2019 Submission - Royal Commission into Victoria's Mental Health System

Organisation Name
N/A

Name
Dr Simon Crisp

What are your suggestions to improve the Victorian communitys understanding of mental illness and reduce stigma and discrimination?
N/A

What is already working well and what can be done better to prevent mental illness and to support people to get early treatment and support?
"The use of innovative treatment modalities - particularly Wilderness Adventure Therapy (Crisp & Hinch, 2004; Bowen, Neill and Crisp, 2016). This modality has been developed and implemented in several state public hospital settings (Child and Adolescent Mental Health Services). community counselling services and secondary schools from 1992 until 2012. It has established a high rate of documented treatment effectiveness, documented extremely high rates of participant satisfaction and engagement of adolescent participants and family members. This modality provides a much needed treatment and early intervention approach to a very hard to engage high needs population where other alternatives are spectacularly unsuccessful, unattractive or ineffective. Unfortunately on-going funding for these programs has been withdrawn or is not available. Despite being a manualised, accredited training and evidence supported treatment it is no longer available. Funding for this well established and highly effective intervention should be sustainably provided."

What is already working well and what can be done better to prevent suicide?
"Wilderness Adventure Therapy (Crisp & Hinch, 2004; Bowen, Neill and Crisp, 2016). This modality has been developed and implemented in several state public hospital settings (Child and Adolescent Mental Health Services). community counselling services and secondary schools from 1992 until 2012. It has established a high rate of documented treatment effectiveness, documented extremely high rates of participant satisfaction and engagement of adolescent participants and family members. This modality provides a much needed treatment and early intervention approach to a very hard to engage high needs population where other alternatives are spectacularly unsuccessful, unattractive or ineffective. It has documented impact on reducing suicide risk in extremely high risk groups and hold unique features especially promising in suicide prevention. Unfortunately on-going funding for these programs has been withdrawn or is not available. Despite being a manualised, accredited training and evidence supported treatment it is no longer available. Funding for this well established and highly effective intervention should be sustainably provided."

What makes it hard for people to experience good mental health and what can be done to improve this? This may include how people find, access and experience mental health treatment and support and how services link with each other.
"Wilderness Adventure Therapy (Crisp & Hinch, 2004; Bowen, Neill and Crisp, 2016). is a highly engaging, novel and non-stigmatising intervention which is both simultaneously effective in treating mental health symptoms as well as enhancing healthy psychological and social

development in you people and families. It is a highly innovative approach that is uniquely able to engage and attract participants who would ordinarily be highly isolated or resistant to engaging in conventional mental health services or treatments offered. This modality has been developed and implemented in several state public hospital settings (Child and Adolescent Mental Health Services). community counselling services and secondary schools from 1992 until 2012. It has established a high rate of documented treatment effectiveness, documented extremely high rates of participant satisfaction and engagement of adolescent participants and family members. This modality provides a much needed treatment and early intervention approach to a very hard to engage high needs population where other alternatives are spectacularly unsuccessful, unattractive or ineffective. Unfortunately on-going funding for these programs has been withdrawn or is not available. Despite being a manualised, accredited training and evidence supported treatment it is no longer available. Funding for this well established and highly effective intervention should be sustainably provided."

What are the drivers behind some communities in Victoria experiencing poorer mental health outcomes and what needs to be done to address this?

"A lack of developmentally relevant treatments and service formats for adolescents, young adults and families is a major factor in on-going poor mental health in the community, especially for high risk groups such as adolescents and difficult to engage groups and communities. Wilderness Adventure Therapy (Crisp & Hinch, 2004; Bowen, Neill and Crisp, 2016). is a highly engaging, novel and non-stigmatising intervention which is both simultaneously effective in treating mental health symptoms as well as enhancing healthy psychological and social development in you people and families. It is a highly innovative approach that is uniquely able to engage and attract participants who would ordinarily be highly isolated or resistant to engaging in conventional mental health services or treatments offered. Unfortunately on-going funding for these programs has been withdrawn or is not available. Despite being a manualised, accredited training and evidence supported treatment it is no longer available. Funding for this well established and highly effective intervention should be sustainably provided."

What are the needs of family members and carers and what can be done better to support them?

N/A

What can be done to attract, retain and better support the mental health workforce, including peer support workers?

N/A

What are the opportunities in the Victorian community for people living with mental illness to improve their social and economic participation, and what needs to be done to realise these opportunities?

N/A

Thinking about what Victorias mental health system should ideally look like, tell us what areas and reform ideas you would like the Royal Commission to prioritise for change?

N/A

What can be done now to prepare for changes to Victorias mental health system and

support improvements to last?
N/A

Is there anything else you would like to share with the Royal Commission?
N/A

International Models of Best Practice in Wilderness and Adventure Therapy: Implications for Australia

An Investigation of Selected Innovative Mental Health Programs for Adolescents using Wilderness and Adventure Activities as a Primary Therapeutic Modality in the United Kingdom, United States of America and New Zealand.

1996 Winston Churchill Fellowship Final Report

Simon Crisp
Department of Child, Adolescent & Family Psychiatry
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Acknowledgments

By necessity, in undertaking a study of this type many people have contributed to its success, at different times and in many different respects.

Of course, first and foremost, this study was possible due to the generosity of the Australian Winston Churchill Memorial Trust. The good faith of the Trust in supporting an investigation in to this area, may assist in revealing the potential for new approaches to bring substantial benefit to the lives of many young Australians and their families. I wish to thank Rear Admiral Ian Richards and all the Trust board members who granted me this Fellowship and the privilege to travel around the world to complete this study. Special thanks must be made to Elvie Munday who was so tireless and committed to ensuring a smooth and successful Fellowship in all of its many aspects with such friendly and reassuring support.

Thanks to my brother Jonathan and colleague Andrew Fuller who also saw the value in this project by encouraging and prompting me to apply for a Churchill Fellowship in the first place.

However, I would not have been successful without the generous support of my referees Dr Lawrie Bartak, Dr Michael Schwarz and Dr Neil Coventry. The importance of this study to the mental health field was also acknowledged by the Austin & Repatriation Medical Centre in granting me leave from my clinical responsibilities for the 3 months required to travel. More personally, my deepest gratitude goes to the dedicated staff of the Adolescent Mental Health Day-patient Team who 'took up the slack' so willingly to ensure the service continued in my absence, and who assumed most of my roles with impressive ability.

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Most importantly, I wish to thank all the many professionals, students and clients I met along the way for their hospitality, support and willingness to share with me so that I could learn. Special mention must be made of the faculty staff and MS (Adventure Therapy) students at Georgia College in Milledgeville, and in particular the College President Dr Ed Spiers and wife Sue whose warmth and enormous hospitality is remembered with fondness. I am especially thankful to those who welcomed me into their homes and made me part of their families: John Barrett and family; Lee Gillis, Jude Hirsch and Megan; Dene Berman and Jennifer Davis-Berman and family; Mike Gass and family; and Colin Goldthorpe and family.

Finally and very importantly, special sincere and heartfelt thanks again go to Associate Professor Lee Gillis at Georgia College for his enthusiastic encouragement, guidance, promotion and overwhelming hospitality right from the time of application for the Fellowship through to my stay with him in Milledgeville and beyond. The many welcoming contacts with people I enjoyed, and the success of this study is very much a result of his generous efforts and support.

About the author...

Simon Crisp **BA, DipEdPsych, MPsych, MAPS** is Director / Senior Clinical Psychologist and Wilderness Adventure Therapy Co-ordinator of the Brief Intervention Program (BIP) at the Child & Adolescent Mental Health Service, Austin Hospital, Melbourne. A Churchill Fellow, he is a Member of the College of Clinical Psychologists of the Australian Psychological Society and a Specialist Registered Clinical Psychologist in the State of Victoria. Simon has been training professionals in Wilderness Adventure Therapy since 1992 through workshops, formal courses and clinical internships. He originally worked as an outdoor educator for Outward Bound Australia in the early and mid 1980's going on to work as a residential youth worker while completing post-graduate studies in psychology. Simon was a founding clinician of the Brief Intervention Program (BIP) in 1992 after having worked in a range of adult psychiatric in-patient settings. He holds qualifications in wilderness safety and first-aid, white-water rafting and climbing and abseiling. Simon is a frequent conference presenter nationally and internationally and lectures other mental health professionals in group therapy, team leadership and innovative models of mental health service delivery.

Table of Programs Investigated (chronological order):

1	*Basecamp* John Barrett	Dumfries, Scotland UK
2	*Brathay Hall Youth Program*	Cumbria, England UK
3	*Eagleville Hospital Challenge Program*	Eagleville, Philadelphia USA
4	*Lifespan Wilderness Therapy Program* Dr Dene Berman & Dr Jennifer Davis-Berman	Dayton, Ohio USA
5	*The Browne Centre* University of New Hampshire Dr Michael Gass	Durham, NH USA
6	*Talisman School - Camp Elliott*	Black Mtn, N. Carolina USA
7	*Project Adventure - LEGACY Program*	Covington, Georgia USA
	Georgia College & State University Department of Psychology Dr Lee Gillis	Milledgeville, Georgia USA
8	*Inner Harbour Hospital*	Douglasville, Georgia USA
9	*Three Springs*	Huntsville, Alabama USA
10	*Colorado Outward Bound School*	Denver, Colorado USA
11	*Santa Fe Mountain Centre*	Santa Fe, New Mexico USA
12	*Anasazi Foundation*	Mesa, Arizona USA
13	*Aspen Youth Alternatives*	Loa, Utah USA
14	*Special Education Service - Otago*	Portobelo, Dunedin NZ

1 Introduction

An investigation into innovative methods using wilderness and adventure interventions in mental health programs is particularly important for Australia at this time. The increase of mental health problems in children and particularly adolescents, includes one of the highest suicide rates in young people in the world; a situation of great concern. This calls for more effective and more accessible means for not only treating, but providing protection against severe mental health problems in adolescence and adulthood.

While conventional mental health treatments for adolescents are typically based upon methods developed for use with adults (Poot, 1997), the needs of adolescence are significantly different, in many important respects. Add to this the high incidence of social problems in adolescence such as learning problems and school refusal, homelessness, delinquency, drug and alcohol abuse, family problems, and unemployment. Young Australians with mental health problems typically find themselves caught in a position of being reluctant to seek help and difficult to engage in a treatment process which may be perceived as adding further stigma to their already tenuous identity and self-esteem.

What is needed is a treatment approach which gives young people the chance to address the core of their mental health issues in a way that minimizes stigma, but also promotes development in crucial areas of competency and performance, responsibility, judgement, social orientation, motivation and identity. Benefit would also be provided by enhanced resilience to stressors and precipitants of mental health problems therefore adding protection against future difficulties. Evidence already points to wilderness and adventure therapy as being able to provide this (Gillis & Babb, 1992; Gass, 1993; Berman & Davis-Berman, 1994).

In Australia, wilderness and adventure experiences have been seen as particularly effective in the promotion of character and motivation in young people since the mid 1950's (Richards, 1977). However, only recent times have seen the application of these interventions in the treatment of mental health problems in Australia (Crisp & Aunger, in press). Many innovative and varied programs have existed and been developed in other countries for many years, even decades. None more so than the United States, and to a lesser extent New Zealand and Great Britain.

A study of different mental health programs that use wilderness and adventure interventions can help the field in Australia in many ways. A hindrance to this field here, but less so internationally, is a lack of professional unity. This appears to be based in part on a lack of clarity around theoretical and practice issues. Additionally, an obstacle the field faces internationally is some confusion around language including universally accepted terms and concepts when describing and discussing program characteristics and methods of practise. A necessary first step in reporting and discussing the field is to define and delineate terms. Learning from experiences overseas we may also be able to clarify some of the challenges facing the field, anticipate pit-falls, and develop clear directions and potential strategies for developing the field to the highest possible standards in Australia.

The Australian context is different from other countries in many respects, not the least in its health and mental health systems. Given this, contextual characteristics of different countries need to be taken into account in drawing conclusions about the best options for Australia.

Having been involved in outdoor education since the early 1980's and wilderness-adventure therapy since 1992, I am persuaded of the need for better theoretical development and more research that holds clinical currency. Additionally, those programs and outdoor educators in Australia who work with 'at risk' client groups are calling for training in ways that maximise benefits for their clients whilst guarding their mental health. Without clear guidelines for sound models and methods of practice the risk remains high for at best inefficiency and poor outcomes, if not detrimental effects. This need has become highlighted recently by a fatality in the USA (Berman, in press; Carpenter, 1995; Griffin, 1995; Krakauer, 1995).

While undertaking this study tour, it quickly became apparent that culture, history and tradition had a significant influence on methods of practice. In particular, how culture relates to group norms, authority of the therapist, group affiliation, meaning and connotations of language, identity, and so on. In addition, notions of mental health and the sociological influence on problems effect how programs are developed and what their place is relative to other services. Together with historical precursors, this has contributed to the diversity of program types and how they are applied.

The need to develop directions and strategies for the evolution of a profession in Australia is also discussed here. In order to increase accessibility and maintenance of the highest standards, as well as supporting evaluation and improvement of practice, a united profession is desirable.

While this report is written primarily for mental health professionals and administrators, it is hoped that it will be of relevance to professionals and academics in other fields such as juvenile justice, youth work, outdoor education, special education, and so on.

There were four main aims of the study:

1) to advise other mental health professionals, administrators and government bodies on the current state of best practice so as to enhance the field in Australia,

2) to directly apply and adapt accumulated international experience of direct services in Australia and to determine best practice for Australian conditions through clinical research,

3) to propose models and/or strategies for the development of a wilderness and adventure therapy profession in Australia and,

4) to advise on, and develop training and education programs for practitioners and program administrators based on **1)**, **2)** & **3)**.

The first objective of this report is to describe each of the programs investigated in detail (Appendix B) so that they may be compared in key areas (Appendix A). Second, to clarify any theoretical issues which may be relevant to best practice. Finally, to discuss and draw conclusions about practice and professional issues from the programs investigated and discussions with leaders in the field.

It is my hope that this report will be distributed as widely as possible so that my experience can be shared with as many others as possible in the hope that the field, and ultimately clients may benefit. Therefore, small portions of this report may be copied for professional, educational and

research purposes on the understanding that it will not be modified or misrepresented, and that authorship and the Australian Winston Churchill Memorial Trust will always be acknowledged.

2 Parameters & Terminology

Scope of the Study and Reliability of Data

A significant limitation of this study is that most contacts are confined to those known about through published literature and the USA based Association of Experiential Education (AEE). This has resulted in a bias to programs which communicate through the AEE or publications in the English language. It should be noted that there are wilderness and adventure oriented programs in Europe which were not included in this study.

The data for the study is derived from a combination of structured and unstructured interviews, program literature (where available), direct observation and participation in activities with client groups, and observation and participation in training programs.

The report is primarily based on the programs listed in the table on page I. Additionally, many of the published leaders in the field were interviewed including Lee Gillis PhD, Dene Berman PhD and Jennifer Davis-Berman PhD, and Michael Gass PhD. Training programs were also visited including the Masters degree in Psychology (Adventure Therapy track) at Georgia College, Milledgeville, the Wilderness Counselling Stewardship course run by Lifespan Wilderness Therapy Program, and under-graduate and graduate programs in Outdoor Education at the University of New Hampshire at Durham.

Definitions and Assumptions

Travelling between countries, it quickly became apparent that professionals in the countries visited used terms differently. This variability of meaning also occurred between those people interviewed within the same country. For consistency in this report and clarity in communication, I have attempted to define some key terms and draw some distinctions which I feel are useful and important. Additionally, in reading the literature, it is apparent that terms often take on different meanings depending on the author. Much of the empirical research is very poor at providing operational definitions which would allow replication of the study reported. This sloppiness significantly undermines the validity of empirical research.

The definitions I have arrived at are the result of discussions with numerous professionals and through observations of practice within programs. These terms and distinctions are the simplest and most useful I could develop. While some authors may argue about the following definitions, there is a need to be clear about the meanings of key terms I shall be using in this report.

Therapy versus Program

'Therapy' is a method of clinical practice, including a set of techniques based on a theory of personality, behavioural and psychological problems and process of change (see Crisp, 1996 for further discussion). This is in contrast to a 'program' which, in this case is a treatment service and includes all the physical and human resources, administrative structures, service aims,

philosophy, mandates, and so on. While a program may utilise a form of therapy or therapies, it is not in itself 'therapy'. Therapy is undertaken at a point in time by a person or persons trained to do so with a client who presents for help.

Therapy and Psychotherapy versus Counselling

While significant variation exists across countries to the degree of this distinction, I believe that to make a clear differentiation will allow more informed description and discussion. Generic Australian, New Zealand and United Kingdom use place ***counselling*** at one end of a continuum of short-term, goal directed, narrowly aimed interventions which typically involve facilitating the client to draw on his or her own resources and overcome a presenting impasse. Typically, client problems that are dealt with here are within the normal range of human difficulties. A diagnosis is not usually made nor utilised in this process. Typically, counselling is done in many non-clinical settings by professionals without training or expertise in abnormal psychology and psychiatric disorders.

This is in contrast to ***therapy*** and ***psychotherapy***[1] at the other end of the continuum. Therapy and psychotherapy typically concerns itself with the amelioration of some condition or disorder which is causing or contributing to significant impairment in function in a client's life over a period of time, often involving a history of fixed and repetitive behavioural patterns (see also Davis-Berman & Berman, 1994, p199-200). Typically, a diagnostic process helps to understand the nature of this disorder and its impact on the functioning of the client. Therefore the practice of therapy is usually associated with an assessment, or analysis of underlying processes which may not be obvious nor available to the client. Most often therapy is undertaken in a clinical setting by a mental health professional with training and expertise in abnormal psychology and psychiatric disorders.

Adventure Therapy

Adventure therapy as a term is frequently used to include, more-or-less, the entire field of wilderness, outdoor and adventure interventions. Other times it refers to specifically short-term, non-wilderness based, non-residential approaches such as ropes course and initiative activities. This becomes confusing, and tends to hide important differences in practice and assumptions about therapy.

Here, I define adventure therapy as a therapeutic intervention which uses contrived activities of an experiential, risk taking and challenging nature in the treatment of an individual or group. This is done indoors or within an urban environment (ie. not isolated from other man-made resources), and does not involve living in an environment (eg. participants do not cook their own meals or sleep overnight). The emphasis is on the selection and design of the activity to match targeted therapeutic issues and the framing and processing of the activity (Gass, 1995). Examples of such contrived activities include group trust, initiative and problem solving activities (see Rohnke, 1984, 1991; Rohnke & Butler, 1995), ropes and challenge elements (low

[1] In Australia, ***psychotherapy*** usually refers to psychoanalytic or psychodynamic therapy and its variants, while in the USA psychotherapy is used very broadly to refer to any form of talking therapy.

and high), indoor climbing gyms, and so on. I would distinguish adventure therapy by its emphasis on the contrived nature of the task, the artificiality of the environment and the structure and parameters of the activity being determined by the therapist, such as setting of rules, goals and criteria for success or failure. Specific outcomes are usually planned and sought for through careful framing prior to the activity. In practice, adventure therapy typically utilises metaphoric, strategic and solution oriented paradigms (for specific applications see Gass, 1993), and often addressed specified behaviours such as impulsiveness, assertiveness, substance abuse relapse, etc. Theory of change tends to be based around the systemic concept of 'disequilibrium' (Nadler & Luckner, 1992).

Wilderness Therapy

Wilderness therapy can be contrasted with adventure therapy through the emphasis given to the impact of an isolated natural environment[2] and the use of a living community. Theory of change was often based on concepts of 'adaptation'. The combination of environment and community can be encapsulated in the notion of a 'therapeutic wilderness milieu', and typically include two different intervention formats: 1) wilderness base camping establishing a camp with minimal equipment in an isolated environment, and 2) expeditioning moving from place to place in a self-sufficient manner using different modes such as back-packing, rafting, canoeing, cross-country skiing, etc. Base camping is frequently combined with expeditioning, while expeditioning is often used exclusively. Therapeutic paradigms frequently include generic group therapy and group systems models, and inter-personal behavioural methods. Experiencing of natural consequences of behaviour was also emphasised. Outcomes are frequently related to social roles, patterns in relationships and notions of adaptation (both social and environmental). Change is often (but not always) seen to be holistic, coupled with personal and inter-personal insight, and to emerge from a social process over time. Perhaps overly simplistic, wilderness therapy involves modified group psychotherapy applied and integrated into a wilderness activity setting.

Wilderness-adventure Therapy

'Wilderness-adventure therapy' can be thought of as distinct from, but related to the previous two types. Here wilderness activities may be done in a short session format, or where a natural (but not necessarily isolated) environment is used for an adventure therapy type of activity. Examples include: rockclimbing or abseiling on natural rock or a caving activity conducted in a real cave, over several hours or within a day. The activity does not extend over night (so there is minimal emphasis on community living), but the activities utilize qualities of the natural environment. For research purposes 'Wilderness-adventure therapy' in particular should be differentiated from 'wilderness therapy' and from 'adventure therapy'.

Therapeutic Wilderness Camping

[2] An emerging holistic paradigm that emphasises the importance of the wilderness environment and lifestyle in healing is "ecopsychology" (see Roszak, Gomes & Kanner, 1995).

Therapeutic wilderness camping involves long-term residential camping in primitive accommodation in an isolated area (see Gass, 1993, p10). Typically, the isolated setting underscores a model of community living. Emphasis is placed on the development of pro-social relationships through a structured program of behaviourally moderated privileges. It can be distinguished from 'base camp wilderness therapy' through its extended time-frame format (usually a minimum of 12-15 months full-time). Additionally, a focus is given to the comfort that comes from individual effort in shaping the environment through hut building, furniture making, etc. The setting also often involves a developed site with permanent fixtures and ancillary buildings and facilities.

Wilderness and Adventure Therapy versus Enrichment versus Recreation

Based on the surveyed aims and program descriptions of a number of different adventure therapy programs for families Gillis, Gass, Bandoroff, et al. (1991) placed these along a uni-dimensional continuum representing "...the depth of intervention used..."(cited in Gass, 1993, p74). This is represented by Figure 1 (adapted from Gass, 1993).

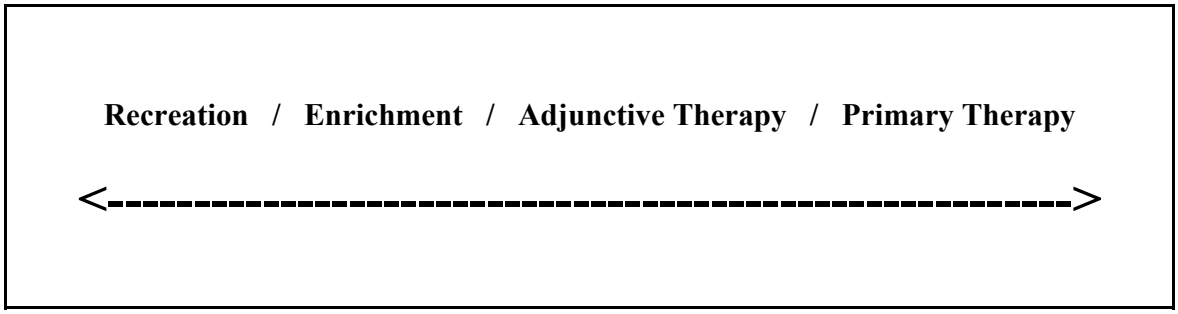

Figure 1.

The level of 'depth' is determined according to the following surveyed factors; specific needs of the client and the complexity of therapeutic issues, background training and therapeutic expertise of the therapist, length of time, context of the client, presence or absence of follow-up, availability of adventure experiences, and therapist's ability/limitations in using adventure experiences in his/her treatment approach (from Gass, 1993, p74).

However, rather than a graduated continuum, it would seem even more useful to highlight distinctions based primarily on the presence or absence of therapeutic procedures, such as an assessment and diagnostic formulation, specificity of treatment objectives that relate to causative processes, and the use of an individual treatment plan (Figure 2.). Length of time, context of the client, complexity of client's therapeutic issues, availability of adventure experiences and the therapist's ability/limitations in using adventure experiences in his/her treatment approach, although related are functionally independent of whether a therapeutic approach is being utilised (according to the definition used here).

Recreation	Enrichment	Therapy

Figure 2.

As described above, ***therapy*** involves the treatment of an underlying dysfunction which seeks a specific change following a diagnostic analysis of a long standing problem or behavioural pattern (Crisp, 1996).

Enrichment is the provision of a positive and potentially beneficial experience which can enhance the client's position relative to their disorder or dysfunction but does not attempt to directly address the underlying cause of a client's problem. Any therapeutic change, which may occur is likely to be unpredictable and unplanned and may be transitory in nature. This likely result occurs because the underlying process which maintained the dysfunction would probably still remain. Indeed, many practitioners report concerns regarding the short-lived nature of some therapeutic changes they had seen clients make because underlying contributing and maintaining factors such as family issues or peer influences were not addressed. Enrichment interventions typically aim to give the client a positive experience which is intended to be of benefit. There is no, or at most only a cursory attempt to understand the causal or maintaining processes underlying the client's dysfunction. Indeed, interventions are commonly made on the assumption that the experience in itself will move the client towards psychological health. That is, individualised outcomes for the client are not specified nor deliberately worked towards.

Here we can see that although enrichment may not directly deal with the process underlying dysfunction, it is still valuable as the experience may indirectly move the client to a more advantageous position relative to their problem. Alternatively it may strengthen a client's resources or coping mechanisms against the factors causing dysfunction following treatment. An example would be to increase self-esteem for substance abusers rather than deal with the causes of substance abuse itself, such as depression or isolation or sexual abuse, etc.. However, as the process underlying the dysfunction is likely to be unchanged, enrichment does not constitute treatment of the disorder, and is therefore importantly different from therapy.

Recreation lies in contrast to both therapy and enrichment, particularly in the assumption of adequate functioning and psychological health. Here, the individual will extend their normal functioning to greater levels of achievement based on a spontaneous learning process which is determined by the interaction of the individual with experience. Clearly the aim is not to set out to address an individuals' problem but to enhance achievement processes. Again, where an individual may be able to increase achievement this is likely to be of benefit but clearly does not involve treatment of dysfunction, and therefore is not therapy.

In practice, the above conceptual distinctions are typically drawn by the presence or absence of a number of important elements. Not least is an implied or explicit contract between client and service provider (see Ringer & Gillis, 1995). This contract includes the intended aim, and therefore outcomes of the intervention, the role the client will take, including the degree and type of disclosure made, and what the role of the person providing the intervention will take with the

client, that is, as therapist, facilitator or educator. The steps of making some form of diagnostic assessment and deriving a treatment plan based on the specific individual circumstances of the client are crucial elements of a therapeutic process. Further, drawing on a knowledge base and theory about the type of dysfunction or disorder during assessment will guide a therapeutic approach. On the other hand, enrichment and recreation typically takes a universal or standard approach to all clients that relates little to a theory of therapy or psychological disorder.

An analogy may be useful to illustrate these points. In a physically normal person, exercise such as running may be highly beneficial to increase fitness and improve quality of life. However, for someone with a broken leg in need of treatment, what is 'therapeutic' is a treatment intervention which takes account of the nature of the dysfunction (ie. Diagnosis of the type and site of the break, and a re-aligning the bones into the correct position) along with a treatment plan that is based on a knowledge of the healing process (ie. immobilisation, followed by graduated specific exercises which are reviewed and modified), and so on. While gentle, cautious walking may be an adjunct to the treatment process at the appropriate time (like enrichment), and running becomes beneficial once the limb is functional (like recreation), neither of the latter two are sufficient as a treatment or therapy for a broken leg.

Uni-modal therapy versus multi-modal therapy versus adjunctive enrichment

While enrichment has been differentiated from therapy in the previous section, there are clear differences in the mode of wilderness and adventure therapy which hold important distinctions from what can be termed 'adjunctive enrichment' (Figure 3.).

<table>
<tr><td rowspan="2">Recreation</td><td>Enrichment</td><td>Uni-modal Therapy</td></tr>
<tr><td>Adjunctive Enrichment</td><td>Multi-modal Therapy</td></tr>
</table>

Figure 3.

Uni-modal Therapy is where wilderness or adventure therapy is the only therapeutic intervention used to treat a disorder. There may be supporting clinical activities surrounding this including such things as an assessment process, case management and follow-up, but the primary therapeutic intervention is the wilderness or adventure therapy. Group size may vary but tends to be similar to other group therapies (ie. 6-8). An example of this includes the Lifespan Wilderness Therapy Program. These types of interventions are typically carried out by highly qualified clinicians with a broad range of therapeutic skills. This should be contrasted and compared with Gillis, et al.'s (1991) description of 'primary therapy'.

Multi-modal Therapy is where wilderness or adventure therapy is combined with other therapies either concurrently or in series. There is frequently a clear clinical rationale used to guide the way the therapies are combined. Common examples include combining adventure therapy with individual therapy or group therapy as part of an overall therapeutic program (concurrent: eg.

Eagleville Hospital), or individual or family therapy prior to, or following a wilderness therapy intervention (in series: eg. The Browne Centre, Adventure Development program). The objective of this paradigm is that the different therapies combined will have a complimentary and compounding therapeutic effect.

This is to be differentiated from adjunctive enrichment. Gillis, et al's continuum model uses the term "adjunctive therapy" where it is implied that wilderness or adventure therapy as an adjunct to other therapies involves a lesser (therapeutic) "depth"' than "primary therapy". Examples which contradicted this notion were found, such as a number of therapeutic wilderness camping programs. A more useful and accurate distinction can be made between programs which use wilderness and adventure experiences as an adjunctive enrichment to other therapies, and those programs which use multi-modal wilderness and adventure therapy with conventional therapies.

In the former, the wilderness or adventure enrichment does not involve therapeutic practices, while in the latter the therapeutic process of the wilderness or adventure therapy intervention may be just as involved as uni-modal therapy. It seems more accurate and more useful not to use the term 'adjunctive therapy', but rather to differentiate between 'multi-modal therapy', and 'adjunctive enrichment'. Similarly, Gillis, et al's notion of a continuum of therapeutic depth seems less helpful than discrete delineation. By my definition above, either something is therapy, or it is not.[3] What should differentiate the two is whether therapeutic procedures are instituted (therapy) or don't occur (enrichment).

[3] In the same way someone is either a 'therapist', or they are not. You cannot be 'a little bit' of a therapist, and someone else 'very much a therapist'.

3 Typology of Different Programs[4]

The Programmatic Nature of Wilderness and Adventure Therapy

From outdoor education origins, and through the practical necessity of providing the physical, safety and support resources for wilderness and wilderness-adventure therapy, interventions have been conducted most frequently in a 'program' format. While group, trust, initiative and problem solving activities usually require minimal physical resources, most other adventure therapy and wilderness therapy interventions additionally require substantial technical, support and safety resources.

Often, the 'frame' within which wilderness and adventure therapy is conducted may be dictated by the resource limitations, or opportunities available (both man-made and natural). For this reason, most therapy tends to be programmatic in its location, time frame, activity types and so on. Where there are greater options in this regard, wilderness and adventure therapy interventions may be better tailored to client need, or altered to be more appropriate to the therapeutic progress of the clients over time.

Many programs including therapeutic wilderness camping and wilderness expedition programs have established frameworks which are based on therapeutic practices, but which are clearly programmatic in the manner in which interventions are implemented. For example, developing a daily or weekly timetable and a universal behaviour modification system based around levels of privilege clearly constitute a program in their conceptualisation and implementation. This approach, although apparently effective, is unusual when compared with conventional clinical application of behaviour modification, which is highly individualised. Wilderness and adventure therapy programs which use a flexible, eclectic approach depending on individual client need, and events as they unfold are much closer to conventional therapeutic practice.

Uni-modal and Multi-modal Based Programs

A number of different approaches I observed fall into the following definitions.

Uni-modal programs
Of those investigated, uni-modal programs tended to be longer-term approaches such as wilderness therapy and therapeutic wilderness camping programs. While no other forms of therapy were undertaken, some screening and assessment sessions were often included prior to the therapy intervention, and/or parent contact was maintained for the purposes of discharge planning and other case management needs. A good example of this type is the Lifespan

[4] A good discussion of the variety of therapeutic and enrichment programs in the USA is given in Davis-Berman & Berman (1994, p 61-84).

Wilderness Therapy Program (which also functions as multi-modal depending on client need) and Aspen Youth Alternatives.

Multi-modal programs

These programs were the majority of those investigated, and spanned a range of settings from clinical in-patient (eg. Eagleville Hospital), comprehensive mental health facilities (eg. Inner Harbour Hospital), experimental out-patient programs (eg. The Browne Centre), therapeutic wilderness camping programs (eg. Three Springs), and wilderness and adventure therapy (eg. Colorado Outward Bound School Survivors Of Violence program, and the Adventure Development program).

Most commonly, the wilderness or adventure therapy was combined and integrated with parent and/or family therapy either concurrently or in series. This indicates the clear need to address broader systemic issues, which is consistent with conventional clinical practice. In larger, highly structured programs, other group therapies such as drama and art therapy, equestrian therapy, horticulture therapy, etc. were combined with wilderness and adventure therapy. Less common was the routine combination of individual therapy with wilderness and adventure therapy. This may be indicative that most programs tended to emphasise the working of individual issues through the group, or that any unresolved individual issues are addressed prior to the wilderness or adventure therapy intervention.

Adventure Therapy Based Programs

Typically shorter term, part-time or one-off over several days, adventure therapy programs tended to be facility based. Examples of this include The Browne Centre, Brathay Hall and Project Adventure LEGACY program. However, the latter two sometimes undertook short camping expeditions. Clinical programs were multi-modal incorporating other group therapies such as Eagleville Hospital, while some non-clinical programs where integrated with out-patient family therapy such as The Browne Centre.

Wilderness Therapy Based Programs

These tended to be medium to long-term and expedition based. They were conducted where and how the environment would allow. They tended to be either larger scale such as Anasazi Foundation and Aspen Youth Alternatives or shorter-term and single group such as with the Lifespan Wilderness Therapy Program and Adventure Development program. The former type used a multi-level staff supervision model where direct-care staff operated a universal approach under supervision, and the latter type tended to use a small staff of fully trained mental health professionals who used generic group therapy approaches, adapting interventions to the individual needs of clients.

Wilderness-adventure Therapy Based Programs

These programs were less common but did exist where environmental conditions were favourable. Examples include the Basecamp, Inner Harbour Hospital, and Colorado Outward Bound School SOV program. In practice, all of these programs would undertake shorter

wilderness therapy expeditions as well as using wilderness-adventure therapy. Santa Fe Mountain Centre uses this approach in combination with community building activities with a strong emphasis on adapting interventions to reflect cultural, ethnic and native American interpretations.

Therapeutic Wilderness Camping Based Programs

These full-time, residential programs tended to be easier to differentiate from other approaches because of the length of program (usually at least 12 months) and the full-time residential setting (7 days per week, 52 weeks per year). Examples are Talisman School at Camp Elliott and Three Springs. There was often an emphasis on broad-ranging re-socialisation through structured privilege systems using the small community that was created as part of the program. Wilderness and adventure therapy was often used extensively as part of this overall approach. Here the program provided a base community experience within which other therapeutic approaches were included, as well as adapted mainstream schooling.

4 The Influence of Context: Economy, Culture & Traditions

It quickly became apparent that broader systemic and social factors have influenced the establishment and growth of wilderness and adventure therapy in the three countries visited. These variations were also apparent regionally, particularly within the USA. For that reason the following tentative hypotheses and observations are included for consideration. An excellent historical account of the development of wilderness therapy programs in the USA is given in Davis-Berman and Berman (1994).

Macro Level

Health systems varied between countries which appeared to significantly influence the nature and development of wilderness and adventure therapy services. For instance, in the USA the dominance of a large private health system allowed innovative programs to develop and expand. In the UK and New Zealand with a reliance on the public mental health system, treatment services typically stayed within conservative bounds of traditional practice. In these countries innovative programs seemed to have been established in non-mental health sectors such as youth welfare and private outdoor education centres in the UK, and special education services in New Zealand. Consequently links between mental health services and these programs were poor, meaning access for mental health clients became difficult (Basecamp, Brathay Hall).

In the US, access was a significant issue to those with social disadvantage because of the predominance of the private sector in the health system. However, some programs offered scholarships or off-set costs for the economically disadvantaged through higher earning corporate work.

Social class appeared to be an issue in relation to the values many programs in all countries were implicitly encouraging. Not surprisingly, many programs reflected white, middle-class values, particularly around cultural and group norms and inter-personal behaviour. The degree to which this occurred seemed related to the history and traditions embraced by some programs. However, there were some programs which placed a high priority on class and cultural congruence in their service orientation. Notable examples include Basecamp, Santa Fe Mountain Centre, and Colorado Outward Bound School. Santa Fe Mountain Centre saw one of its primary service aims as local ethnic community building and community collaboration.

In a similar way, secular religion significantly shaped one program studied: Anasasi Foundation. Here, values of the Church of Latter Day Saints (Mormon Church) were central in concepts of mental health and family relationships. Daily bible study and parent education in religious philosophy were an integral part of the treatment process.

National history influenced different models significantly. Examples of this are Brathay Hall, which is based on the tradition of character development and personal challenge stemming from events such as the second world war and; therapeutic wilderness camping programs in the southern USA which stem from the history of early pioneer settlement and native American culture. While in the south-west USA, native American life, wilderness exploration and

pioneering history has shaped the format of those programs to be more expedition based.

Cultural notions of mental health seem to have also had an impact on the visability and community acceptance of mental health services generally. Mental health problems seem to hold a degree of stigma in the UK, which may be diverted into notions of 'youth at risk', delinquency, poor character development or class related issues such as social and economic disadvantage. Whilst in the USA, mental health services tend to be seen as a solution for problems such as deliquency, family break-down, family dysfunction and so on. Social and economic disadvantage seem to be given lesser importance as a factor in mental health problems and appears to be associated with greater stigma.

Micro Level

Historical, cultural and class influences seem to have lead to different values and attitudes amongst clients, particularly in relation to authority, the importance of autonomy and individualism and group affiliation. These differences have significant influences over therapeutic approaches and expectations of the therapist when conducting wilderness or adventure therapy. While class issues and expectations appear to be significant in how clients are worked with in the UK, things like street gang culture, attitudes to authority and group affiliation shape methods for USA clients.

Certainly, there seem to be significant differences between Australian adolescent group behaviour and that of other countries. For example, while Australians tend to value independence and coping by oneself, Americans appeared to place a high value on gaining support and acceptance from the group. While, standards of behaviour such as the demonstration of respect, honesty and supportive confrontation and feedback were relatively unquestioned by USA clients, this is less so in Australia. Here, anti-authoritarian attitudes and conflict avoidant behaviour is more prevalent. Again, while authority of the therapist is a relative 'given' in the UK and USA, this is often a source of tension with Australian clients. Group approaches such as Adventure Based Counselling (Schoel, Prouty and Radcliff, 1988) require adaptation to take account of these cultural differences. Indeed, it may be the case that such approaches are not as effective for many Australian clients as they are in the USA where they were developed.

5 Key Findings & Conclusions

Current Status and Future Directions of the International Field

It can be concluded that much innovation and program development has occurred in the USA in recent decades, and as such the literature is dominated by North American authors. This places the USA to lead the field internationally which is evidenced through international memberships with the Association for Experiential Education. While countries will, and should develop unique approaches and practices for local conditions, the field in the USA will tend to remain a leading reference point and be a source of information about best practice in the foreseeable future. However, it is important to consider the influences of local issues and how these shape the field, and to appreciate the unique context, needs and opportunities in Australia.

It is clear that health and mental health systems in the USA underpin many of the directions the wilderness and adventure therapy field takes. Concerns and debate around issues of practice seem to be often influenced by economic concerns. Staffing and program format are apparently shaped significantly by funding opportunities and constraints. Indeed, it was not the lack of research that was considered a potential obstacle to the field's development, but funding mechanisms of insurance companies; wilderness and adventure therapy are relatively cost intensive (Michael Gass, private conversation)

This appears to be a reason why brief, strategic and solution oriented therapies, including system approaches, heavily influence models and theoretical development (as is the case generally in the therapeutic professions in the USA). Psychodynamic and other established theories were seldom discussed as offering much understanding. While the relative benefits of different therapeutic approaches will be a point of debate for some time, local factors in the USA (that are not so relevant in Australia) may preclude the development of alternative models which may serve the field well here.

Concerns and debate over the term "therapy" in the USA appear to accompany fears that how this term is defined may exclude may non-licenced or non-therapeutically trained outdoor educators**.** There is a common belief that the adventure experience is so powerful that it is inherently therapeutic regardless of aims, knowledge, and possibly even skill of practitioners. Not-with-standing the power and value of an expertly delivered adventure experience, it is extremely important to keep separate the concept of ***therapy*** to a narrow and strict definition in this context as not doing so casts confusion and needless debate over semantic, theoretical and practice issues. At this stage, the profession is both enriched but also handicapped by a diverse range of professional and theoretical affiliations each with their own professional agenda and terms of reference. This continues to lead to obfuscation in language and theoretical assumptions. While it may take some time to form a universal theoretical and semantic base, authors should endeavour to define their terms whenever entering the debate.

The implications for Australia are that while the bulk of literature will come from the USA, Australia needs to maintain and develop local arenas focussed on local needs for developing and debating theoretical and practice issues. There is some risk that one method and theory will dominate (for example, little is published from a psychodynamic or other perspective). There is

a

need to evaluate the relevance and efficacy of North American (or British) approaches and adapt these to local social, cultural, health care and environmental conditions. An indicator of this point may be the limited impact ***Project Adventure*** has had on the outdoor education scene in Australia since it was established here in the late 1980's, compared with its success in the USA.

Another significant factor that needs to be considered is that Australia has a long and strong tradition of outdoor programs for normal (and to a much lesser extent, mental health) populations. Historical socio-cultural origins of these are similar to the USA, as an early pioneering history, camping programs such as the Scouting movement, and an even earlier establishment of Outward Bound in the mid 1950's. It is for these reasons that outdoor education is well established in this country, the exception being the application of outdoor activities as a treatment of mental health problems.

Program Design versus Practitioner Competencies

Program format, structure and activity types undoubtedly shape the experience for the client and create the frame for therapeutic work. However, the skills of the therapist significantly determine the specificity of psychological and behavioural changes necessary for treatment of underlying dysfunction (Davis-Berman & Berman, 1994; Gillis, 1995). Often these processes and techniques are complex. Frequently with adventure therapy programs, a detailed assessment of the individual or family is used to determine activity selection and metaphoric framing of activities, while elaborate de-briefing and 'processing' following the activity seeks quite specific outcomes. Additionally, in wilderness therapy programs therapists typically bring high levels of skill in case analysis and a range of group therapies. Also, wilderness therapists need to be able to manage aggressive behaviour, to respond to crises and manage psychiatric emergencies in isolation from other assistance. For an excellent discussion on this and related issues see Berman (1996).

Currently, there is some debate around specific competencies for the adventure and wilderness therapist, ***as a therapist***, in addition to the safety and technical skills needed for the role. The Association of Experiential Education is in the process of drafting guidelines for this. There is an additional issue of wilderness and adventure therapy teams where the therapeutic skills of one person are brought together with the safety and technical skills of another person to cover all competency areas. Some practitioners hold concerns about the adequacy of these arrangements. Simply adding these skills together is not enough to ensure good practice, and how the skills would work together in a complimentary way is perceived as particularly problematic (Colin Goldthorpe, private conversation).

Most practitioners I discussed this with conceded the expediency of combining two people with requisite skills and would acknowledge that to have therapists "cross-trained" (to be fully competent in both safety and technical as well as therapeutic areas) was preferable. The arguments against cross-training were consistently based on economic and practical considerations which were of most concern in the USA. That is, any form of training in the USA (as a mental health professional or in outdoor skills) was very costly to the individual compared with training in New Zealand and Australia.

From a ***program*** perspective of those I observed, practitioner roles allow a rough dichotomy to be drawn. On one hand, larger scale programs employed many staff within a hierarchical supervision structure. Here, lay-counsellors under supervision of qualified and licenced counsellors undertook the bulk of direct care. They typically took the role of administering a well developed, universal behaviour modification program - most commonly based around a level system which accorded privileges upon achievement of desired behaviour over time. Progress was reviewed routinely and any other issues were addressed through case planning meetings. Additional intervention strategies would usually be implemented by the lay-counsellors under supervision within the structure of this universal behavioural program.
On the other hand, other programs which were usually shorter and smaller, had fewer staff but they were usually qualified mental health professionals with additional wilderness and adventure training. The wilderness or adventure medium was used for the application of sophisticated therapeutic approaches such as systemic, strategic, narrative interventions as well as group psychotherapy. Here, complex assessment of the client (and/or family) was inter-linked with therapy and interventions were highly individualised. Typically, client change appeared more rapid and the therapeutic approach was reviewed and modified more frequently (ie. daily).

This dichotomy could be summarised in that longer-term, larger programs emphasised generic program structures to achieve broad based universal changes, while shorter-term programs emphasised therapist analysis and eclectic, selective intervention to achieve individualised outcomes. According to the definitions given earlier, the former (programmatic type) borders on enrichment in its approach, while the later (practitioner type) would constitute therapy.

Client Types, Diagnostic Issues & Differential Outcomes

Practitioners reported some variation in client outcome between wilderness and adventure therapy. Client factors reported to be associated with better outcomes included;

- having a physical orientation,
- capacity for reflection,
- environmental awareness,
- group composition,
- families with the ability to think metaphorically (family adventure therapy),
- recency of trauma or mental health problem,
- internalizing disorders,
- family support,
- greater understanding of group processes,
- educational success,

Those clients thought to respond well included; voluntary clients (compared with involuntary clients), older and female adolescents, suicidal and depressed clients, and clients with low motivation and low self-esteem. Oppositional-defiant Disorder & Conduct Disorder (if spread amongst other clients), Borderline Personality Disorder and younger males were thought to respond better here than to conventional therapies, but all require longer treatment.

Outcomes were thought to be poorer for males with long established behavioural patterns, clients with IQ less than 80, clients with sociopathic traits, Attention Deficit Disorder with hyperactivity, Conduct Disorder and family dysfunction. Substance abusers were felt to be more difficult to motivate.

Here Conduct Disorder seems to have both good and poorer outcome. This possibly indicates some other factor which mitigates their response to therapy. Some general comment on applied issues and the value of wilderness and adventure therapy for different mental health problems follows.

Conduct and other Behavioural Disorders

These disorders were often the target of the longer term wilderness therapy and therapeutic wilderness camping programs. A broad range of pro-social behaviours are modified using a well developed and structured universal behaviour modification program based on a level system of privileges. With a homogenous client group with behavioural problems this generic approach appears highly successful in making significant changes. Work is typically done with parents to develop better parenting approaches for when the client returns home. It would seem that the isolated, residential and long-term nature of this approach are important factors in its success.

Personality Disorders

Not often the stated target client group of any programs, many programs did treat a significant proportion of clients who had emerging personality disorder, or who were at risk of developing one. While no one type of program seemed most suited to this client group, different program types seemed able to offer many important therapeutic benefits. The residential or wilderness based programs appeared particularly so because of the emphasis on an intensified therapeutic milieu and the scope for developing longer-term relationships with therapists and peers. Tippet (1993) provides an excellent discussion of some of the developmental and relational issues that underlie wilderness and adventure therapy for borderline adolescents. With these clients, the opportunities for peer role-models, corrective relationships with therapists as parent figures and development of positive risk-taking, living skill competencies and reality testing are very significant. Such appropriate and intensive therapeutic opportunities seldom exist in conventional treatment modalities. The reader is referred to Tippet (1993) for a discussion of applications of wilderness therapy with borderline personality disordered adolescents.

Psychosis

Clients in recovery from psychosis are often included with other adolescents in adventure therapy and less often, wilderness therapy programs. While adults in this client group have psychosis specific programs, this seems not to be the case for adolescents. Because of the psychiatric/medical nature of the disorder, these adolescent clients would generally be treated with conventional approaches such as in-patient admission and out-patient monitored medication. Because of the need for relatively intensive medical monitoring, the financial constrains of this presumably preclude wilderness based programs. Clinical experience in Australia suggests that those recovering from psychosis do benefit from wilderness based therapy as a form of rehabilitation (Pawlowski, Holme, Hafner, 1993). The nature of a simplified and stress reduced environment with an emphasis on living skills, natural and logical consequences and opportunities for reality testing suggest significant potential in accelerating the recovery process.

Of significant benefit to this client group is the ability to engage adolescents who may be reluctant to become involved treatment because of aversive experiences with mental health services, stigma, and/or a lack of insight into their condition. Anecdotal clinical experience suggests that many adolescents with psychosis are attracted to wilderness and adventure therapy programs because of their 'recreational' appearance. Once clients are engaged, it then becomes possible to address many of their core mental health issues as they manifest through the wilderness or adventure experience.

Seriously Emotionally Disturbed (S.E.D.)

The term ***SED*** was often used to define target client groups for clinic based adventure therapy programs. This includes clinical depression, clients with suicidal ideation, anxiety, minor behavioural problems, victims of abuse, severe family dysfunction, identity and self-esteem problems. It was considered that these client types responded well to multi-modal adventure therapy which included other therapies such as individual and group psychotherapy, and family therapy. While SED clients were the specified target group for many programs investigated, wilderness therapy and therapeutic wilderness camping programs would also work with more homogenous client groups such as oppositional-defiant and conduct disorders.

Physical & Sexual Abuse

While many programs worked with clients who had histories of physical or sexual abuse, programs with this as a specified target client group included Colorado Outward Bound School Survivors Of Violence program (Webb, 1993) and Santa Fe Mountain Centre. These client specific programs typically worked alongside conventional out-patient treatment centres, and usually worked with clients in the latter stages of treatment. Usually wilderness-adventure therapy was seen as adjunctive to individual or group counselling aimed at addressing abuse issues. Development of trust, the support of group members and same or mixed sex adventure therapists were important considerations in program planning. The Woodswomen Sexual Violence Survivors Outdoor Program (1996) has produced a pamphlet of guidelines for those working with this client group. The re-experiencing of fear where clients could learn active self-control, self-efficacy and empowerment *in vivo* were major treatment objectives and seen to be pivotal therapeutic experiences in the overall treatment process. See Webb (1993) for a detailed discussion of therapeutic issues. Correcting or improving body self-concept were also seen as important therapeutic objectives.

While programs for court sentenced youth often had clients who were perpetrators of abuse, programs specifically for the treatment of perpetrators were uncommon. Project Adventure's LEGACY (Learning Empathy, Gaining Acceptance, Changing Yourself) program being the only one investigated. Here, a male group of adolescent and pre-adolescent offenders undertook a long-term, residential, predominantly adventure therapy program. The emphasis was on developing empathy through group adventure therapy exercises including ropes courses and group initiative games. It was found that the long time period was necessary to re-socialise clients, while those with sociopathic traits tended to respond less favourably. The program had only been running for 11 months and so no formal results from evaluation measures are available. However, anecdotal evidence is positive especially where family support exists. A brief discussion of another program - Treetop Adventure - is given by Kjol and Weber (1993).

Drug & Alcohol Abuse

Wilderness and adventure therapy programs for adolescents with substance dependence and

abuse as primary presentations appeared to be not very common. This is in contrast to many substance abuse specific programs for adults (eg. Eagleville Hospital). However, many adolescent programs had clients with drug and alcohol abuse secondary to mental health problems. This is consistent with general clinical trends in adolescence. That is, substance abuse and dependence commonly accompanies disturbance in mental health and/or external stressors (such as sexual and physical abuse, family problems, unemployment, etc.). Clinically, substance abuse or dependence in adolescence is typically secondary to one or more of these issues. For this reason it makes clinical sense that any treatment be addressed primarily to the cause of the substance use, and that any treatment of substance abuse or dependence be done in context of broader treatment or intervention which addresses the above issues.

Generally, those programs whose clients had substance use issues ensured that treatment was aimed at addressing causative factors such as mental health problems. Wilderness programs were not seen as appropriate settings for detoxification. Wilderness and adventure therapy as a treatment for substance abuse per se was seen as only useful in post-detoxification rehabilitation and relapse prevention.

Suicide prevention

Many clients of programs had histories of attempted suicide and/or were at significant risk of suicide. Because of mental health problems such as depression and self-harming behaviours, or poor social connectedness, poor coping strategies, a low tolerance to stress, and so on. Because these clients represent a high risk group, the place of wilderness and adventure therapy in suicide prevention is an important consideration.

While few programs talked of this as a major aim, research has generally found a consistently positive impact on locus-of-control which is considered a central factor in learned helplessness and suicidal cognition (see Abramson, Seligman, & Teasdale, 1978). Additionally, certain unique features of this type of therapy have significant prophylactic value. Factors such as the development of resilience to stressful events, flexibility of coping responses, help-seeking, and social connectedness reduce suicide risk (Mason 1990). Specifically, wilderness and adventure therapy is likely to be especially effective in the prevention of suicide because of the following features: development of trusting and supportive relationships, the value of seeking assistance to solve problems, emphasis on successful adaptation and coping, as well as the development of a broad range of problem solving skills.

Dealing with failure, perseverance with problems and enlisting support from others to solve problems are generic themes which run through most elements of wilderness and adventure therapy. The direct analogy between resolving such issues and building protection against suicide is obvious.

Holism versus Reductionism

Paradigms that are central to wilderness and adventure therapy are ***holism*** on one hand, and ***reductionism*** on the other. Balanced co-existence of these two seemingly contradictory paradigms is an essential issue in best practice.

The paradigm of holism extends beyond the individual to incorporate a systems and broader systems framework such as the influence of family, community and culture. None-the-less, at

the individual level, a unique feature of wilderness and adventure therapy is its ***multi-sensorial learning modality***. The intensity of environmental and physical demands engages all sensory systems in a learning and change process. This is particularly important for clients who may be less able to utilise verbally based therapeutic approaches, as was frequently mentioned by practitioners.

In addition to this is the ***multi-functional*** nature of activities. That is, wilderness and adventure activities simultaneously develop a diverse range of skills. This includes personal organisation and living skills such as cooking and hygiene, physical fitness and self-care, judgment about risk-taking, regulation of affect such as anxiety and anger, inter-personal skills including communication of concepts and ideas, expression of emotion, conflict negotiation, empathy and insight into social processes, and cognitive development such as thinking styles and logical reasoning. Both the scope for clinical assessment of a client's bio-psycho-social capacities as well as intervention in all of these areas is considerably more than most conventional therapeutic approaches. It is the broad spectrum of client functions involved that makes wilderness and adventure therapy especially holistic.

Psychological research on information processing and memory strongly suggests that such integration of experience for the client is more deeply anchored because of this broad base. It is the multi-sensorial and multi-functional nature of therapy that may well account for the pervasive and accelerated rate of change reported by practitioners.

For this reason, practitioners need to be able to think at a holistic level about client needs and intervention options. In doing their work, therapists need to have firm theoretical foundations in body systems, psychological processes such as the relationship between cognition and emotion, sensory processing, as well as systemic principles of small groups, family issues and broader systems such as community and social institutions. Indeed, the capacity to analyse complex individual and group phenomena was seen to be an essential skill in the therapist (Colin Goldthorpe, private conversation).

On the other hand, in order to guide and focus a therapeutic approach, practitioners need also to be able to take a reductionistic perspective when considering treatment needs and priorities. That is, to be able to identify what problem or disorder the client is presenting for treatment and how this will manifest in an adventure activity and wilderness setting, what the nature of this disorder's etiology for this particular person is (assessment and diagnostic formulation), and what steps the client needs to take to move towards greater mental health (treatment planning). Davis-Berman & Berman (1993) and Crisp (1996) give further discussion on this point.

Relationship of the Field to Different Disciplines

While the UK and New Zealand are similar to Australia in professional domains, this is less so in most states of the USA. In the USA, different professions are bound to specialised roles to differing degrees, presumably in part as a result of market place competition and economic factors. For instance, psychiatrists are largely limited to hospital based roles, diagnostic assessments and the prescription and monitoring of medication. On the other hand, social workers frequently take on clinical and therapeutic roles. Generally disciplines such as psychology, social work, and licenced generic counsellors take up the bulk of therapeutic roles.

However, the field of occupational therapy largely concerns itself with clinically based medical and rehabilitative settings.
Unique to the USA is the profession of 'Recreational Therapy' which is typically a four year college degree trained therapist who usually works in clinical settings and undertakes roles very similar to that of a psychiatric occupational therapist in Australia. Group activity based therapies are the typical realm of this profession. The less expensive (which usually means lesser trained) professions are preferentially sought for direct care roles in a competitive market place dominated by profit orientated private health insurance companies.

Drawing on a number of different treatment approaches, wilderness and adventure therapy necessarily has strong theoretical and practise links to several different disciplines. In the USA most published research and theory development is commonly psychological in nature making this discipline central in academic development of the field. However, social work is well represented in this arena also. With regard to practise issues, many techniques are being developed by a range of therapeutic and counselling professions: psychology, social work and family therapy.

By necessity, outdoor education is a common base from which the field is heavily influenced. Therefore it is not surprising that the largest professional network both in the USA and internationally is the Association for Experiential Education (based in Boulder, Colorado).

While one of the great strengths of this field is the many influences which shape practice, theory and research, its relationship to various professions is dynamic. Many people interviewed remarked that the professional broadness of its base leaves it struggling to find unity as a profession.

In contrast to the USA, professions within Australia tend to be more specialised. Those professions which concern themselves with group (or family) therapy such as occupational therapy, psychology and social work hold the strongest links with the practise of wilderness and adventure therapy here. Particularly, the paradigm of the therapeutic use of activity of occupational therapy are very similar to those developing in the field of Recreational Therapy and wilderness and adventure therapy internationally. Also, clinical research activities and academic theory development of psychologists are again similar, while family adventure therapy is very closely aligned with principles of social work and family therapy.

While these links between disciplines are conceptual, in practice mental health professionals in Australia frequently specialise in areas which develop skills beyond those which are discipline specific. This is largely because of the relative ease to undertake specialised post-qualification study (eg. family therapy, psychotherapy, and group therapy training, research degrees, etc.)

However, in Australia at this time, because of the lack of development of the field here as therapy, outdoor educators with a range of backgrounds such as recreation, teaching or youth work but with no formal training in therapy or mental health are increasingly attempting to use wilderness and adventure activities to treat mental health problems (eg. Handley, 1996). This should be of concern for the mental health field and the general public. This appears to have occurred because of the lack of awareness and knowledge by both consumers and outdoor educators about many of the ethical and clinical issues as discussed in this paper.

Client Rights & Ethical Issues

It is both surprising and concerning that client rights and ethical issues don't take a greater place in the literature and discussion within the field. Issues around the development of new techniques, program models and industrial issues seemed to dominate much of the discussion about the future of the profession. Exceptions to this are the emphasis on therapist qualifications given by Davis-Berman and Berman (1994), and a nominal code of ethical practice produced by the Therapeutic Adventure Professionals Group of the A.E.E. (Gass, 1993). Despite many publications on theoretical and technical topics, papers on ethical issues pertinent to wilderness and adventure therapy are few and tend to be superficial in their coverage.

However, Hunt (1986) provides a good discussion of ethical issues related to outdoor education generally including risk-benefit analysis, informed consent (including known outcomes and side effects), deception, secrecy, captive populations, sexual issues, environmental concerns, and individual versus group benefit. This is a good starting point for extrapolation to therapy relevant issues. However, ethical issues specific to clinical and therapeutic applications need to be explored and discussed in detail.

Unique and important factors which require consideration include the following. Significant physical dependence clients have on the therapist, forming and maintaining appropriate and therapeutic boundaries where these are frequently challenged by the nature of activities and multiple roles the therapist assumes, the unique and multi-faceted role of the therapist in a living situation with his/her client (including managing 'transference' in the client and 'counter-transference' in the therapist), the use of activities which have the potential to cause injury, death or psychological trauma as a form of therapy, involuntary treatment, using methods whose psychological processes are thought to be powerful but are not fully understood, and peer group coercion to modify behaviour are just a number of complex ethical issues.

Despite the "full-value contract" for clients to negotiate with the peer group as part of the Adventure Based Counselling approach (Schoel, Prouty & Radcliffe, 1988) there are no comprehensive guidelines for therapists on the rights of clients that sufficiently address issues relating to the needs of clients in isolated wilderness programs or adventure therapy programs. While such rights would naturally vary to some degree depending on country, state and mandate of the wilderness or adventure therapy service, every program should have this written and available to clients. Some programs such as Three Springs did endeavour to do this.

Consumer Perspectives

The innovative approaches of wilderness and adventure therapy hold significant novelty for consumers as a form of therapy. With this comes a need to educate consumers about what is therapeutic about these methods and how these methods are different from typical adventure experiences through outdoor education programs. There is a risk that consumers and mental health administrators will attempt to use standard outdoor education as an alternative treatment for mental health problems, and non-therapist outdoor education practitioners may be tempted to encourage this notion. This seems potentially deleterious for consumers and for public support and confidence in the field of both outdoor education and wilderness and adventure therapy.

On the other hand, consumers can see this form of treatment as attractive and non-stigmatising and so may well engage in treatment where they might otherwise not. The author's own anecdotal experience supports this. Many programs emphasised a high level of client involvement in activity selection, expedition planning, and choice of venue. This seemed a valuable opportunity for client empowerment where attention was given to developing reality orientation through planning. Much supervision and guidance was given to client decision making with an emphasis on learning about the process and building better reality-testing skills. This is in contrast to simply giving freedom to clients to be self-directed without any support or guidance.

Gender and Power Issues

Many practitioners reported concerns that the field was historically and traditionally dominated by men, and that there was a perception by the general population that wilderness experiences were the domain of males. Additionally, many traditional roles for men were not necessarily positive by current community standards and tended to emphasise control of the environment (in contrast to self-control) and an external, 'acting-out' orientation. On-the-other-hand, traditional roles for females in wilderness and adventure activities were less prominent and tended to be less positive. Cole, Erdman & Rothblum (1995) is a key reference which explores many of these issues as they relate to women.

Many concerns are raised about the differential appeal to both sexes of this form of therapy. It was a consistent finding that females were just as interested in wilderness and adventure approaches as males in mixed sex programs. Indeed, many practitioners commented that the impact for females in these interventions appeared to be greater for females than males. This may be due to the opportunity to break from traditional roles for females.

As much of therapy involves use of the body, physical touch, peer encouragement, overnight living situations and so on, there exist unique opportunities for problems related to gender issues. Power differences that may exist in traditional roles and cultures require that peer influences be carefully monitored so as to not be exploitative nor oppressive. As many clients may have come from oppressive or exploitative relationships (for both male and female clients), there exists a high risk that inter-personal patterns may develop between clients, or between client and therapist that further reinforce their past experience. Mitten (1995) provides a good discussion on many of these issues. For therapists, it seems vital that they have a good clinical understanding of 'transference' and 'counter-transference' issues and are clear about, and skilled in maintaining appropriate and therapeutic boundaries. Mixed sex therapist teams seem important for ensuring therapist self-monitoring of client-therapist boundaries.

Aside from therapist awareness and monitoring of these inter-personal dynamics, it is also imperative that clients have access to therapist role models of both sexes. It is especially useful for therapists to model appropriate non-oppressive and non-exploitative relationships with each other and with clients where appropriate resolution of any power issues and conflict were able to be observed by clients. Therapists should be able to confidently and effectively break from traditional roles in the division of tasks, styles of inter-personal relating, and so on.

Community Orientation & Social Values

Some programs had explicitly stated community aims, and Santa Fe Mountain Centre saw their primary aim as to effect community development with local and ethnic communities. They saw many aspects of wilderness therapy as being particularly useful in enhancing and developing community identity, cohesion and empowerment. Many practitioners saw therapist education about ethnic, cultural and community issues as vital in working with diverse groups. Sensitivity to ethnic and community values were seen by many programs as critical to good practise. Indeed, many programs saw that aspects of their program design, procedures and methods were implicitly endorsing white, middle-class values which may have been in conflict with the values of minority groups.

Programs such as Santa Fe Mountain Centre actively sought to employ staff from local ethnic groups. However, this was difficult to achieve at times because appropriately qualified staff of suitable ethnic background were sometimes difficult to recruit. Access to tertiary education for minority groups is presumably a factor in this.

While some programs sought to incorporate religious practises into their approach, many programs were irreligious. Again, there seemed some benefits in doing this for some populations such as the clients of Anasazi Foundation. This program was based around the teachings of the Church of Latter Day Saints. Here there is a significant emphasis on the value of family relationships and family intactness as well as teachings from the bible. It seems arguable whether such a uniform approach for any, and all clients is appropriate.

Principles for Best Practice & Service Design

In addressing critical issues in best practice, Drs. Jennifer Davis-Berman and Dene Berman stress the need for the practise of professionalism at the level of existing mental health professions. This includes the disciplined application of therapeutic procedures based on established therapeutic theory.

On a practical level, they call for two key professional resources. Fully trained wilderness and adventure leaders with the technical and safety management skills; and wilderness and adventure therapists who are mental health professionals with experience in the clinical treatment of clients with diagnosable disorders. Qualified therapists should be involved in delivery of therapy themselves, or may directly supervise lesser trained counsellors in the field. They are clear about the need to increase the level of training and experience of the therapist, the more isolated the clients are from emergency psychiatric services. Further, comment was made on the need to 'cross-train' professionals in both outdoor education and therapy and develop regulatory mechanisms to ensure good practice. Finally, they argued the importance of high quality, empirical research in maintaining the highest standards of practice, and refinement of best practice generally throughout the field. See further detail in Davis-Berman & Berman (1994).

Specifically Dr Michael Gass described what he saw as essential elements in any Adventure Therapy intervention:

1 Join with the family (form a therapeutic alliance)
2 Understand the complexity of families
3 Understand the systemic elements of the family and integrate this into the adventure therapy activity
4 Physical risk management
5 Need to be able to use risk to induce change
6 De-briefing and processing skills, especially re-framing

Drawing from the authors above and discussion with many other practitioners, and after distilling aspects of the programs investigated, I conclude the following key elements to be significant in ensuring the highest standards of wilderness and adventure therapy in the treatment of mental health problems[5] (based on the definitions given in the introduction).

Key Elements in Wilderness and Adventure Therapy Best Practice

- **Systemic Framework**: any intervention or program takes account of systemic (family/significant others) and broader systems issues (class, culture, ethnicity) in such a way that these elements are involved as an integrated part of the intervention. When working with individuals, these issues inform approaches used.

- **Assessment Processes**: a thorough and individualised intake process occurs, including assessment & diagnostic formulation which assists the understanding of the mental health issue in context of medical, psychological, and social influences.

- **Treatment Planning**: a comprehensive and flexible bio-psycho-social treatment plan is used and is reviewed and modified regularly (eg. daily, weekly).

- **Flexibility**: therapeutic interventions are flexible and tailored to individual need. Individual needs of clients determine the therapeutic approach from the outset and monitoring of client progress informs subsequent interventions.

- **Integration**: all aspects of treatment, including multi-modal therapies and adjunctive therapies such as individual and family therapy are integrated in a reciprocating fashion. That is, assessment information and issues from each therapy type inform the other. Procedures and methods are developed to ensure continuity, such as group processing methods to link therapeutic issues, use of daily progress notes, therapeutic progress and assessment hand-over meetings.

[5] Many of the elements listed here would not apply to enrichment programs which are not aiming to address underlying causes of mental health problems or specific or individualised psychological or behavioural changes.

- **Monitoring of Client Outcomes**: client evaluation pre & post therapy and follow-up is routine to ensure that clients have benefited. This includes a third party's perspective (eg. family/parent).

- **Theoretical Paradigm**: a clear therapeutic rationale and theoretical paradigm about psychological and behavioural change is well articulated. Established therapeutic methods are delivered by qualified staff in keeping with contemporary clinical frameworks. This paradigm is familiar to all staff and forms the basis upon which treatment decisions are made.

- **Therapist Skills**: include the ability to analyse complex individual and group phenomena. Therapists are able to respond effectively to unexpected client needs in remote settings through a broad range of clinical skills & training beyond their expected role in wilderness or adventure therapy. Additionally, given the rapid growth of knowledge in the area, therapists regularly familiarise themselves with the latest developments in theory and methods.

- **Risk Management**: physical and psychological risk management plans and procedures are developed and reviewed regularly. Standards of program accreditation are adhered to (eg. AEE program accreditation scheme). Procedures for management of medical emergencies, critical and traumatic incidents, and psychiatric crises are developed and reviewed regularly. Precaution and planning and therapist's crisis intervention skills increase as the more inaccessible and physically challenging wilderness therapy interventions become.

- **Ethical Issues**: therapists and program administrators have a thorough and practical understanding of ethical issues unique to this type of therapy (this is a regular topic for staff professional development).

- **Research**: the organisation is involved with evaluative academic research. Research findings are relayed to therapy staff to enrich their understanding of theoretical and methodological issues. Practices are reviewed in light of internal and published research.

- **Training**: the organisation has an internal staff training program or offers open enrolment courses, and maintains a culture of learning and skill development.

While the adherence to all of the above elements pose a challenge, these principles should set a benchmark for best practice. Not-with-standing, these elements should be able to be incorporated into a wilderness or adventure therapy program to varying degrees. Indeed, many, if not most programs investigated did achieve this (Appendix B).

6 Recommendations

The Future of the Field in Australia?

Recent years has seen an increase in outdoor programs in Australia which aim to work with a client group defined as "youth-at-risk". These are typically outside mental health services and are funded and staffed by education departments, youth agencies and departments of correction. The approach of these programs has been to use outdoor education with "troubled youth" to enhance self-esteem or improve behaviour related to educational needs, criminal behaviour or drug and alcohol use. Target groups are seldom defined more specifically than "youth-at-risk"(of drug and alcohol abuse, unemployment, etc.) or clients of "juvenile detention centres" and trained mental health professionals are rarely employed or consult to these programs. Additionally, program outcome objectives are frequently general (not individualised) and relate simplistically to the underlying causes of mental health problems. For these reasons, these programs fall into the category of enrichment.

Most recently, mental health services are seeking to utilise outdoor adventure activities as adjunctive enrichment (Pawlowski, Holme and Hafner, 1993) and multi-modal therapy (Kingston & Dwyer, 1996; Crisp & Aunger, in press). While there appears to be a clear and growing interest in developing and extending wilderness and adventure therapy in mainstream clinical services, the scarcity of proven models in Australia means that administrators and clinicians are unsure about how to proceed.

Where attempts have been made to introduce wilderness and adventure programs into clinical services there has frequently been a total reliance on outdoor educators with no training in mental health to advise on how this is best done. Similarly, clinicians and mental health administrators commonly have no experience with, or understanding of programmatic or clinical issues pertinent to wilderness and adventure therapy. Anecdotally, this has lead to adverse outcomes and preventable psychiatric emergencies in some instances. Such a trend is likely to lead to understandable reluctance by mental health administrators to incorporate wilderness and adventure therapy into mainstream mental health services.

It is my belief that this issue alone poses the greatest threat to the acceptance and development of the field here in Australia. It is imperative that the mental health field, politicians and the general public can see the value, validity and efficacy of wilderness and adventure therapy in order to gain the necessary financial and public support. Any adverse outcomes or incidents could quickly see this form of intervention lose its professional and administrative support and have its value and role as a treatment modality questioned. General acceptance of the notion of using high risk activities which induce stress to treat particularly vulnerable people is likely to remain conditional upon freedom from adverse incidents over a sustained period.

There is currently a relatively low demand from mental health services (however this is increasing). Economic and philosophic conditions are favourable to wilderness and adventure therapy being pervasively integrated into existing mental health services as the demand increases. There is substantial need to attract and engage adolescents and cost efficiently treat those with more severe mental health problems who are unsuitable for, or have not responded to conventional therapies. This is especially so for those who pose a high risk for suicide or the development of serious mental health problems in adulthood.

Australia is exceptionally well placed to establish the highest possible quality wilderness and adventure therapy field. A number of key factors make this so. First, Australia has an extensive and highly developed outdoor education industry with good infrastructure and professional

support. Every State has an active outdoor education association which is represented nationally by the Australian Outdoor Education Council. Additionally, a standards and accreditation mechanism is being developed through the Outdoor Recreation Council of Australia (O.R.C.A.). These mechanisms are well placed to ensure high standards of technical and physical safety in activity practices. Second, Australia has many suitable venues for conducting wilderness therapy because of its low population density and relatively abundant natural environments.

Finally, tertiary education is easily accessed in Australia, so obtaining qualifications as a mental health professional as well as gaining cross training in wilderness and adventure activities is realistic and achievable. Indeed, many people are currently striving to do just this now. This is in contrast to the UK and USA where the costs of training in either field can be quite prohibitive. Indeed, this fact alone probably accounts for most of the resistance to acceptance of mental health training as a basic qualification as a wilderness or adventure therapist. Further, minimum qualification to practise as a mental health professional requires a greater number of years in the USA compared to Australia. Currently college training in the USA is 9 years (PhD) for psychologists and 6 years (Masters degree) for Social Work compared to 6 and 4-5 respectively in Australia. Additionally, Occupational Therapy is only 4 years of university training and appears an excellent base qualification (in addition to wilderness and adventure training) to practise as a wilderness or adventure therapist.

Rationale for a Professional Practitioner Model Versus Program Development

With large populations in both the UK and USA, each country could support stand alone wilderness and adventure therapy programs. In contrast to mental health systems in Australia (Department of Health & Community Services, 1994, 1996) comprehensive and uniform public mental health systems do not exist. These private mental health services appeared the only ones capable of employing comprehensive and innovative treatments. These agencies are able to develop stand alone wilderness or adventure therapy based programs to fill a service gap and respond to local demand for mental health services. With this open market consumer base, larger scale programs are more viable.

In the USA there was an obvious trend amongst developing programs to broaden their services to include mainstream out-patient services and conventional adjunctive therapy such a family therapy. However, the likely trend in Australia would follow an opposite direction to this. That is, the existing comprehensive and universal conventional mental health services form an ideal base from which to develop integrated wilderness and adventure therapy programs. The only scope for stand alone wilderness or adventure therapy programs seem to be in the private sector which would likely face heavy competition with public sector services. The most likely option therefore would be to establish wilderness and adventure therapy within existing public sector services.

Because of the recent trend to regionalise mental health services around Australia where small, fully complimented services exist within one community based agency (Department of Health & Community Services, 1994, 1996), any wilderness or adventure therapy program is likely to be small scale. For this reason, large pools of practitioners with a range of skills and skill levels would seem unlikely. Therefore, practitioners need to hold a broad range of skills and have a particular capacity to work along-side non-wilderness or adventure therapists, and within a conventional mental health service.

For these reasons it seems that a practitioner model of service approach is preferable to development of stand-alone programs.

There is a typical path to practising as a specialised therapist in a mental health service in Australia. Usually a professional gains basic qualifications to practise independently giving them the requisite skills and experience to undertake a generalist role in a number of mainstream mental health settings. In order to develop expertise and be considered qualified in a specialised form of therapy extra study and training is expected in addition to one's base professional qualification. Examples include psychotherapist, family therapist, marriage and relationship therapist, and most types of group therapist. This model of specialised therapist training ensures a broad range of clinical skill is brought to more narrow specialist expertise in any particular form of therapy.

This career path has developed in Australia because most mental health professionals train and gain initial professional clinical experience in the public sector. Many public sector services are teaching hospitals (and clinics) making it easy for professionals to access training at minimal cost. Frequently, public sector employers strongly support their staff to develop specialised therapeutic skills in areas where there is a perceived service need. In this situation, where there is a perceived need for wilderness and adventure therapy services in the public sector, it is likely that support for professionals to train in this area would follow. Indeed, this has been the authors experience in recent years. So it would follow that a clear rationale for the need for wilderness and adventure therapy in mainstream mental health services is a necessary first step.

In terms of maintenance of the highest professional standards in this scenario, to have 'cross-trained' therapists would ensure the highest therapeutic standards and regard for ethical issues (discussed above). The importance of professionals being able to hold ***independent clinical opinion*** about their practise based on the standards of practise held by the field of wilderness and adventure therapy would be critical in this area. Administrators may hold a conflict of interest between administrative, policy and economic imperatives on the one hand, and the best interests of the client on the other. This would be difficult where the outdoor technical staff were externally sub-contracted and had no understanding of clinical-ethical issues and therapy staff had no understanding of wilderness and adventure physical or psychological safety considerations. Indeed, the author has heard anecdotally of many incidents where this very problem has occurred because of this reason.

The Need for Professional Accreditation & Steps Towards a Profession in Australia

The over-riding issue which underpins any argument about professionalism is the ethical question of whether there is a need to protect the public from harm. Hands (1997) raises relevant questions in a discussion of registration of psychologists in NSW. It is clear that where a clear need to protect the public can be demonstrated, a need to be able to regulate people who practise in a particular field also exists. First, the dangers must be identified. Physical dangers in the use of wilderness and adventure activities per se are relatively obvious. Other dangers unique to the application of wilderness and adventure activities as therapy are seldom discussed in the literature and are less obvious (exceptions include Berman, 1996; Davis-Berman and Berman, 1994).

Exposing clients with mental health problems to the normal physical dangers in these activities raises important questions. Many clients who most benefit from this form of therapy also pose a high risk to themselves and others compared with non-therapeutic populations. For example, many young people with mental health problems have histories of, or potential for extreme and unpredictable risk-taking. This may be in the form of self-harm or para-suicidal behaviour such as self-mutilation, impulsive and acting-out behaviour, substance abuse, running away, refusal to eat, refusal to use safety equipment including adequate clothing. Additionally, suicide attempt through either passive exposure to life threatening situations (eg. exposure to extreme cold, entering water when unsafe, refusal to use safety equipment), or active suicidal attempts such as jumping, wrist slashing, drug overdose.

The results of an inability to assess the risk of these behaviours prior to, or during an activity are obvious and profoundly harmful given the potential for disaster. Risk to others can take the form of bullying, physical assault, sexual assault, exposing others to physical risk through rule breaking or not following directions, damaging safety equipment, encouraging others to abuse substances, and so on.

Also, the capacity to cope with stress effectively is frequently severely diminished amongst this population. In the case of a traumatic incident such as serious injury, becoming lost in the wilderness or subjected to environmental extremes, some clients may experience added trauma to their already fragile mental state. Where perceived risk and stress are used therapeutically to induce disequilibrium in the client (see Nadler & Luckner, 1992) tolerance levels of individual clients may be minimal and may vary depending on the individual and situation. The ability to assess this and tailor interventions to individual need is also critical. This requires both a high level of psychological knowledge and intervention skills as well as a thorough understanding of the unique demands of the wilderness or adventure activity.

The recent death of Aaron Bacon (Berman, in press) in the USA highlights the need for practitioners to be able to assess client motivation and differentiate real ***illness behaviour*** from behaviour thought to be an aspect of the client's psychological presentation. Such examples highlight the importance of therapists holding a broad base of experience and skill in general clinical practice.

In practical terms, it is relatively easy to ensure standards in general clinical practice by using existing mechanisms that regulate the practise of mental health professions. These include, accreditation of university based training programs by professional associations, legislative registration of professions such as psychology, psychiatry and nursing and through membership of professional associations such as Psychology, Occupational Therapy, Social Work and Psychiatry. Ensuring adequate standards in specialised wilderness and adventure therapy requires covering two distinct areas. First, the need for adequate expertise in wilderness and adventure activities. As mentioned above, through ORCA Australia is well on the way to having a nationally recognised system for the regulation of standards of minimum competence. This should be the beginning standard for any wilderness or adventure therapy.

Further, there is a need to ensure minimum standards of ***therapeutic*** practice like other specialised therapies. In fields such as psychotherapy and family therapy, multi-disciplinary professional associations have been established to set standards for practice, oversee training

programs and accredit individual therapists to practise. The Victorian Association of Psychotherapists, Victorian Child Psychotherapists Association and the Victorian Association of Family Therapists are good examples of this. While these bodies have no legal jurisdiction, membership with these associations is commonly accepted as signifying an acceptable level of training and supervised experience to practise. These associations also act to protect the public by accepting complaints from clients and holding therapists to account, as well as educating and advising mental health administrators and the public on best practice.

This model seems the most effective one to implement and the simplest way to ensure a minimum level of training and experience both in general clinical skills and specialised wilderness and adventure therapy skills. It could be envisaged then that a person calling themselves a wilderness or adventure ***therapist*** would have **a)** general clinical skills and experience (through discipline specific registration and/or membership), **b)** appropriate technical skills (through industry standard training and conformity with ORCA standards), and **c)** specialised therapeutic skills (through membership with a multi-disciplinary association of wilderness/adventure therapists).

If a professional association of wilderness/adventure therapists were established, it should set minimum standards for membership in line with general qualifications in mental health (or equivalent[6]), ensure that members hold appropriate qualifications in technical skills as per ORCA guidelines, and that they only practise within the area of their expertise (including technical skills and experience). Strong links with Outdoor Education associations would be necessary to ensure technical standards are kept current, and avoid unnecessary duplication of functions. Finally, the association should ensure that therapy is conducted with due regard to the ethical and clinical issues discussed above.

A further role of such an association should be to oversee (through an accreditation process), and assist in the development of training programs in the specialised skills of wilderness and adventure therapy.

[6] Whether non-mental health professionals should be accepted is a matter for on-going debate. Currently, there is much debate in the USA around minimum standards and therapeutic competencies in the field. Exact specifications are unclear at this time, and some authors argue that people not trained in a mental health profession should be able to practise. Many practitioners have also argued convincingly against this. It seems that economic considerations in the USA are highly influential in those arguments for non-professionalisation. While there may be argument for accrediting those who can demonstrate equivalent competencies to practise, the aim of this document is to report on best practice. It is clear for the reasons already covered why this is a less desirable option if we are to ensure best practice in Australia.

Practitioner Training Needs & Avenues

Following the professional model proposed above, training would necessarily involve two dimensions. First, therapists need to have appropriate skills in technical wilderness and adventure activities and associated safety, risk management and first-aid skills. As stated this is best done to industry standards according to ORCA specifications. Therapists need to have a working knowledge of what are appropriate levels of skill training for their particular setting. Local sources of information such as state outdoor education associations should be sought for appropriate training resources. Training in these areas could be either undertaken during undergraduate training in any mental health profession or subsequent to qualification. To be minimally qualified in these activities to instruct novices (which is the most common level of activity undertaken) would require commitment to learning these skills, but is not prohibitive. Wilderness and adventure therapists need not have an extensive range of skills in technical wilderness or adventure activities. Therapists should be able to undertake substantial therapeutic work using just a few wilderness or adventure modalities. What they do need is skills in some areas so they can understand generic processes. If activities are to be utilised beyond their expertise then they could enlist another person with an appropriate level of expertise in outdoor education. However, it is likely that therapists will become adept at using a select number of activities that suit their particular client group and therapeutic objectives. This study suggests that it is likely that therapeutic processes and techniques transcend activity type. That is, it is more important ***how*** therapists use an activity than ***which*** activity is used. It is in the 'how' that the more complex therapeutic skills lie.

Therefore, of great importance is that therapists become competent in the ***therapeutic*** skills of wilderness or adventure therapy. Like psychotherapy and family therapy, this could be done through a combination of theoretical courses of study as well as supervised clinical practice. Experience has shown this to be a highly effective method for the training of therapists in these specialised approaches. Having experience in undertaking research in the area would also enable practitioners to make use of, and critically evaluate published research as well as conduct clinical research and quality assurance activities.

Like other specialised therapy training, this could be undertaken on a part-time basis in combination with on-going clinical work in the professional's own work place, or through structured clinical internships. The latter has been successfully offered over a 6 month period for the last two years in the author's service at the Austin & Repatriation Medical Centre. Ideally, paid training positions could be established where qualified professionals could train for more adequate periods of one to two years. Skills could be further developed through a supervised probationary period such as is the case with specialist training in Clinical Psychology.

The ideal curriculum and nature of supervised internship should be advised by a professional association which should set and monitor standards. Again, the author's service has successfully run short courses for mental health professionals covering theoretical bases of therapeutic practise, and critical areas such as ethical issues, psychological risk management, management of psychiatric crises, management of traumatic incidents, and so on. As mental health agencies are able to draw on significant expertise in a range of clinical areas, this valuable resource should be utilised in teaching as much as possible.

As has been the case with other specialised therapy training programs, once a program of

training has become well developed, universities and other tertiary educational institutions may establish formal qualifications around such a curriculum. Examples of this are the Post Graduate Diploma in Family Therapy and Master of Child Psychoanalytic Psychotherapy which require an undergraduate qualification in a mental health profession. Before this is to happen for wilderness and adventure therapy, it is likely that a substantial demand for training would need to be demonstrated, and a generally accepted knowledge base and curriculum be identified.

Public Sector Service Development in Australia

Any public sector development requires commitment from the professional sphere, government administrative bodies including mental health administrators and ultimately the broader political arena.

As mentioned above, the public sector is well suited for the establishment of integrated wilderness and adventure therapy programs on a small scale. This is in part due to the community based, regionalisation of mental health services. Here, regional managers would need to be committed to the specific needs of such programs which would require specialised resources such as equipment (vehicles, outdoor gear, ropes course equipment, etc.) and human resources such as specialised wilderness and adventure therapists and funds for training and updating staff in wilderness and adventure skills. However, these costs would be relatively minor for small scale programs which were integrated into existing mental health services.

There is also potential for larger scale programs which might service larger populations. There has been some development of a statewide model like this in South Australia. Wilderness or adventure therapy based programs could be established which might complement regional mental health services. It is the authors' view that there would be some inherent disadvantages to this approach such as greater difficulty integrating other therapeutic interventions, not being able to offer a graduated range of treatment services and the dislocation for, and requirement for community re-integration of the client with longer term residential interventions. However, it seems that for severely behaviourally disordered adolescents this approach may hold some advantages by removing the client from systemic influences (peers and family) which may reinforce and maintain problem behaviour. Therefore, large scale, behaviour disorder specific programs may be effective if they are well linked with regionalised mental health services. For such a program to be established, substantial resources would be required. However, many of the programs investigated were viable on such a scale.

Private Sector Service Development in Australia

Any private sector development would require the following. First, a relatively high demand for wilderness and adventure therapy from the consumer. Second, commitment from private health insurers who would need to see the cost effectiveness of such an approach as compared with conventional treatments. Third, private mental health service providers would also need to see financial and other advantages of offering such a service. Presumably, successful trends in the public sector eventually spill over to the private sector as long as there is private health insurer support.

The fact that almost all programs investigated in the USA were dependent on private insurers and

managed care systems to refer and pay for services demonstrates their viability. Here, economic factors seemed significant. While conventional in-patient treatment in the USA tended to be short-term, many residential program were significantly longer. However, the fee difference was also substantial with a typical hospital in-patient stay costing around US$1,000 per day, wilderness therapy and therapeutic wilderness camping programs cost around US$150 per day. Such a wide cost variation is not likely in Australia (as in-patient costs are typically less than half of that in the USA).

Therefore, large scale, stand-alone private sector programs are unlikely to be so popular here. None-the-less, small scale, integrated programs may be more viable. Presumably staff might be employed on a sessional basis where the onus of standards of practise would rest with the therapist not the organisation. This is another argument for the need for professional accreditation. Obstacles to this may be a perceived lack of legitimacy in the eyes of consumers or insurers, and/or a fear for private service providers of attracting litigation if there was physical injury as a result of accident during an activity. Also, an insurance rebate structure would need to be determined.

Needs of Mental Health Administrators

Besides the need to understand the significant range of potential benefits wilderness and adventure therapy can have in engaging and treating adolescents discussed above, the following are areas which should be considered by mental health administrators.

Of major importance is what type of service is to be established, what complimentary services exist or need to be put in place and what relationship will any wilderness or adventure therapy program have to other aspects of the service, and external agencies. This is especially important for support services such as individual or family therapy, case management and follow-up processes. As discussed above, issues of how wilderness and adventure therapy is to be integrated with other therapies need careful planning and support. Issues of access, referral processes, suitability for inclusion, etc. need to be determined to ensure appropriate wilderness and adventure therapy services are employed for the right types of clients in the right time frame in relation to all other case management arrangements. Therefore, a coherent set of therapeutic aims and objectives should be generated and discussed with the entire service that is consistent with other service components. For further discussion on this process in private hospital settings the reader should refer to Roland (1993) and Gilliam (1993).

An initial consideration is that the infrastructure required to provide such services can span from the relatively minor up to a major undertaking. However, service aims and client need should guide what level of commitment is made. It seems clear that a larger scale wilderness therapy program may not achieve much more than a smaller scale adventure therapy one, depending on a number of factors. For example, when servicing families on an out-patient basis an integrated, multi-modal program may be sufficiently effective. On the other hand, while a small scale adventure therapy program may be inadequate for conduct and behaviourally disordered adolescents, a longer term (eg. 2-15 months plus) wilderness therapy or residential therapeutic camping program is likely to be required. Obviously, the infrastructure needs of these two ends of the continuum will be significantly different. There are real potential dangers in being under resourced in attempting to establish a viable service because many resource needs are invisible.

Further detailed discussion is beyond the scope of this report, but equipment resources will need special consideration in both initial acquisition as well as maintenance and periodic replacement (for detail see Berman & Davis-Berman, 1991) . Further, adequate capacity for staff to update qualifications in first-aid, risk management and technical skills, new staff training needs are likely over a period of time, transport, and equipment hire cost need to be taken into account. Time taken to implement all of these requirements translates to 'down time' in client service as well.

Less tangible considerations also include the very high potential for staff burn-out and the need to build in, and allow for protective mechanisms against this. This would include balancing the number of field days to non-field days, regular time off after long expeditions, and so on. Again, this raises the potential for high staff turnover which creates the need to retain staff by ensuring attractive career paths, and being prepared to invest in training new staff in appropriate skills should that be necessary. This was an issue that many programs raised which potentially threatened the overall quality of the therapeutic service.

Administrators need to be aware of and familiar with quality and safety assurance mechanisms. For instance, ensuring an appropriate safety audit is undertaken and reviewed and safety committees established. Following the lead of the Association for Experiential Education (AEE) in the USA, it is likely that program accreditation will be seen in the industry as a standard for wilderness and adventure programs of all types.

Not-with-standing all of the above, of foremost consideration and priority are partitioner competencies & ethical issues as discussed above. This form of therapy holds quite unique ethical issues and holds the potential to do harm to clients both physically and psychologically. It behoves employers and administrators to be fully informed of these issues in staff selection, review and supervision. Additionally, it is in the administrators and agencies interest to be informed of, and support any future professional association in maintaining the highest standards of wilderness and adventure therapy practice in those claiming to undertake wilderness or adventure therapy with clients with mental health problems.

Research issues

A detailed discussion on research issues is beyond the scope of this paper and the reader is referred to Gass (1993, Section 5).

However, Gillis (1995) highlighted some important research areas. The literature to date has shown significant effects in improved self-concept, behaviour, attitudes and school grades. While increases in clinical functioning and greater internalization in locus of control showed important clinical value, no comparisons have been made with other treatment interventions. He also notes that as there is no one clearly defined and researched method of therapy in adventure or wilderness therapy, leaving the question of which intervention (therapeutic approach or activity) is most efficacious with which clients still unanswered. Along with many other authors, he also calls for greater specificity and accuracy in conducting research and reporting on method. He suggests that detailed case study methods may be just as informative as pre and post testing in advancing understanding, as well as more regression based statistical analyses which look to answer who does well or better following different types of wilderness or adventure therapy. Finally, to follow mainstream psychotherapy research and look at 'significant change events' in

wilderness or adventure therapy may be particularly useful in informing partitioners about most effective intervention methods.

There are other areas of particular significance for Australia. While much research on locus of control suggests a significant potential of wilderness and adventure therapy to affect a reduction in risk of suicide in high risk adolescents, the author knows of no research which has attempted to investigate the impact of wilderness or adventure therapy on suicide prevention per se. This has obvious and significant implications for Australia at this time. Further, the ability to develop resilience in high risk groups through wilderness and adventure therapy appears high given the research already done and anecdotal clinical reports. It should be of major priority to investigate the potential benefits with high risk groups for the development of resilience and suicide prevention.

Obstacles to furthering knowledge through research include funding issues, therapeutic skills and commitment from research facilities, universities and mental health services.

First, being a novel and unconventional treatment modality, clinical and mental health researchers do not accord research in this area much priority. In the mental health field, typically medical and psychiatric interventions are given priority for funding, such as drug trials. Where non-medical intervention research is afforded funding, this tends to be mainstream therapeutic approaches such as behavioural and other interventions. So the opportunities for wilderness and adventure therapy research attracting funding is poor.

The other avenue for research is through university post-graduate student research. Disciplines most suited would be Psychology, Occupational Therapy and possibly Social Work. Having no basis in clinical applications and little in empirical research methodology, Outdoor Education is not well suited to this type of clinical research. Even graduate Psychology or Occupational Therapy research is problematic because of the complex and poorly defined nature of the field, and it being eclectic and clinically based. Research at Honours and even Masters level requires uncomplicated research topics that are easily investigated in a short time-frame, in a rigid experimental framework, and in topics familiar to supervising academics. In the USA, most empirical research is done by Masters and Doctoral level students, but is constrained by academic requirements inherent in producing a thesis, as mentioned above.

In the foreseeable future, the only realistic avenue for any substantive research in Australia is through specially funded, clinically based research which has the flexibility to investigate clinically relevant issues and can incorporate qualitative methods along with more rigorous quantitative approaches.

A second problem in doing research is being able to establish best practice and a high level of competency in therapists so that the research may be done. This would require further development of existing training programs for mental health professionals so that a sufficient pool could be established of practitioners who were adequately skilled to carry out the interventions being investigated.

Last, a commitment would be required from research institutions and mental health services to conduct this type of research. Sufficient priority would have to be given by any mental health agency to doing clinical research so that services were offered in a way that allowed research to be undertaken. University affiliated or research oriented mental health agencies would be most suitable so that academic and clinical resources could best be integrated. Within the existing context, teaching hospitals and community based services would be best placed for this.

Summary Recommendations

1 Existing wilderness and adventure therapy practitioners, particularly those working with children and adolescents should take account of the need to include families (and/or significant others) as an integral part of the intervention in a way that involves all members of the system in a change process. Applications should be made with an understanding of ethnic, cultural and community issues both in how services are orientated, and how individual cases are managed.

2 The application of wilderness and adventure interventions always be undertaken with due regard to conventional ethical principles of professional and therapeutic practise. The very nature of the activities and role of the therapist requires an especially great awareness and understanding of ethical issues and the needs and rights of the client. Ethical issues should be central to any training for practitioners. Practitioners should always be very clear about practising within the limits of their expertise, both technical and therapeutic.

3 Where clinical judgement dictates, access to wilderness and adventure therapy be available for clients, so they may have access to effective, brief treatment in the least restrictive manner, with least stigma and greatest regard for client involvement, collaboration and empowerment.

4 Public sector mental health administrators consider directing appropriate funds, and put in place support mechanisms to enable mental health services to develop wilderness and adventure therapy services.

5 Public sector mental health services develop appropriately resourced wilderness and adventure programs tailored to the specific needs of their client groups as a front-line treatment in combination with conventional therapies and case management.

6 Private sector mental health services investigate health insurance funding and rebate arrangements for adventure therapy and wilderness and camp-based treatment as an alternative or adjunct to clinic based in-patient and out-patient services.

7 A professional body be established at state and/or national levels to develop guidelines for minimum competencies, training needs and to advise the mental health field, consumers and the general public on standards of practice, ethical and professional issues.

Accreditation of wilderness and adventure programs/services be undertaken by organisations such as Outdoor Education associations or health service accreditation bodies based on criteria equivalent to those of the Association of Experiential Education.

8 To meet the increasing demand, existing training programs in wilderness and adventure therapy be further developed, and standards and curricula developed according to guidelines of minimum competence as determined by a professional association. Involvement with tertiary education institutions be investigated as part of this.

9 Mental health professionals be encouraged to undertake training to develop requisite skills in basic adventure and wilderness activities in addition to specialised skills in the implementation of wilderness and adventure therapy.

10 Special funds be allocated to clinical research with a priority to investigate suicide prevention. This be conducted through teaching or research affiliated mental health services (such as teaching hospitals) in conjunction with universities to clinically evaluate the most effective methods of delivering wilderness and adventure therapy in local mental health service contexts.

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Appendix A: Summary of Program Profiles in Key Areas

Length of program/time frame design: Varied from 2-3 days through to 15 months plus (eg. Therapeutic wilderness camping). Time frames varied from entirely part-time through to entirely full-time (eg. Therapeutic wilderness camping: 7 days/week, 52 weeks/year)

Other therapy: Varied from none to extensive range of multi-modal group therapies, only few uni-modal programs

Peak number of clients / group sizes Varied from 8 through to 165, group size typically was 6-8.

Costs per client Varied from US$120 to US$500 for residential day costs (ie. clinical or wilderness), typically US$120-150.

Staff qualifications Varied from minimal safety/technical/first-aid through to cross-trained PhD mental health professionals (eg Psychologists, Social Workers, etc.)

Activities undertaken Indoor trust and initiative activities, ropes course, back-packing, mountaineering, peak ascent, canyon decent, hand-cart pushing, rock climbing & abseiling, canoeing, kyaking, white-water rafting, cycle touring, caving, survival training, hut building, solo.

Restrictions to access Typically acute psychiatric & suicidal, self-harming, eating disorders, sociopathic traits, history of extreme violence/substance abuse, IQ<85.

Diagnostic types

Adventure Therapy Varied from: substance abuse, depression, 'youth-at-risk', sex-offenders, ADHD, Conduct Disorder & Oppositional-defiant Disorder, sociopathy.

Wilderness Therapy Varied from: all &/or any diagnosis, depressed, suicidal, Oppositional-defiant Disorder, Conduct Disorder, eating disorders, substance abuse, ADHD, sex offenders, substance abuse, family dysfunction, sexual/physical abuse, learning disorders, impulse problems.

Therapeutic Wilderness Camping Varied from: learning disorders, social skill deficits, Conduct Disorder, Oppositional-defiant disorder, Post Traumatic Stress Disorder, sexual/physical abuse, ADHD, substance abuse, runaways, anxiety, depression and treatment resistant clients.

Outcome Differentials

Adventure Therapy: Varied from: universal benefit to just low achievers, environmentally aware and reflective clients, group composition, unified view of the problem in the family, home support. IQ<80 makes processing more difficult.

Wilderness Therapy: Varied from: physically oriented otherwise same as for any other type of therapy, older and female respond quicker, short-term substance abusers, older males, depressed and suicidal. ADHD, Conduct Disorder and family dysfunction are harder to treat.

Therapeutic Wilderness Camping: Varied from: younger make better progress, recency of trauma, internalizing problems, borderline personality disorder, Conduct Disorder & Oppositional-defiant Disorder, low self-esteem. Substance abuse is difficult to motivate.

Individual versus group approaches Universally an emphasis on the group as the preferred therapeutic medium, some programs gave virtually no individual consideration, while most gave variable amounts.

Involvement of families/parents Varied from none to primarily out-patient and adventure family therapy. Typically parent support during or on completion of program.

Adjunctive therapies Varied from none to ad hoc individual therapy, monthly family therapy, pre and post program individual and family therapy. Often agencies were left to institute whatever adjunctive therapy was considered necessary.

Therapeutic models Included: Adventure Based Counseling, eclectic approaches, systemic, narrative, brief, strategic and solution oriented approaches, humanistic, social learning models, therapist as role-model, Reality Therapy, behavioural and cognitive-behavioural, metaphor development, eco-psychology.

Presumed therapeutic factors Included: holism, systemic, peer culture, rites of passage, success experiences and solution orientation, adaptation, novel context, wilderness environment, competency, risk, questioning, community and group cohesion, natural consequences, inter-personal learning, creation of disequilibrium, goal setting, re-capitulation of family unit, role-modelling, development of resilience, supportive relationships with adults, shared unique experience.

Methods of transfer and follow-up Varied from none to follow-up days and booster groups, weekly phone calls for months following, home/school trials, parent skill development, ongoing out-patient individual and family therapy, optional return to program for 1-2 weeks, community development activity, transitional housing program, hand-over to agency.

Staffing ratios Varied from 1:1 to 1:12, typically 1:3 (families, 1:4 families)

Appendix B: Adventure Therapy Program Profiles

PROGRAM 1

PROGRAM NAME: Basecamp

CONTACT PERSON: John Barrett

ADDRESS & CONTACT DETAILS: 10 Kindar drive, New Abbey, Scotland, DG2 8DG, UK

Phone/Fax: 013-8785-0493

AUSPICE ORGANISATION: None

FUNDING&/OR FEE STATUS: Self-funding Charity: ~12% contract fees, remainder fundraising

SUMMARY DESCRIPTION

Medium-term, base camp and expedition facility, water and mountain based wilderness-adventure enrichment program for 'youth at risk' referred by various youth agencies.

PROGRAM PARAMETERS

PROGRAM AIMS: 1) genuinely assist young people in trouble or 'at risk' to address their difficulties and improve the quality of their lives: to enable young people to increase confidence and self-esteem, learn more about themselves and how they relate to others, become empowered to be more effective in their lives. 2) provide training and resources to care and custodial agencies who wish to develop adventure based experiential work as part of their own practice. 3) undertake and disseminate research into effective adventure based programs and promote good practice in the use of adventure as a developmental medium with young people in trouble or at risk.

PROGRAM PHILOSOPHY: None articulated.

DESCRIPTION OF TYPE(S) OF PROGRAM: Varied, tailored to client and agency needs, short and long-term.

NUMBER OF CLIENTS: Maximum of 12, average 8.

ANNUALLY: 250-300 for short-term, 40 long-term.

STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS:

3 program staff (1 Director, 1 Deputy Director, 1 Project Worker), 3 support & administration staff, up to 3 volunteers (from pool of ~12)

NUMBER OF DAYS PER PROGRAM: Ranges from 3 days (W/E) to 26 weeks (non-residential, part-time, 1-2 days per week)

TYPES OF ACTIVITIES UNDERTAKEN & DAYS FOR EACH:

Canoeing/kyaking, climbing/abseiling, mountaineering expeditioning, initiatives (in/outdoor) which varied depending on group and/or agency preference.

OTHER THERAPY TYPES:

General group work (inc. Counselling, processing, ad hoc issues), 1:1 counselling around issues related to offending, incidents, behavioural triggers, etc.. Group social skill training (ref. Robert Ross: cognitive reasoning theory). Family/parent work done on case-by-case basis by referring agency (infrequent).

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: Local regional govt. Social services, special education, secure residential units, young offender institutes including prison inmates.
REFERRAL MECHANISMS: Agency referral, some agencies solicited, networks developed. Programs developed according to agency need.
RESTRICTIONS TO ACCESS: Client needs to be able to verbally contract on participation guidelines. Psychiatric, drug and alcohol dependent clients, or those disruptive to group may not be accepted (have 1:1 counselling before attending?). Attempt to be as inclusive as possible.
COST PER CLIENT PER DAY:
SUPPORT ORGANISATIONS: Dept.s of Social Work, offender institutions.
CLIENT AGE RANGE: 12-15, 15+ (~21-22), 17+ for young offenders.
DIAGNOSTIC TYPES: None targeted; Youth-at-risk.
DIAGNOSTIC OUTCOME DIFFERENTIALS: Young offenders receptive to physical challenge but have difficulty with responsibility.

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: Variable (shot-term: W/E through to 1 year), typically intensive course at least 5 weeks
INDIVIDUAL vs GROUP APPROACHES: Both on individual needs basis, individual work to support group experience.
FAMILY / PARENT THERAPY: Very rarely in individual cases.
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): Individual in-house counselling concurrent with program.
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: Not applicable.

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: Humanistic
THEORETICAL MODELS: Adventure-based Counselling, challenge by choice assumptions (Karl Rhonke)
RANGE OF THERAPEUTIC INTERVENTION TYPES: Gary Dennim Offender Curriculum (where applicable), usually individual goal setting (1:1), Transactional Analysis group models to aid understanding of group process with clients.
SPECIFIC THERAPEUTIC FACTORS: Opportunity to experience something unique and shared with others.

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: none
NON-CLINICAL: informal assessment is made via adventure activities in vivo, relevant background information is made available by youth agencies upon referral.

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: Staff hand-over meetings before and after sessions, end of session de-brief, participant review record, community based days on non-program days, repeat previously successful activities.
POST-PROGRAM TRANSFER METHODS: concurrent days back in community, otherwise no formal methods.
FOLLOW-UP METHODS & TIME FRAME: Done by case worker, feedback information gained during course (ie. Assessment information).

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: Post-program, staff de-brief after each session in structured format. Individual review record forms basis of final assessment and evaluation.
MEASURES USED: coping skills observed/reported, successful participation
FOLLOW-UP EVALUATION: None
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: staff hand-over, case & program planning.
CLINICAL UTILITY OF DATA: Highly useful for program planning, and individual case planning and assessment.
ANALYSIS OF DATA: Forming programming conclusions and directions.

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: ***Why Adventure?*** research report, Robert Ross (criminologist) cognitive development theory, 1992 survey and directory of Adventure Based Programs (published by Chris Loynes)

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: 1:1 with smaller groups, usually 1:2
LEVELS OF STAFFING: 3 direct intervention staff, ~3 volunteers, 3 admin./support.
STAFF QUALIFICATIONS: basic Mountain Leadership Certificate, first-aid, etc. in-house training and external training depending on individual staff need (eg. Counselling skills).
STAFF TRAINING IN THERAPY: external training for staff if required (eg Diploma course in counselling), short external courses (various)
SUPERVISION STRUCTURES: Director and Deputy Director supervised Project Worker (Director sought external supervision), external personal supervision encouraged.
INTERNAL STAFF TRAINING PROGRAMS: staff meetings, re: wider issues such as ethics, volunteers exposed to practical skills with view to understanding psychological processes.
MAJOR PERCEIVED STAFF TRAINING NEEDS: inter-personal skills, facilitation skills, basic group counselling theory and practice. Staff should experience their own counselling. Team functioning crucial and requires long time period to develop.

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION: Professional Association is required to promote research-practitioner model, membership for individuals not organisations to promote dialogue and set up or accredit training programs.
CLINICAL BACKGROUND TRAINING / ADVENTURE THERAPY TRAINING ISSUES: Cross - training not necessary if time to develop common understanding
OTHER: Stimulation and support to individual rather than organisations. Old, established traditions/philosophy in Outdoor Education create resistance to new (therapeutic) models. Foundation for Outdoor Education lacks effectiveness to support & promote profession.

KEY STRENGTHS OF PROGRAM

- Programs are tailored to specific groups (agencies and clients), and dependent on ideas of clients.
- Small scale of operation facilitated flexibility and adaptability to client need.

PROGRAM LIMITATIONS

- Inexperience of staff
- Size of operation increased intensity for staff - stressed importance of staff selection
- Inadequate space and facilities
- had to exclude some clients occasionally because of lack of expertise (eg. Psychiatric problems)
- Director carried most responsibility and skills, difficulty in delegating aspects of role.

KEY PROGRAM FEATURES

- flexibility & adaptability to individual need
- client input into program components
- cohesive and clear direction in approach

CONCLUSIONS

Resource limitations create greatest strain. Programs have a natural (short-medium term) life-span? This client group is the most difficult to provide for, especially in terms of staff selection and level of skills required by staff. Program worked best with residential services when there was good concurrent and post-program support. Program and concept is biased towards white, middle class assumption and values. Program no longer exists due to inability to secure on-going funding.

PROGRAM 2

PROGRAM NAME: Brathay Hall Youth Program

CONTACT PERSON: Steve L Manager Youth Services, Aileen MacEachen

ADDRESS & CONTACT DETAILS: Brathay Hall Trust, Brathay Hall, Ambleside, Cumbria LA22 OHP, Phone 015-3943-3041, Fax 015-394-3-4424 Email: 1015222306@compuseve.com

AUSPICE ORGANISATION: Brathay Hall Trust

FUNDING&/OR FEE STATUS: Charity, not-for-profit

SUMMARY DESCRIPTION

Base facility and mountain based Adventure Based Counselling program for 'youth at risk' as part of broader adventure training facility utilising adventure and water activities, and overnight expeditions for youth agency referred adolescents.

PROGRAM PARAMETERS

PROGRAM AIMS: Develop self-confidence, maximise opportunities, empowerment of clients. Give choice to clients to make their own decisions.
PROGRAM PHILOSOPHY: None specified
DESCRIPTION OF TYPE(S) OF PROGRAM: Adapt resources to particular client group needs using a variety of methods while maintaining a small peer based context. Usually residential.
NUMBER OF CLIENTS: Average of 8, ranging between 6 to 10.
PEAK: 60-80 maximum, usually 40.
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: All have youth work or related background, often with additional training in drama methods, NLP, music, etc.
NUMBER OF DAYS PER PROGRAM: varies from 2 day weekends through to 12 day programs, typically 3-5 days.
TYPES OF ACTIVITIES UNDERTAKEN: initiatives, ropes course, canoeing, mountaineering, climbing, arts/drama/music/video/screen printing. General principal is that activity involves some form of problem solving.
OTHER THERAPY TYPES: only via agency or on individuals' own initiative, 1:1 support if individuals require it because they are having difficulty within the group. Ad hoc in vivo communication, leadership and social skills

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: Brathay is approached by various agencies including Youth-at-Risk UK, youth services, police, and public schools(ie. Fee paying). That is, clients must already be clients of another service.
REFERRAL MECHANISMS: Agency negotiates program parameters depending on their needs and financial constraints. All client agencies are means tested
RESTRICTIONS TO ACCESS: limited to access via intermediate referring agency. Individuals with violent or self-harming behaviour who lack support may be excluded.
SUPPORT &/OR AUTHORITY ORGANISATIONS: varied referring agencies.
CLIENT AGE RANGE: 14 - 25, typically 16-25
COST PER CLIENT PER DAY:
DIAGNOSTIC TYPES: no assessment history sought except where physical safety issues may be relevant.
DIAGNOSTIC OUTCOME DIFFERENTIALS: Subjective impression is that low achievers benefit the most, those with the capacity to reflect and who have an awareness of the environment benefit the most. An important factor regarding outcome appears to be the peer group composition.

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: variable
INDIVIDUAL vs GROUP APPROACHES: greatest emphasis on using the group and the peer experience as the medium for change.
FAMILY / PARENT THERAPY: referred to agency if issues are identified.
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): only if provided by referring agency.
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: hand-over assessment information to agency at the conclusion of the program.

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: individual determines their own objectives/goals. Any program is always based around agency involvement post-program.
THEORETICAL MODELS: eclectic approach used to achieve program objectives. Individual facilitators use their own models based on their own training. Generic model is "Do-Review-Apply".
RANGE OF THERAPEUTIC INTERVENTION TYPES: depends on individual facilitators repertoire

of skills
SPECIFIC THERAPEUTIC FACTORS: environment, community, supportive relationship with adults, freedom to express themselves.

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: none
NON-CLINICAL: informal assessment is made via in vivo adventure activities, youth agencies make available relevant information upon referral.

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: same facilitation staff in all activities, daily review meetings involving facilitators, support (technical) staff, agency staff, and (occasionally) clients.
POST-PROGRAM TRANSFER METHODS: post-course meeting within one week of the end of a program (either face to face or by telephone)
FOLLOW-UP METHODS & TIME FRAME: disclosures of important information/incidents are contracted with the client to be followed up by the agency. This is confirmed with the agency post-program.

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: within approximately 3 months
MEASURES USED:
PSYCHOMETRIC: none NON-PSYCHOMETRIC: none
FOLLOW-UP EVALUATION: verbal discussion and feedback regarding agency satisfaction and client feedback, ie. Youth workers and clients anecdotally report changes.
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: client satisfaction.
CLINICAL UTILITY OF DATA: individual facilitators attempt to consolidate learning from the feedback received.
ANALYSIS OF DATA: none

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: none

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: 1:12 maximum depending on activity, average is 1:8
LEVELS OF STAFFING:
Course Director ---> Trainers (group facilitation) ---> Technical support staff (physical safety) ---> staff volunteers
STAFF QUALIFICATIONS: Trainers: Youth Work / Teaching or equivalent, Technical Staff: various Outdoor Education qualifications
STAFF TRAINING IN THERAPY: none in-house, depends on individual facilitators' previous external training
SUPERVISION STRUCTURES: 1) management evaluation structures per organisation procedures ie. Skills training, 2) Co-training, peer training group, 3) informal collegial support, 4) external de-briefing service. Presently considering a mentor system.
INTERNAL STAFF TRAINING PROGRAMS: staff induction tailored to individual needs, staff are endorsed on skills and observe sessions. Ad hoc twice yearly staff development with external consultants: eg. Myer-Briggs training, drama methods, Neuro-linguistic Programming, etc.
MAJOR PERCEIVED STAFF TRAINING NEEDS: processing skills, specific and specialist areas; new skills, eg. Drama, NLP, etc.

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KEY PROFESSIONAL ISSUES

Need for university level training where theory is strongly linked to practice, and evaluated/trialed on site. Need to experiment with service models, ie. Community integration models. Questions regarding how does this field benefit an understanding of other areas (eg. Corporate)

KEY STRENGTHS OF PROGRAM

- capacity for variety in programs reduces stress on staff
- staff and management structures are strong giving a cohesive team ethos, strong sense of community, and commitment of staff.
- programs are driven by client need - high degree of flexibility
- high quality of staff recruited
- clear organisational direction, while staff are encouraged to take initiative
- corporate training ethos encourages high standards and professionalism

PROGRAM LIMITATIONS

- Agency is dominated by white, middle-class staff and values
- creativity in approach is only limited by practical and financial constraints
- stratified and compartmentalised management hierarchy

KEY PROGRAM FEATURES

- adjunctive and collaborative programs with *Youth-at-Risk, Fair bridge* and other agencies.
- funding for youth programs is partly derived from corporate programs

CONCLUSIONS

- program is highly dependent on referring agency to transfer behaviour change
- what value short-term programs?
- referral routes exclude socially disadvantaged and marginalised populations, as clients must already be engaged and motivated to get referred?

PROGRAM 3

PROGRAM NAME: Eagleville Hospital Adjunctive Therapies Department Challenge Program

CONTACT PERSON: Vaughan Coleman Recreation Therapist, Sue Wiese Snr Adjunctive Therapist

LOCATION: Eagleville, Philadelphia, Pennsylvania, USA

ADDRESS & CONTACT DETAILS: 100 Eagleville Road, Eagleville, Pennsylvania, USA. Post: P.O. Box 45 Eagleville, PA 19408-0045, USA. Phone: 610-539-6000, Fax: 610-539-6249/7678

AUSPICE ORGANISATION: Eagleville Hospital (private non-profit medical service)

FUNDING&/OR FEE STATUS: Medical Insurance funded, non-profit

SUMMARY DESCRIPTION

Integrated, private hospital based, multi-modal clinical adventure therapy program as part of in-patient treatment for adults with substance dependence referred by health insurance companies.

PROGRAM PARAMETERS

PROGRAM AIMS: provide an holistic adjunctive treatment for substance dependent adults to increase efficacy of multi-disciplinary approach to recovery from substance dependence
PROGRAM PHILOSOPHY: holistic and action oriented methods activate therapeutic modalities which may not be reached using traditional treatments, with an emphasis on peer support through group oriented approaches.
DESCRIPTION OF TYPE(S) OF PROGRAM: group based daily adventure activities integrated within a multi-disciplinary group and individual in-patient program.
NUMBER OF CLIENTS: 116 beds: 64 male, 42 female, 10 dual-diagnosis.
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: (previously 18, now 2) adjunctive therapists: primarily Recreation Therapy, additional training in Adventure Based Counselling & ropes course instruction, as well as art therapy, horticulture therapy, etc. Clinical teams consist of psychologist, nurse, addiction counsellor, group psychotherapist, and social worker.
NUMBER OF DAYS PER PROGRAM: 28-30 day in-patient program with a 3 week cycle
TYPES OF ACTIVITIES UNDERTAKEN & DAYS FOR EACH: socialisation activities, co-operative skills, trust activities and 'challenge' ropes course (high & low elements) half-day.
OTHER THERAPY TYPES: music therapy, art & movement therapy, horticulture therapy, educational module, leisure education, group psychotherapy, individual therapy (as needed).

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: insurance company referred.
REFERRAL MECHANISMS: 'managed care' assessment and referral by insurance co.
RESTRICTIONS TO ACCESS: require private health insurance or full-fees, dependent upon approval from insurer
SUPPORT &/OR AUTHORITY ORGANISATIONS: none
CLIENT AGE RANGE: 18+
COST PER CLIENT PER DAY:
DIAGNOSTIC TYPES: must have primary substance dependence, must have a medical or psychiatric diagnosis to qualify for insurance
DIAGNOSTIC OUTCOME DIFFERENTIALS: appears to be universal degree of benefit

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: 3 week cycle of 4 groups (1-2 hours) each day
INDIVIDUAL vs GROUP APPROACHES: primarily group based (open entry format), referral for individual therapy only if needed for specific issue, eg. Anger management, or addictions counsellor for additional work.
FAMILY / PARENT THERAPY some family therapy as needed, family education groups on week-

ends
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): as part of overall program
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS hand-over meetings, individualised therapeutic objective setting.

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: multi-modal, holistic and integrated approach.
THEORETICAL MODELS: Adventure Based Counselling
RANGE OF THERAPEUTIC INTERVENTION TYPES: see above
SPECIFIC THERAPEUTIC FACTORS: peer support, goal setting, success and solution orientated.

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: assessment regarding addictive behaviour and any concomitant psychopathology via usual range of clinical assessment processes and psychometric tests
NON-CLINICAL: assessment is made during adventure activities in vivo.

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: hand-over and case review meetings, multiple role of adjunctive and traditional therapists.
POST-PROGRAM TRANSFER METHODS: none
FOLLOW-UP METHODS & TIME FRAME: none

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: ad hoc
MEASURES USED: clinician observation and documentation
FOLLOW-UP EVALUATION: none
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: none
CLINICAL UTILITY OF DATA: feedback to clinician to inform practice
ANALYSIS OF DATA: N/A

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: none

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: 1:8, usually 2:16
LEVELS OF STAFFING: co-therapy roles
STAFF QUALIFICATIONS: qualified and licenced mental health professionals, usually Recreation Therapists (Bachelor degree)
STAFF TRAINING IN THERAPY orientation/education to other clinical staff in adventure therapy.
SUPERVISION STRUCTURES: comprehensive 5 level supervisory process from observation through to independent practice; individual ad hoc
INTERNAL STAFF TRAINING PROGRAMS: introductory activity for all staff entering the hospital
MAJOR PERCEIVED STAFF TRAINING NEEDS: N/A

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION: needs some form of accreditation scheme
CLINICAL BACKGROUND TRAINING / ADVENTURE THERAPY TRAINING: none stated

OTHER: Adventure therapy needs legitimisation with insurers who will see it as value for money. There is a push to out-patient based services (less expensive), and reduction in therapeutic resources hence less individualised treatment. There is a lot of interest from other staff in these methods.

KEY STRENGTHS OF PROGRAM

- highly integrated, multi-modal
- good level of resourcing: ie. 2 therapists per group
- high level of therapeutic training and skill of staff, ie. All qualified mental health professionals
- individualised treatment focus and planning

PROGRAM LIMITATIONS

- dependency of funding on insurers values, hence it is precariousness (eg. Reduction from 18 to 2 adjunctive therapists)

KEY PROGRAM FEATURES

- onsite ropes course
- supported and highly integrated therapy of equal prominence in overall program

CONCLUSIONS

- health insurance and funding climate is highly influential over resources, access and integrity of program
- stronger evaluation program may bolster position of program when under scrutiny of insurance companies.

PROGRAM 4

PROGRAM NAME: Lifespan Wilderness Therapy Program

CONTACT PERSON: Dr Dene Berman & Dr Jennifer Davis-Berman

ADDRESS & CON TACT DETAILS: 1698 Forestdale Ave, Dayton, Ohio 45432, USA

Phone: 513-426-2079 Fax: 513-848-8655

FUNDING&/OR FEE STATUS: private fees / private health insurance

SUMMARY DESCRIPTION

Clinical Psychology & Social Work private practice, extended wilderness expedition based therapy for adolescents with mental health problems, self and mental health professional referred. Extensive, published high quality empirical evaluations and unique general text book: *Wilderness Therapy: Foundations, Theory & Research.*

PROGRAM PARAMETERS

PROGRAM AIMS: psychotherapeutic treatment of adolescent mental health problems
PROGRAM PHILOSOPHY: a primary therapy for addressing the needs of troubled adolescents starting with strengths and filling out areas of deficits
DESCRIPTION OF TYPE(S) OF PROGRAM: various, usually extended wilderness expeditions of weeks duration
NUMBER OF CLIENTS: maximum of 8
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: qualified and licenced mental health professionals with industry standard qualifications in wilderness activity technical, risk management and safety/first-aid
NUMBER OF DAYS PER PROGRAM: minimum of 9 days up to 14
TYPES OF ACTIVITIES UNDERTAKEN: backpacking, canoeing/kyaking, climbing/abseiling
OTHER THERAPY TYPES: pre and post trip individual and family therapy

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: therapists, schools, medical practitioners
REFERRAL MECHANISMS: self-referral, inter-professional referral
RESTRICTIONS TO ACCESS: limited to behavioural suitability which is assessed by graduated activities
SUPPORT &/OR AUTHORITY ORGANISATIONS: none
CLIENT AGE RANGE: 13 - 17, typically 14 - 17, streamed into older or younger groups
COST PER CLIENT PER DAY:
DIAGNOSTIC TYPES: all with the exceptions of: severe ADHD/ADD, inability to internalise group values or participate in therapy, violent, acute psychiatric conditions. Those with recent acute psychiatric conditions must be stabilised and with medications having had effect.
DIAGNOSTIC OUTCOME DIFFERENTIALS: physically orientated adolescents do better, otherwise outcomes are the same as with any other therapy

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: 10 days, several day sessions pre and post expeditions which include full psycho-social assessment if one not completed already

INDIVIDUAL vs GROUP APPROACHES: primary emphasis on group therapy to deal with conflicts and issues, individual focus only if approached by the individual while on expedition
FAMILY / PARENT THERAPY family meeting prior to expedition
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): always concurrent individual counselling pre and post expedition
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: joint goal setting for Wilderness Therapy Program and individual counselling. Adolescent goals are negotiated with parents. New issues that arise during expedition are 'flagged' for future post expedition counselling if beyond the scope of dealing with them during the wilderness therapy expedition.

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: application of contemporary therapies where appropriate within the parameters of extended wilderness expeditions. Additionally, therapist adopts role as group therapist/parent figure
THEORETICAL MODELS: systems and humanistic therapy base; social learning theory, therapist as role model
RANGE OF THERAPEUTIC INTERVENTION TYPES: range of contemporary psychotherapeutic methods as used by psychologists and social workers.

SPECIFIC THERAPEUTIC FACTORS: 1) establishment of community, re-capitulation of the family unit and transfer of control and authority to the adolescents, 2) role modelling, 3) issues are confronted and dealt with as they are projected into the wilderness-group context, 4) development of learned optimism which leads to resilience

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: family and adolescent diagnostic assessment via conventional clinical and psychometric methods pre expedition.
NON-CLINICAL: continuing clinical assessment is made via adventure activities in vivo.

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: mid-day group meetings, in addition to morning and evening meetings.
POST-PROGRAM TRANSFER METHODS: on-going group and individual therapy, family meetings post expedition, graduate groups, reunion bar-b-que, writing letter to parents (a) listing gains, b) this is what I need from you.
FOLLOW-UP METHODS & TIME FRAME: first week is especially important (see 1980's article)

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: pre and post psychometric clinical inventories - see JEE article -
MEASURES USED: - see numerous articles -
FOLLOW-UP EVALUATION:
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: empirical scrutiny of efficacy of program and for publication for the development of the field
CLINICAL UTILITY OF DATA: highly utilizable
ANALYSIS OF DATA: pre-post, quasi-experimental design

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: - numerous Journal papers -
Publication of ***Wilderness Therapy: Foundations, Theory & Research*** (1994, Davis-Berman & Berman)

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: 2:8, kyaking 5:1+
LEVELS OF STAFFING: PhD clinicians who are cross-trained as primary therapists, outdoor instructor with some counselling/therapy training
STAFF QUALIFICATIONS: Therapists: PhD licenced Psychologist/Social Worker
STAFF TRAINING IN THERAPY: - see above -
SUPERVISION STRUCTURES: in field supervision, progress notes written daily
INTERNAL STAFF TRAINING PROGRAMS: Wilderness Education Association Stewardship Course; "Counselling Skills for Outdoor Leaders", plus technical outdoor training.
MAJOR PERCEIVED STAFF TRAINING NEEDS: In addition to qualifications as a therapist, appropriate range of technical wilderness skill training including remote first-aid, etc.

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION: (refer *Wilderness Therapy*), there should be the same accreditation standards for wilderness therapy as there are for any other clinical therapy program (eg. Hospital unit), that is, a basic qualification as a clinician. There should be an increase in therapeutic skills and experience with increasing isolation and remoteness due to increased difficulty in accessing specialist mental health services in the case of

psychiatric crisis.
OTHER: crisis intervention skills are essential

KEY STRENGTHS OF PROGRAM

- therapy for adolescents who don't respond to conventional therapy
- least restrictive form of treatment
- more intense and less structured than other forms of therapy
- power of the group experience
- highest level of therapeutic expertise
- highest level of published clinical evaluation of efficacy of program

PROGRAM LIMITATIONS

- requires independent (private health insurance) funding
- difficulty for socially disadvantaged to access?
- difficulty with collaborative work because of the scarcity of similarly qualified wilderness therapists

KEY PROGRAM FEATURES

- highest level of clinical therapy training (PhD)
- comprehensive, high quality empirical evaluation and numerous publications including text book on theory and practice
- continuity of therapy through pre and post expedition clinical assessment and therapy

CONCLUSIONS

- stands as a model of 'best practice' on its own: highest clinical standards of therapeutic practice applied throughout all components and phases of program
- is a distinct model of wilderness therapy which provides a contrast to adventure therapy type programs
- has clear theoretical and clinical paradigm which is in line with contemporary therapeutic practice in mainstream clinical settings

PROGRAM 5

PROGRAM NAME: The Browne Centre - University of New Hampshire: Family Therapy Program

CONTACT PERSON: Professor Michael Gass PhD \ Dr Ann Driscoll

ADDRESS & CONTACT DETAILS: 340 Dame Road, Durham, NH 03824-4800 USA

Phone: 603-862-2070 Fax: 603-862-0154

AUSPICE ORGANISATION: University of New Hampshire

FUNDING&/OR FEE STATUS: means tested dependent on financial status, service costs off-set by corporate training income

SUMMARY DESCRIPTION

Adventure therapy research and development branch of the Department of Physical Education, University of New Hampshire: concurrently providing training to undergraduate and post-graduate students in outdoor leadership through experimental therapeutic programs to adolescents and their families. Family Therapy program is the latest therapeutic program for adolescents with mental health problems.

PROGRAM PARAMETERS

PROGRAM AIMS: Research & development of new techniques and theory in systemic and strategic adventure therapy for adolescents while simultaneously providing experimental services to adolescents and their families as well as training graduate and post-graduate students in outdoor leadership
PROGRAM PHILOSOPHY: to further theory and techniques in adventure therapy while providing an effective and accessible therapeutic services in addition to training students.
DESCRIPTION OF TYPES OF PROGRAM: adventure therapy prototypes which are developed, researched and evaluated. Predominantly group action methods, initiative and ropes course based.
NUMBER OF CLIENTS: variable, usually 30 per year
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: Psychologists, social workers, marriage and family therapists as supervisors, post-graduate students as primary counsellors.
NUMBER OF DAYS PER PROGRAM: 10-12 weeks of one day every weekend, alternating adventure therapy day and 2 hour home visit family therapy session.
TYPES OF ACTIVITIES UNDERTAKEN & DAYS FOR EACH: full range of conventional and experimental ropes/challenge course activities in addition to action methods and initiative tasks, undertaken on a day basis
OTHER THERAPY TYPES: crisis family therapy out-patient sessions on needs basis

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: mental health professionals/agencies, teachers, parents, police.
REFERRAL MECHANISMS: direct referral to Browne Centre
RESTRICTIONS TO ACCESS: geographic, ie. Must be within travel distance of Browne Centre
SUPPORT &/OR AUTHORITY ORGANISATIONS: University of New Hampshire
CLIENT AGE RANGE: minimum of 6 y.o., usually adolescents (NB child care available for under 6yo)
COST PER CLIENT PER DAY:
DIAGNOSTIC TYPES: any except Pervasive Developmental Disorders
DIAGNOSTIC OUTCOME DIFFERENTIALS: those families who have failed traditional family therapy do well, families who are able to think metaphorically (mothers especially good at this), and those families who have a unified view of what the problem is have good outcomes.

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: weekly, weekend time frame: alternative week-ends are home visit traditional family therapy sessions (2 hours) which include some initiative/problem solving tasks.

W1 orientation and engagement day
W3 rockclimbing and abseiling day
W5 initiatives day ---> overnight ---> problem solving initiatives day
W7 family issues day
W9 low elements ropes/challenge course day

W11 high elements ropes/challenge course day & graduation
INDIVIDUAL vs GROUP APPROACHES: family groups of 6 - 8 (minimum of one child/adolescent and 1 parent)
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): none offered in addition to program
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: reports from previous therapists upon referral

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY/ THEORETICAL MODELS: brief, strategic, systems orientated changed based on solution focussed processing (see Gass & Gillis, 1995)
RANGE OF THERAPEUTIC INTERVENTION TYPES: conventional and experimental ropes/challenge course activities combined with action methods, initiative exercises and alternating with traditional family therapy.
SPECIFIC THERAPEUTIC FACTORS: action centred methods, unfamiliar environment, climate of change, assessment capabilities, small group development/genuine community, focus on successful rather than dysfunctional behaviour, unique role of therapist, family resilience, and emphasis on parent-child metaphor development

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: family assessment and adolescent assessment within family context, diagnostic information from referring therapists may be given. Further clinical assessment through adventure activities.
NON-CLINICAL: continuous through adventure activity by non-clinically trained facilitators.

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: adventure therapist is co-therapist in home based traditional family therapy, hand-over weekly individual (family) objective setting (framing)
PROGRAM TRANSFER METHODS: ad hoc out-patient traditional family therapy week-days
FOLLOW-UP METHODS & TIME FRAME: none

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: pre and post program
MEASURES USED:
1) Index of Family Relations (Hudson)
2) Behaviour skills checklist (Gass)

FOLLOW-UP EVALUATION: ?
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: evaluation of program efficacy in changing adolescent behaviour in family context
CLINICAL UTILITY OF DATA: ?
ANALYSIS OF DATA: ?

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: many! As part of graduate theses at University of New Hampshire

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: 2:6-8 families
LEVELS OF STAFFING: adventure counsellors supervised by qualified marriage & family therapist/psychologist/social worker, family therapists conduct family therapy with adventure counsellors

as co-therapists
STAFF QUALIFICATIONS: qualified mental health professionals, supervised post-graduate adventure counsellors
STAFF TRAINING IN THERAPY: supervision as part of post-graduate outdoor counselling course
SUPERVISION STRUCTURES: weekly, session by session
INTERNAL STAFF TRAINING PROGRAMS: as part of post-graduate outdoor counselling skills unit
MAJOR PERCEIVED STAFF TRAINING NEEDS: activity framing, re-framing, de-briefing and processing skills

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION: Necessity of the Association for Experiential Education program accreditation scheme
CLINICAL BACKGROUND TRAINING / ADVENTURE THERAPY TRAINING: require training in adventure counselling, especially processing and de-briefing skills, the ability to frame metaphors with families and adolescents collaboratively
OTHER: need for strong professional networking and professional affiliation. Lack of support and growth of the profession is not primarily lack of research, but ability to show cost effectiveness of what is a high skill level therapeutic technique.

KEY STRENGTHS OF PROGRAM

- strong research and evaluation and strive for 'best practice' focus
- innovation in effective and time efficient methods
- strong attention to high level of facilitation skills
- research and development linked to graduate adventure counsellor training

PROGRAM LIMITATIONS

- No long-term follow-up?

KEY PROGRAM FEATURES

- links between research and development, traditional and adventure therapy, university training at post-graduate level through an accessible therapeutic service.

CONCLUSIONS

- linking corporate training programs to therapeutic programs can enhance skill development in adventure counselling trainees and offset costs of service making it more accessible to socially disadvantaged clients.

PROGRAM 6

PROGRAM NAME: Stone Mountain School at Camp Elliott

CONTACT PERSON: Director: Catherine (Cat) Buie-Jennings

ADDRESS & CON TACT DETAILS: 601 Camp Elliott Road, Black Mountain, North Carolina, 28711 USA. Phone: (704) 669-8639 Fax (704) 669-2521

AUSPICE ORGANISATION: Talisman Schools

FUNDING&/OR FEE STATUS: previously: state sponsored on client by client basis, currently: private health insurance funded on client by client basis, non-profit organisation

SUMMARY DESCRIPTION

Long term, residential, therapeutic wilderness camping based school for adolescent males with mental health problems.

PROGRAM PARAMETERS

PROGRAM AIMS: to provide a quality wilderness program for male children and families.
PROGRAM PHILOSOPHY: to develop curiosity and a creative spirit of self-enquiry leading to personal, family and emotional growth. To instil motivation and develop excitement about learning.
DESCRIPTION OF TYPE(S) OF PROGRAM: long-term residential school treatment for a wide range of adolescent and pre-adolescent problems.
NUMBER OF CLIENTS: 21 males, ages 10-18, between 9-18 months duration (usually 12-15; preferred).
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: 15 staff (core of permanent), graduate educated as minimum (preferably psychology, social work, counselling, etc.)
NUMBER OF DAYS PER PROGRAM: 24 hours, 7 days per week, all year except few days over Christmas and Thanksgiving.
TYPES OF ACTIVITIES UNDERTAKEN & DAYS FOR EACH: domestic, residential, camp based and wilderness (usually out-of-state) at least 2 weeks and 6 weekends per year. Usually, every second weekend dependent on trip preparation of adolescents. Regular classroom school is 10 months of the year, 3 hours per day (equivalent to normal school hours, plus 3 hours of options/work projects/life skills (eg. Drugs & alcohol, hygiene, racism). Routine is regimented and planned ahead of time.
OTHER THERAPY TYPES: individual therapy if treatment team (inc. family and staff) feels is necessary, routine peer/group counselling regarding 'here-and-now' issues.

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: via direct marketing, schools, educational consultants, other programs, some state mental health referrals.
REFERRAL MECHANISMS: contact vias parents, then parental application, site visit, then a final decision made by staff.
RESTRICTIONS TO ACCESS: female, acute psychiatric conditions, aggressive or assaultive outside the family, physically handicapped (out of practical resources limitations). Enrollment is voluntary, with some court ordered.
SUPPORT &/OR AUTHORITY ORGANISATIONS: none.
CLIENT AGE RANGE: 11-17+, 14-15 usually.
COST PER CLIENT PER DAY: US$125 per day or US$3,500 per month
DIAGNOSTIC TYPES: Include Learning Disorders, social skills deficits, Conduct Disorder, Oppositional-defiant Disorder, Post Traumatic Stress Disorder, sexual/physical abuse, Attention and Hyperactivity Disorders, substance abuse (post detox.), runaway, promiscuity, anxiety, depression, etc.
DIAGNOSTIC OUTCOME DIFFERENTIALS: younger boys have better prognosis (especially in the wilderness component), the more recent the trauma or pathology the better prognosis, internalizing disorders

respond more quickly. Conversely, boys with long, established behavioural patterns do less well.

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: 24 hours, 7 days, 12 months. Daily routine includes domestic duties, schooling, free time options, meals, domestic tasks, etc.
INDIVIDUAL vs GROUP APPROACHES: emphasis is on peer group resolution of conflicts - here-and-now. Eg.s conflict resolution, peer authority, problem solving, etc. The highest possible level of group autonomy is encouraged.
FAMILY / PARENT THERAPY: families may choose to be involved in the treatment planning, families make monthly visits to liaise with teachers, monthly parent education seminars are given.
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): - see time frame design -
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: staffing is the same for 21 hour periods, with a one hour hand-over meeting between each shift. Teacher hand-over with staff before and after school session, as well as teacher being involved in review meetings. Weekly 1-2 hour case & group review with clinically trained Social Worker (MSW).

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: build responsibility and autonomy based on the earning of privileges from the practical (eg. Knife use) to the social (eg. Respect/honesty)
THEORETICAL MODELS: Glasser, W. Sequential model of hierarchy of needs and behaviours. Premises: 1) all behaviour is purposeful, 2) behaviour needs to be socially acceptable and involve choice, 3) people need to be able to generate alternative behaviours.
RANGE OF THERAPEUTIC INTERVENTION TYPES: group counselling
SPECIFIC THERAPEUTIC FACTORS: 1) natural and logical consequences which instills responsibility, 2) staff; dedicated and involve boys in an extended family, need to have passion about the work and a capacity for demanding relationships.

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: none done by centre, made available by referring professionals/agencies
NON-CLINICAL: educational assessments are made prior to referral, or informally by teacher. Informal behavioural and other assessments made by staff on an on-going basis.

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: hand-over meetings between shifts.
POST-PROGRAM TRANSFER METHODS: termination and follow-up sessions with parents to transfer strategies, establish an individualised exit program including one week home and school trials (transition visits; 1 week on, 1 week off), teacher hand-over to new school (informal meeting or phone contact if too far away)
FOLLOW-UP METHODS & TIME FRAME: establish structures for dealing with family conflicts, hand-over strategies and expectations, train up parents in strategies/routines and boy's skills.

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: none
MEASURES USED: N/A
FOLLOW-UP EVALUATION: none formally on boys, however, certification as a Mental Health program every 3 years, National Association of Therapeutic Wilderness Camps (NATWC) accreditation review, regular Public Schools inspections.
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: quality assurance
CLINICAL UTILITY OF DATA: N/A
ANALYSIS OF DATA: N/A

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: none

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: 2:8
LEVELS OF STAFFING: Executive Director, Program Director, Senior Counsellor, Counsellor. Promotion to different positions is encouraged from within existing staff.
STAFF QUALIFICATIONS: Minimum for all staff is 4 year Bachelor's degree and technical and first-aid wilderness skills
STAFF TRAINING IN THERAPY: professional education program (counselling skills, relevant special skills, etc.), staff are encouraged to attend external workshops/training in technical skills, support given to undertake graduate study (psychology, social work).
SUPERVISION STRUCTURES: Senior Counsellor supervises Counsellors on trips and spends time with groups (40% of the time).
INTERNAL STAFF TRAINING PROGRAMS: orientation program; crisis management, documentation, medication, group dynamics, plus on the job training to integrate this. External consultants come in to do specialised training.
MAJOR PERCEIVED STAFF TRAINING NEEDS: capacity to work within a team, willingness to learn, have practical experience with children (of any age).

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION: staff are expected to have formal certificates in counselling, etc. program accreditation is preferred to certification.
CLINICAL BACKGROUND TRAINING / ADVENTURE THERAPY TRAINING: 4 year Bachelor degree in social science area plus additional counsellor training.
OTHER: National Association of Therapeutic Wilderness Camps needs to increase networking, form strong links between programs as a profession utilising research. Professionalism and professional ethics need to be taught as part of under-graduate study. Reasonable career option upon graduation as salary rates are relatively good for graduates.

KEY STRENGTHS OF PROGRAM

- capacity to anticipate needs of individuals and groups and so plan ahead.
- good quality staff from base counsellor level through to senior management
- flexibility to individualise approach
- focus on 'real life' issues without the distraction of a contemporary community environment, incl. peers, etc.
- isolated and ideal setting
- small and experientially based academic program which is an accredited school

PROGRAM LIMITATIONS

- restricted in doing more whole family work; would require a full-time family worker and some assistance with getting families on-site.
- school amenities are comparable to mainstream school but an increased range would enhance appeal and motivation for students.
- relatively frequent turn-over of staff places pressure on a high need for staff training.
- having a more solid financial base would improve program planning and development

KEY PROGRAM FEATURES

- medium to small and individualised school base allows a good degree of program flexibility
- truly full-time, long-term nature of program gives considerable scope for addressing a broad range of needs
- highly committed staff with clear therapeutic model and good system of training/supervision and clinical review.
- having an accredited full-time school program gives a solid base for integrating educational needs with therapeutic needs.

CONCLUSIONS

- an innovative and sound program that offers a viable alternative treatment for a range of severe mental health problems, utilising a highly integrated holistic approach
- well structured therapeutic systems appear to provide an effective and high quality intervention within a minimumally resourced service.
- good supervision structures are important in this form of long-term and geographically isolated program.

PROGRAM 7

PROGRAM NAME: Project Adventure - LEGACY (Learning Empathy, Gaining Acceptance, Changing Yourself) Program

CONTACT PERSON: Lisa Galm, Program Director, LEGACY Program or Cindy Simpson, Director, Project Adventure.

ADDRESS & CON TACT DETAILS: PO Box 2447, Covington, Georgia, 30210 USA

Phone: 770-784-9310 Fax: 770-787-7764 Email: pase@mindspring.com

AUSPICE ORGANISATION: Project Adventure, Inc.

FUNDING&/OR FEE STATUS: Non-profit, individual clients are most frequently sponsored by Department of Children and Youth Services, State of Georgia

SUMMARY DESCRIPTION

Specialized treatment program of Project Adventure which is a long-term residential adventure therapy and short-term expedition program for court ordered adolescent / pre-adolescent sex offenders. Program began in October 1995.

PROGRAM PARAMETERS

PROGRAM AIMS: Treatment of (court sentenced) juvenile and adolescent sex offenders who are court ordered in the least restrictive setting.

PROGRAM PHILOSOPHY: Sex offending is seen as a disorder of intimacy and empathy which can be

remedied through a positive peer adventure learning environment.
DESCRIPTION OF TYPE(S) OF PROGRAM: long-term residential adventure-based counselling treatment.
NUMBER OF CLIENTS: open group with a maximum of 12 places
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: Teams comprising masters trained direct care staff matched with bachelor trained direct care staff.
NUMBER OF DAYS PER PROGRAM: 5 days per week full-time, 12 months (to date)
TYPES OF ACTIVITIES UNDERTAKEN & DAYS FOR EACH: Initiative games, ropes course, 5 day back-packing expeditions once per month.
OTHER THERAPY TYPES: group counselling, individual counselling, family therapy, school.

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: Court Service Workers
REFERRAL MECHANISMS: Court service worker refers upon involvement with client through sex offending charges.
RESTRICTIONS TO ACCESS: minimum age is 14. Clients with history of severe violence are not accepted.
SUPPORT &/OR AUTHORITY ORGANISATIONS: Department of Child Services
CLIENT AGE RANGE: 14-18, typically 16
COST PER CLIENT PER DAY:
DIAGNOSTIC TYPES: Primary sex offending, including molestation, rape. Frequently concurrent ADHD, dysthymia, conduct disorder/oppositional disorder (~75%), substance abuse (mostly alcohol & marijuana), sociopathy.
DIAGNOSTIC OUTCOME DIFFERENTIALS: IQ <80 makes verbal processing difficult, any home support improves outcome.

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: Residential full-time (5 days): minimum of 10 months, average of 11 months dependent on home placement. Daily school, physical education, Adventure Based Counselling (1 high element 4-5 hours per day), daily domestic duties; weekly individual therapy, psychotherapy group, and drama therapy; 5 day expedition every month.
INDIVIDUAL vs GROUP APPROACHES: Primarily group focus with supplementary 1:1. Emphasis is on group regulation of behaviour, consequences in group, positive peer culture. Weekly individual and group psychotherapy by consulting psychologist.
FAMILY / PARENT THERAPY: Family meeting with primary counsellors (dependent on travel/availability) at least once per month, more frequently where victim remains at home or there are significant family issues.
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): 1:1 weekly, grief/gender/psychotherapy group, drama therapy group weekly, school, physical education,
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: Weekly case review and milieu analysis, progress on level system is reviewed weekly.

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: Sex offending is a disorder of intimacy and empathy, positive peer experience is the best way to teach and correct these.
THEORETICAL MODELS: Behavioural, Cognitive-behavioural, work books and personal development projects.
RANGE OF THERAPEUTIC INTERVENTION TYPES: 1:1, family therapy, multi-modal group therapies.
SPECIFIC THERAPEUTIC FACTORS: inter-personal learning, group cohesion, community, natural consequences, consistency and immediacy of staff responses.

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: Mental Status Exam & intake interview, MMPI-A, complete behavioural, cognitive-behavioural and family analysis of sex offending.
NON-CLINICAL: Peer relationship patterns assessed through adventure activities.

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: Sessional hand-overs, level system reinforces behaviour change (linked to privileges such as w/e leave).
POST-PROGRAM TRANSFER METHODS: Weekly review sessions with Court Services Worker, toll-free phone number that clients can call program anytime following discharge,
FOLLOW-UP METHODS & TIME FRAME: Booster groups weeks/months post-discharge.

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: Repeated measures design at 8 week intervals; pre and post program.
MEASURES USED: MMPI-A, Beck Depression Inventory, Tennessee Self-concept Scale, 'sensation seeking scale'
FOLLOW-UP EVALUATION: Anecdotal, regular follow-up with Court Services Worker
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: Client progress, evaluation of program
CLINICAL UTILITY OF DATA: High
ANALYSIS OF DATA: Statistical analysis of difference between pre and post-program

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: Attached to Department of Psychology at Georgia College

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: 1:2, variable
LEVELS OF STAFFING: Primary Counsellors / Program Director / Consultant Psychologist (on call)
STAFF QUALIFICATIONS: Primary Counsellor: usually Masters level, Program Director: at least Masters, Consultant: PhD.
STAFF TRAINING IN THERAPY: Basic qualification training (Bachelor degree), Project Adventure training.
SUPERVISION STRUCTURES: Consultant Psychologist provides group supervision and is available on call.
INTERNAL STAFF TRAINING PROGRAMS: Project Adventure training programs.
MAJOR PERCEIVED STAFF TRAINING NEEDS: At least Bachelor degree and Adventure Based Counselling training

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION:
CLINICAL BACKGROUND TRAINING / ADVENTURE THERAPY TRAINING:
OTHER:

KEY STRENGTHS OF PROGRAM

- effective treatment / rehabilitation in the least restrictive environment
- use of Adventure Based Counselling
- peer initiated group sessions, peers assigning logical consequences for inappropriate behaviour

PROGRAM LIMITATIONS

- ?

KEY PROGRAM FEATURES

- Adventure Based Counselling used from site where national training occurs
- empathy training
- level system
- group consequences
- employment for higher level trained therapists

CONCLUSIONS

- this is an extremely difficult client population to treat because of the degree of sociopathy.

PROGRAM 8

PROGRAM NAME: Inner Harbour Hospital

CONTACT PERSON: Ron Scroggy / Jay Mcleod

ADDRESS & CON TACT DETAILS: 4685 Dorsett Shoals Rd, Douglasville, GA 30135, USA

Phone: 770-942-2391 Fax: 770-489-0406

AUSPICE ORGANISATION: Inner Harbour Hospital, Inc.

FUNDING&/OR FEE STATUS: non-profit, private. Clients are means tested upon referral and flexible fee re-payment is offered.

SUMMARY DESCRIPTION

A large, semi-isolated facility offering a full clinical and therapeutic range of secure in-patient, open residential programs, transitional housing and out-patient mental health services for children, adolescents and families. A strong, integrative experiential therapy approach runs throughout all aspects of all programs. A broad range of adventure and other activities is offered on a site which has over 100 acres of Forrest and a lake, while extended overnight expeditions are run in local areas.

PROGRAM PARAMETERS

PROGRAM AIMS: to offer a comprehensive range of treatment for long-term, seriously disturbed children, adolescents and families who may have had unsuccessful treatment by conventional services.
PROGRAM PHILOSOPHY: long-term treatment of psychiatric disorders utilizing experiential therapy approaches in all aspects of treatment, with the aim of assisting identity formation by developing meaning through experiential metaphor.
DESCRIPTION OF TYPE(S) OF PROGRAM: separate male and female (10-17): acute secure psychiatric in-patient, open residential units, transitional housing and full range of out-patient treatment services. Child (6-8) residential services. Dual-diagnosis and juvenile court-ordered treatment program. Every service includes a multi-modal group therapy and school program based on principles of experiential therapy.
NUMBER OF CLIENTS:
COST PER CLIENT DAY: residential: ~ $US500/day (compared with ~$US1,000 for traditional hospitalisation)
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: multi-disciplinary teams and sessional consultants including, licenced counsellors, psychologists, social workers, psychiatrists, nurses, recreation therapists.
NUMBER OF DAYS PER PROGRAM: dependent on client need, typically clients are admitted for assessment
in the secure in-patient unit, then progress to residential unit, transitional housing and out-patient treatment.
TYPES OF ACTIVITIES UNDERTAKEN & DAYS FOR EACH: numerous; conventional group and individual therapies, adventure therapy (initiatives, ropes courses, climbing, abseiling), wilderness therapy expeditions, drama and movement therapies, art therapy, horticulture therapy, etc. all based on principles of experiential therapy.
OTHER THERAPY TYPES: out-patient therapies; family and individual therapy.

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: mostly from insurance companies; managed care, other treatment services, word of mouth.
REFERRAL MECHANISMS: approval granted by insurer (managed care), client and family makes site visit, assessment admission arranged and documentation from other professionals compiled.
RESTRICTIONS TO ACCESS: extreme violence, substance dependence as primary diagnosis (de-tox needs to be done prior), borderline intelligence.
SUPPORT &/OR AUTHORITY ORGANISATIONS: Inner Harbour Hospital Inc.
CLIENT AGE RANGE: 6-8, 10-17
DIAGNOSTIC TYPES: all and any
DIAGNOSTIC OUTCOME DIFFERENTIALS: greater intelligence increases the client's understanding of group process, Conduct Disorder responds well with concrete experiences, drug and alcohol abusers are difficult to motivate.

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: multi-modal, full-time group therapy program with fortnightly to monthly wilderness therapy expeditions
INDIVIDUAL vs GROUP APPROACHES: most emphasis is on group process, individual counselling is offered if there are crises or disclosure of significant issues. 'Vision Quest' (1-2 night solo) involves a 1:1 experiential activity (eg. An element on the climbing tower that the client chooses)
FAMILY / PARENT THERAPY: traditional family therapy and multi-family groups, plus family ropes course.
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): multi-modal group and family therapy supplemented by ad hoc individual therapy.
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: weekly case review, progress notes, therapy

session hand-over documentation.

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: eclectic, experiential, humanistic; creation of an initiating experience which provides a tangible therapeutic metaphor.
THEORETICAL MODELS: eclectic
RANGE OF THERAPEUTIC INTERVENTION TYPES: full range, multi-modal group approaches
SPECIFIC THERAPEUTIC FACTORS: tangible nature of experience which creates disequilibrium, risk, danger, 'newness', focus on issues, questioning, achievement.

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: full range of diagnostic and psychological assessments from interview, group, psychometric, etc. Full-time psychometrist screens all clients upon admission on range of clinical and diagnostic measures.
NON-CLINICAL: living skill and physical ability

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: ???? counsellor shifts?
POST-PROGRAM TRANSFER METHODS: transitional housing program aimed at application of life skills
FOLLOW-UP METHODS & TIME FRAME: open, on needs basis through out-patient services

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: N/A
MEASURES USED: client satisfaction ????
FOLLOW-UP EVALUATION: ????
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: full-time psychometrist screens all clients in clinical and diagnostic areas.
CLINICAL UTILITY OF DATA: psychometric screening guides treatment planning.
ANALYSIS OF DATA: only on individual basis

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: graduate research projects on ad hoc basis

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: maximum of 10 adolescents in any group, maximum ratio is 1:6, usual group is 6 adolescents to 1 staff. During adventure therapy 3-4:12 (maximum), typically 3:8
LEVELS OF STAFFING: Assistant counsellor -> direct care counsellor -> therapist -> treatment co-ordinator -> program co-ordinator.
STAFF QUALIFICATIONS: Direct care counsellor: at least Bachelors degree, therapist/treatment co-ordinator: Masters degree.
STAFF TRAINING IN THERAPY: varied
SUPERVISION STRUCTURES: initial staff role involves direct supervision for stipulated number of hours, here specific skills are developed and on-going skill development program tailored for individual staff.
INTERNAL STAFF TRAINING PROGRAMS: 2 full-time staff development officers; in-house wilderness first-aid, crisis intervention, experiential therapy training for all staff (inc. Ropes course, climbing, etc.), anger management, risk management. Monthly skills training in group process.
MAJOR PERCEIVED STAFF TRAINING NEEDS: eclecticism

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION: committed to Association of Experiential Education standards, profession needs firmer program accreditation standards.
CLINICAL BACKGROUND TRAINING / ADVENTURE THERAPY TRAINING: minimal understanding of clinical assessment, teams need to have an appropriate range of therapy skills.
OTHER: profession needs greater unification, mandatory supervised experience in basic skills eg. Group facilitation which leads to certification of practitioners.

KEY STRENGTHS OF PROGRAM

- full range of all levels of mental health treatment with good follow-up resources
- high standards of clinical consultation and supervision, and practice
- clear, uniform therapeutic paradigm
- excellent resources and facilities appears to cover all clinical needs
- flexible and broad range of wilderness therapy intervention options

PROGRAM LIMITATIONS

- currently there is a need to strengthen experiential therapy approach across all areas of all programs
- older staff need re-orienting and re-motivation (made difficult by size of service/staff), difficulty in empowering direct care staff

KEY PROGRAM FEATURES

- broad range of therapeutic programs for both children and adolescents

CONCLUSIONS

- underscores the importance of maintaining contact with the community for integration
- week-end programs in the community would continue change, ie. Support groups. Community service projects are invaluable in transferring therapeutic changes.

PROGRAM 9

PROGRAM NAME: Three Springs Residential Treatment Program

CONTACT PERSON: Jim Chrietzberg / Robyn Warner

ADDRESS & CON TACT DETAILS: PO Box 20, Trenton, Alabama 35774, USA

Phone: 704-883-8889 Fax: 205-880-9569

AUSPICE ORGANISATION: Three Springs Inc.

FUNDING&/OR FEE STATUS: private, for profit, full fee paying: 10% of clients covered by insurance, 9 clients state sponsored

SUMMARY DESCRIPTION

Medium sized, semi-isolated, long-term therapeutic wilderness camping, state licenced treatment program for male and female (separate) adolescents and pre-adolescents which combines conventional individual and group therapy with adventure therapy and wilderness expedition based therapy. Parents are involved through weekend parent wilderness therapy expeditions and monthly family case conferences.

PROGRAM PARAMETERS

PROGRAM AIMS: To provide effective treatment for adolescents with treatment resistant Severe Emotional Disturbance (SED) using adventure, wilderness and experiential therapies integrated with conventional psychological/psychiatric treatments.
PROGRAM PHILOSOPHY: Mission Statement: "The mission of this company is the healing and restoration of children and their families. Every resource at our disposal, be it financial, human, or operational shall be directed towards this purpose. Our efforts will always be governed by the principles of honour, respect, teamwork, responsibility, accountability and honesty."
DESCRIPTION OF TYPE(S) OF PROGRAM: long-term (usually 12-15 month) residential program: 7 days per week, 12 months per year.
NUMBER OF CLIENTS: 72 male, 48 female, for 12-15 months
COST PER CLIENT PER DAY: US$120-140 per day (residential)
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: all staff have a minimum of bachelor degree in social sciences plus qualifications in technical, first-aid and safety skills.
NUMBER OF DAYS PER PROGRAM: 24 hours, 7 days per week, 12 months per year (usually 12-15 months admission)
TYPES OF ACTIVITIES UNDERTAKEN & DAYS FOR EACH: daily: 3 hours of school, 2 hours of adventure therapy (usually ropes/initiatives, also caving, climbing/abseiling), weekly adjunct group therapy (eg. Sex issues/abuse, drugs), occasional vocational group, domestic/daily living tasks. Wilderness expeditions; 3-4 (orientation) & 6-8 days (moving to 20 day trips twice yearly) of hiking, canoeing, cycle touring, combined with educational program. Short trip destinations are chosen and planned by clients
OTHER THERAPY TYPES: individual counselling as needed (avoided if possible) on issues such as anger management, trust, abuse or family issues; family therapy and parent support on needs basis, programed parent activities for 30-45 days per year.

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: mostly parent referred, word of mouth, private educational consultants (>half), private practising professionals, other treatment programs.
REFERRAL MECHANISMS: assessments are undertaken if there are no recent psychological tests, up to a 90 day assessment period at commencement of the program.
RESTRICTIONS TO ACCESS: Severe violence, IQ<85, acute psychiatric disturbance, active eating disorder, extreme substance abuse. Will take borderline personality disorder.
SUPPORT &/OR AUTHORITY ORGANISATIONS: none
CLIENT AGE RANGE: 10-17, 15 typical, males tend to be younger than females. Male groups are usually clustered 10-14, 13-15, 16-18 years of age, female groups are mixed in age.
DIAGNOSTIC TYPES: sexual abuse, substance abuse, SED, generally treatment resistant clients

DIAGNOSTIC OUTCOME DIFFERENTIALS: dependent on level of functioning of the group, good outcomes with borderline personality disorder, conduct disorder/oppositional defiant disorder (if spread out in groups) responds very well but require longer treatment, low motivated/low self-esteem clients do particularly well, sociopathic clients take significantly longer and require regular individual and parent therapy.

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: Week-day program involves routine groups, week-end periods are less structured and are devoted to domestic needs and wilderness camping to increase outdoor skills, wilderness expeditions are planned on a needs basis.
INDIVIDUAL vs GROUP APPROACHES: Emphasis is on peer group learning as much as possible.
FAMILY / PARENT THERAPY: Parent counselling/family therapy monthly, 2 family wilderness therapy expeditions.
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): concurrent individual counselling on needs basis, parent/family monthly
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: Treatment team case review weekly.

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: - see 'Creed' -
THEORETICAL MODELS: W. Glasser's Reality Therapy, Cognitive-behavioural theory, Adventure Based Counselling processing methods (small group de-briefing).
RANGE OF THERAPEUTIC INTERVENTION TYPES: Adventure and Wilderness Therapy, milieu therapy, equestrian therapy, life skills groups (including sexuality issues, drug & alcohol issues),
SPECIFIC THERAPEUTIC FACTORS: Fun/excitement/enthusiasm, teaching of creativity, structure, confrontation with accountability, conflict resolution, acknowledgement of achievement by ceremony, family work. Adventure and Wilderness Therapy is most powerful in utilising these factors.

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: Routine psychiatric, psycho-social, psychometric, family, medical assessment upon admission and during assessment phase (up to 90 days)
NON-CLINICAL: Educational assessment upon admission.

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: Same counsellor for 3-4 days straight, meeting with family worker weekly. Treatment team meets weekly for case review.
POST-PROGRAM TRANSFER METHODS: After-care program, phone contact with significant professionals; family education re: program strategies and processes (eg. Nightly meetings, 'huddles') monthly over week-ends (1-2 nights). Optional return to program for up to 2 week interval if needed.
FOLLOW-UP METHODS & TIME FRAME: Out-patient counselling: individual and family on needs basis.

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: intake: full clinical assessment; discharge conference: review treatment plan and progress made.
MEASURES USED: Psychometric testing if appropriate or not previously done.
FOLLOW-UP EVALUATION: phone call survey, including parent satisfaction
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: clinical use only
CLINICAL UTILITY OF DATA: excellent
ANALYSIS OF DATA: none

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: open to external (eg. University) research projects

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: usually 2:10 depending on need, One Primary counsellor and one assistant per group.
LEVELS OF STAFFING: Counsellor 1 (bachelor degree), Counsellor 2 (primary, bachelor degree), Counsellor 3 (roving assistant), Counsellor 4 (supervises several lower level counsellors), Supervisor 1 (supervises all counsellor of that program, Supervisor 2 (evaluation, planning, program development, admissions).
STAFF QUALIFICATIONS: Minimum: bachelor degree (recreation, BA, BSci. etc.)Basic training: 4 day Project Adventure equivalent training, ropes course competency, ropes internship, counselling training, in-house Wilderness First-aid, aggression management.
STAFF TRAINING IN THERAPY: 30 day orientation with options eg. Creative group therapy, stress management, etc.
SUPERVISION STRUCTURES: 30 days directly supervised orientation, treatment team meetings.
INTERNAL STAFF TRAINING PROGRAMS: Adventure therapy training is all in-house (Jim Chrietzberg)
MAJOR PERCEIVED STAFF TRAINING NEEDS: experience with group dynamics, how to process (de-brief)and guide groups.

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION: greater networking need.
CLINICAL BACKGROUND TRAINING / ADVENTURE THERAPY TRAINING: Difference in therapeutic paradigm with consultant psychiatrist.
OTHER: Staff at all levels need to have a career path structure and career development support. Significant benefit in promoting senior supervisors and managers from the counsellor level.

KEY STRENGTHS OF PROGRAM

- holism, eclecticism and comprehensiveness of treatment approach which is well integrated through sound practice structures.
- ability to be replicated elsewhere
- high quality staff, high staff morale, with senior staff having experience at lower levels
- having resources to provide flexibility in program.

PROGRAM LIMITATIONS

- risk of 'burnout' and consequent staff attrition. High case load on family workers, adventure therapy staff have high demand (need more staff).
- physical resources could be improved (eg camp sites)
- stronger in-house training
- lack of formal evaluation

KEY PROGRAM FEATURES

- Strong and well structured program which is highly consistent at both the client level and staff supervision/management level.
- well integrated educational, life/living skill and therapeutic program which comprehensively attends to a broad range of client needs at all stages

- holistic approach and place of wilderness and adventure therapy components form the base of therapeutic model

CONCLUSIONS

- staff leadership in groups is of great importance to ensure a therapeutic milieu and importantly high morale
- program philosophy needs to be consistently upheld throughout all levels of staffing.

PROGRAM 10

PROGRAM NAME: Colorado Outward Bound School - Survivors of Violence (SOV) Program

CONTACT PERSON: Sian Hauver

ADDRESS & CONTACT DETAILS: 945 Pennsylvania St., Denver, Colorado 80203 USA

Phone: 303-831-6975 Fax: 303-831-6987 Email: citin@ud.edu

AUSPICE ORGANISATION: Colorado Outward Bound School

FUNDING&/OR FEE STATUS: private fees, fee assistance available

SUMMARY DESCRIPTION

Adjunctive wilderness-adventure therapy for the enhancement of the treatment of survivors of violence including sexual assault. Programs are tailored for referring agencies based around a short-term format formula. In addition, Colorado Outward Bound School offers a range of tailored mental health programs for drug and alcohol dependence, cancer survivors, & clients with physical disabilities including multiple sclerosis and brain injury.

PROGRAM PARAMETERS

PROGRAM AIMS: To address issues surrounding violence and sexual assault such as managing fear, developing trust and using peer support as a means of accelerating treatment and promoting recovery. This is achieved by experiential methods which allow clients to consolidate strategies for coping with fear and related problems.

PROGRAM PHILOSOPHY: Outward Bound Philosophy: "To Serve, to Strive and Not to Yield". Mission of OB: to enhance individual character, promote self-discovery and challenge students to cultivate self-reliance, leadership, fitness and compassion and service through wilderness education.

DESCRIPTION OF TYPE(S) OF PROGRAM: A range of tailored programs for mental health agencies utilising a combination of basecamp and adventure therapy interventions with short or longer term wilderness expeditions.

NUMBER OF CLIENTS: dependent on referring agency.

COST PER CLIENT PER DAY: ~US$150 (residential)
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: Outward Bound instructors with additional qualifications in social sciences (bachelors degree) or mental health (pursuing masters degree)
NUMBER OF DAYS PER PROGRAM: variable, typically 3 over a week-end (for accessibility)
TYPES OF ACTIVITIES UNDERTAKEN & DAYS FOR EACH: group initiatives, ropes/challenge course, climbing/abseiling, peak accent, solo.
OTHER THERAPY TYPES: usually provided by referring mental health agency

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: Usually sexual assault and related counselling services (public and private)
REFERRAL MECHANISMS: Agency staff negotiate course type and aims and engage clients.
RESTRICTIONS TO ACCESS: Generally, clients have had significant counselling prior to attending and are in the final stages of treatment. Clients will not be accepted if they have a low functioning borderline personality disorder, actively psychotic or suicidal, have major unaddressed/unresolved issues, are not willing for OB staff to discuss their case with their therapist.
SUPPORT &/OR AUTHORITY ORGANISATIONS: none
CLIENT AGE RANGE: any age, typically young adult, not usually less than 16
DIAGNOSTIC TYPES: primarily survivor of sexual or physical assault; PTSD, personality disorder, depression, suicidal ideation, substance abuse.
DIAGNOSTIC OUTCOME DIFFERENTIALS: - see above -

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: 3-5 days: group initiatives, ropes and challenge course, peak accent, Sunday: solo and high ropes course
INDIVIDUAL vs GROUP APPROACHES: primarily group
FAMILY / PARENT THERAPY: none unless dictated and offered by referring agency.
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): typically significant previous individual and/or group counselling and subsequent counselling through referring agency.
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: Agency therapy staff attends entire OB course and provides follow-up counselling based on outcomes of program, or hands-over information to other respective counsellors.

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: Experiencing fear in vivo with the opportunity to work through, cope and succeed in spite of it in a supportive social milieu provides a major essential therapeutic step and a powerful reference contradicting previous response patterns.
THEORETICAL MODELS: Experiential education
RANGE OF THERAPEUTIC INTERVENTION TYPES: Adventure and wilderness activities.
SPECIFIC THERAPEUTIC FACTORS: Exposure to fear in a supportive group with the opportunity to develop and consolidate a functional pattern of responses.

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: Done by referring agency, including medicals, if open enrolment, interview is done by OB staff and information is collected from primary therapist.
NON-CLINICAL: Individual coping and fear responses in addition to social skills are assessed throughout all activities and used to guide interventions and feedback to agency.

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: Briefing and de-briefing sessions used to process each

activity.
POST-PROGRAM TRANSFER METHODS: Agency staff who attends program counsel clients post program or handover information to clients' counsellor.
FOLLOW-UP METHODS & TIME FRAME: immediate, up to several weeks dependent on agency.

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: none
MEASURES USED: none
FOLLOW-UP EVALUATION: none, except as per agency protocols
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: n/a
CLINICAL UTILITY OF DATA: n/a
ANALYSIS OF DATA: n/a

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: several finished and on-going research projects

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: 2 OB staff and 1-2 agency staff per group (up to 8-12 clients)
LEVELS OF STAFFING: Direct care: Program Director, Program Instructor, Agency Therapist
STAFF QUALIFICATIONS: Standard OB technical, first-aid and risk management, usually most staff pursue post-graduate mental health degrees.
STAFF TRAINING IN THERAPY: Generic training as part of post-graduate degree
SUPERVISION STRUCTURES: Program Director directly supervises program instructor in the field and de-briefs post-program.
INTERNAL STAFF TRAINING PROGRAMS: Wilderness Therapy Practicum for mental health professionals is a 10 day (residential) experiential program covering wilderness and adventure therapy activities and processing methods.
MAJOR PERCEIVED STAFF TRAINING NEEDS: Group facilitation skills.

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION: Professional networking needs significant improvement, but certification of practitioners may not enhance standards of practice (due to lack of strict entrance criteria), and may limit the unique contribution that experiential therapies can offer by limiting who can practise. Supervision of the highest level and accreditation of programs is most likely to ensure highest standards and development of the profession.
CLINICAL BACKGROUND TRAINING / ADVENTURE THERAPY TRAINING: Ideally would be an integrated or joint graduate training as part of university degree.
OTHER: Cross-training is ideal that includes holistic models that incorporate notions of psycho-pathology with a sound understanding of group processes and milieu.

KEY STRENGTHS OF PROGRAM

- linked to long established outdoor education school
- one of the earliest pioneer in contemporary wilderness-adventure therapy programs
- flexibility to employ experienced therapeutic staff sessionally thus retaining skills
- role in overall treatment process is realistic and complimentary to other adjunctive therapies, integration with other treating agencies is well developed through comprehensive protocols.

PROGRAM LIMITATIONS

- follow-up and post-program integration is dependent on agencies commitment and understanding of the transfer process and capacity to implement it.
- program is limited in scope (primarily through economic and therefore time restrictions) to remain an adjunctive intervention.

KEY PROGRAM FEATURES

- pioneering and innovative service which can draw on a larger generalist outdoor education paradigm
- developed, and open to the public Wilderness Therapy Practicum training

CONCLUSIONS

- courses developed around specific client types can offer highly effective complimentary adjunctive therapy.

PROGRAM 11

PROGRAM NAME: Santa Fe Mountain Centre

CONTACT PERSON: Jim Beer, Executive Director

ADDRESS & CON TACT DETAILS: Route 4 Box 34C, Santa Fe New Mexico 87501 USA

Phone: 505-983-6158 Fax: 505-983-0460

AUSPICE ORGANISATION: none

FUNDING&/OR FEE STATUS: non-profit, typically contract to agency

SUMMARY DESCRIPTION

Service which offers a range of tailored experiential programs utilizing conventional wilderness and adventure activities and community oriented activities to empower and assist socially disadvantaged and mental health clients. The Centre has a strong community emphasis and offers many innovative programs focusing on multi-culturalism and social diversity.

PROGRAM PARAMETERS

PROGRAM AIMS: Experiential programming for personal development and community building.
PROGRAM PHILOSOPHY: To provide activity to clients to have new experiences of themselves and others through 'play' and challenge. This is done with clients' families and significant others (including workers) in a fashion that is tailored to client need. It is assumed that it is vital that clients have an audience to affirm their new self.

DESCRIPTION OF TYPE(S) OF PROGRAM: Programs are tailored through negotiation with agencies around experiential activities.
NUMBER OF CLIENTS: variable, maximum 100, annually 1500-2000 clients (10 programs)
COST PER CLIENT PER DAY: US$15 per day, US$140 per day for overnight activities.
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: 12 full-time, ~ 10-20 seasonal, qualifications: varied, typically bachelor degrees, minimum technical/safety/first-aid. Staff are assessed for employment on an individual basis with an emphasis on the value of ethnic and community background and experience.
NUMBER OF DAYS PER PROGRAM: variable
TYPES OF ACTIVITIES UNDERTAKEN & DAYS FOR EACH: length from 1-17 days, some one day per week followed by long expedition. Activities include initiatives, ropes, climbing (day activities); back-packing, canyon descents, peak ascents, white-water rafting, community service, indigenous ceremonies, art and music.
OTHER THERAPY TYPES: informal group sessions, informal 1:1 goal setting.

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: Health Management Organisations (HMOs), state agencies: adjudicated youth (institutionalised youth agencies), native American agencies (youth), department of health: homosexual males, and females at risk of HIV & AIDS, schools, survivors of abuse (funding by crime victims agencies)
REFERRAL MECHANISMS: clients recruited by via agency, schools, drug & alcohol treatment centres, word-of-mouth.
RESTRICTIONS TO ACCESS: Severe anger/violence problems, physical restriction, acute psychiatric disturbance, all assessed on a case by case basis.
SUPPORT &/OR AUTHORITY ORGANISATIONS: none
CLIENT AGE RANGE: 7 to geriatric, average 15-16.
CLIENT / DIAGNOSTIC TYPES: any, dependent upon agency client target groups, include: native Americans, HIV/AIDS, repeat offending drunk-drivers, community building, youth corrections, victims of crime.
DIAGNOSTIC OUTCOME DIFFERENTIALS: diverse, participation needs to be voluntary, adolescents respond well, reserved individuals respond quickly (dependent on therapist?) but may take longer to engage initially.

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: mixture of one day sessions, extended wilderness expeditions and community activities as designed by clients and agency.
INDIVIDUAL vs GROUP APPROACHES: individual goal setting, group emphasised as a mini-community, supplementary individual input.
FAMILY / PARENT THERAPY: adjunctive as pre and post program and provided by agency.
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): as per agency, strongly encouraged by agencies.
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: Staff and family involvement post-program, letter writing to self in future, long-term follow-up sessions months and years later, community development activities and goal setting.

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: Empowerment of the individual and community through community orientated programs, using the affirmation and support of community and significant others to strengthen and validate therapeutic outcomes.
THEORETICAL MODELS: Systems theory, Michael White, narrative, Stephen Glenn (humanistic psychology), Adventure Based Counselling, multi-cultural education, indigenous experiential traditions.
RANGE OF THERAPEUTIC INTERVENTION TYPES: contemporary processing techniques according to individual practitioner.

SPECIFIC THERAPEUTIC FACTORS: Novel context, playfulness and challenge, openness to difference, group and community context, inter-dependence of relationships for group and individual success, spiritual connection with wilderness (ie. Transcendence), freedom from distraction.

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: Discussion of clients with referring agencies.
NON-CLINICAL: Screening checklist by the Centre, 3 days of day experiential activities to determine group/individual functioning.

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: briefing/de-briefing, same staff throughout program.
POST-PROGRAM TRANSFER METHODS: community development activities planned during program followed by a post-program activity held in the community which links back to original goal(s) for the program.
FOLLOW-UP METHODS & TIME FRAME: months and years follow-up contact.

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: post-program
MEASURES USED: none
FOLLOW-UP EVALUATION: agencies are surveyed post-program, clients who have done program 3 or more times are also surveyed on issues of personal change, life circumstances, consumer satisfaction, etc.
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: consumer satisfaction, social and self changes
CLINICAL UTILITY OF DATA: none
ANALYSIS OF DATA: none

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: external university research projects

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: 1:4-6, groups typically 8-12 clients with 2-3 staff dependent on activity
LEVELS OF STAFFING: instructors/counsellors, project managers
STAFF QUALIFICATIONS: proficiency system in technical skills, ad hoc assessment of each staff team to ensure appropriate range of therapeutic skills
STAFF TRAINING IN THERAPY: dependent on individual practitioner
SUPERVISION STRUCTURES: peer supervision feedback, individual supervision for first 2-3 months, post-program peer evaluation.
INTERNAL STAFF TRAINING PROGRAMS: regular schedule of in-house training based on greatest perceived need.
MAJOR PERCEIVED STAFF TRAINING NEEDS: group dynamics, integrating technical activity in a therapeutic way, ability to work with different cultures, facilitation skills.

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION: accreditation of programs allows greater flexibility, licencing of practitioners can exclude a range of valuable/skilled practitioners. Composition of skills/qualifications within the staff team is critical - having the correct range of skills.
CLINICAL BACKGROUND TRAINING / ADVENTURE THERAPY TRAINING: need to be open to different professional backgrounds and experiences as being very relevant, eg. Multi-cultural skills.
OTHER: need to expend the definition of "experiential" to involve different cultural definitions. Development of the profession would be best achieved through: better professional networks, professional

identity (broad rather than narrow), better develop an understanding of experiential learning, ie. Reduce the division between notions of 'healer' and 'healed' .

KEY STRENGTHS OF PROGRAM

- non-profit, free-standing, thus increasing flexibility in service models and clients served
- long history of innovation (since 1971)
- geographical proximity to the diversity of culture within the community
- able to address issues of culture and class at the community level
- diversity of program types

PROGRAM LIMITATIONS

- being tied to shrinking funding that is constraining, eg. Preference to work with youth communities rather than 'problem youth'
- rather work for programs driven by community rather then based on activity.
- difficulty in planning long-term because of funding uncertainties

KEY PROGRAM FEATURES

- community building focus, adaptability to local ethnic and cultural needs, flexible and collaborative

CONCLUSIONS

- importance of community development and adaptation of programs to community need, community integration.
- prevailing political context is highly interventionist and prescriptive, ie. a culture of 'helping' which can dis-empower clients

PROGRAM 12

PROGRAM NAME: Anasazi Foundation

CONTACT PERSON: Larry Olsen, Ezekiel Sanchez, Paul Newman

ADDRESS & CONTACT DETAILS: 1424 S. Stapley Rd, Mesa, Arizona 85204, USA

Phone: 1800-678-3445 / 602-892-7403 Fax: 602-892-6701

AUSPICE ORGANISATION: none

FUNDING&/OR FEE STATUS: non-profit, health insurance rebatable, licenced mental health service. Scholarships are available for economically disadvantaged clients.

SUMMARY DESCRIPTION

An independent, 60 day wilderness expedition based treatment program for adolescents with mental health and family problems based around native American wilderness survival

skills training (based on a book by Larry Olsen 1967), native American traditions and spiritual teachings of the Church of Later Day Saints (Mormon Church). Emphasis is given to the family and family relationships as primary in the treatment process, hence concurrent family/parent work culminates in a 3 day family wilderness solo and long-term family based follow-up.

PROGRAM PARAMETERS

PROGRAM AIMS: To improve adolescents' lives by working with adolescent and family, not to be outcome orientated, and use wilderness expeditions to provide learning opportunities.
PROGRAM PHILOSOPHY: To provide natural peer experiences, where the wilderness sets the agenda, not therapy, hence the approach is theoretical.
DESCRIPTION OF TYPE(S) OF PROGRAM: 8 weeks (56 days) mobile wilderness expeditions of 7 days interval which allows re-supply and staff change over.
NUMBER OF CLIENTS: maximum 50
COST PER CLIENT PER DAY: US$15,000 per client = US$270 per day (residential). Scholarship covers ~20%, insurance usually 50%
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: 20 staff, direct care staff usually completing undergraduate degree, case managers usually masters level in counselling or related field.
NUMBER OF DAYS PER PROGRAM: 56 full-time residential
TYPES OF ACTIVITIES UNDERTAKEN & DAYS FOR EACH: de-emphasize an agenda, unstructured 8 week long wilderness expeditions. Survival training (eg. Native tool making is used as a problem solving experience and to improve comfort and adaptability to the environment.
OTHER THERAPY TYPES: 1:1 counselling once weekly including weekly case conference and family feedback

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: word of mouth from previous clients/family is largest source, secondarily other professionals.
REFERRAL MECHANISMS: ~60% through Mormon Church connections, phone screening, family visit, adolescent interview, admission.
RESTRICTIONS TO ACCESS: geographic distance, history of violence(ie. using weapons, assaultive behaviour)
SUPPORT &/OR AUTHORITY ORGANISATIONS: Church of Later Day Saints Social Services assist individual clients with financial aid.
CLIENT AGE RANGE: 12-18, typically 15-17, some over 18 self-referred. No co-ed. groups but ~60% males and 40% females. Groups are streamed according to age bracket where possible.
DIAGNOSTIC TYPES: any behavioural diagnosis, including depressed & suicidal, oppositional-defiant (majority of clients), eating disorders, substance abuse, some court ordered delinquent, some with adoption issues.
DIAGNOSTIC OUTCOME DIFFERENTIALS: older (17+) respond quicker, females respond quicker, families that are intact with a spiritual faith, short-term substance abuse (long term history more difficult)

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: week by week mobile expedition. Weekly cycles include staff change-over.
INDIVIDUAL vs GROUP APPROACHES: mostly group focus, 1:1 session with case manager each week, limited 1:1 counselling encouraged with direct care staff.
FAMILY / PARENT THERAPY: seminars for parents (philosophy of parenting; ref. 'Arbinger', Terry

Warner) on weekly basis, weekly phone contact with parents by case manager, last 3 days of program is a family solo with the whole family on the trail.
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): occasional subsequent 1:1 counselling on needs basis
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: not applicable

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: the value of being self-sufficient is used to help clients to differentiate 'needs' from 'wants', empower individuals to help themselves through a simple and therapeutic experience of wilderness living at a stone age level. Values of personal agency, honesty and integrity are found through a re-ordering of priorities derived from wilderness experiences.
THEORETICAL MODELS: survival training through native American wilderness skills.
RANGE OF THERAPEUTIC INTERVENTION TYPES: not applicable
SPECIFIC THERAPEUTIC FACTORS: wilderness environment, peer group, peer comparison in a neutral setting, discovery of competency through skills.

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: none
NON-CLINICAL: none
Therapeutic history is not usually made available to direct care staff to avoid prejudice, case manager is only person to have previous mental health history.

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: daily progress notes (structured), 1 day per week change over day of staff where issues are handed over, 2-3 times per week "fire-side" discussion based on a theme such as honesty, spiritual issues, etc.
POST-PROGRAM TRANSFER METHODS: case manager calls once per week post-program for 3 months
FOLLOW-UP METHODS & TIME FRAME: first 3 months is a critical period. Over the first 6 months each client and family receives a news package with resources (eg newsletters), and a phone call once per month for 12 months.

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: pre-admission data and post-discharge questionnaire of the parents' perception of their children
MEASURES USED: questionnaire/survey
FOLLOW-UP EVALUATION: 300 out of 800 past participating families returned questionaries (1990-1995)
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: outcome based behaviour status according to the parents' perceptions.
CLINICAL UTILITY OF DATA: ?
ANALYSIS OF DATA: descriptive: 40% return to previous behaviours, 30% show no recurring problems, 25% have minor problems.

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: none

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: 3:7-10, prefer smaller ratios because of staff-client splitting, prefer 1:3 as a single unit.

LEVELS OF STAFFING: college students, week on, week off roster, case managers are masters trained (usually MSW)
STAFF QUALIFICATIONS: trail staff: undergrad students, case managers MSW
STAFF TRAINING IN THERAPY: internal training for direct care, internships for undergraduates as for their course requirements, case managers: generic professional training
SUPERVISION STRUCTURES: 1 per week interview with case manager
INTERNAL STAFF TRAINING PROGRAMS: ethics, program philosophy, wilderness technical, all staff attend 'Arbinger' parent seminars
MAJOR PERCEIVED STAFF TRAINING NEEDS: orientation to modelling appropriate relationships (as per 'Arbinger').

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION: support certification and training
CLINICAL BACKGROUND TRAINING / ADVENTURE THERAPY TRAINING: ?
OTHER: need to develop better tools for healing, need to gain greater universality ie. Insurance support

KEY STRENGTHS OF PROGRAM

- well resourced due to level of fees charged
- on-going wilderness program where clients remain in wilderness for extended period
- continuity of staffing (weekly roster)
- long operating history
- high level of parental involvement including family integrated component (3 day family solo)
- clear structure and unified approach
- long-term contact support with previous clients
- high profile founder (Larry Olsen, Ezekiel Sanchez)

PROGRAM LIMITATIONS

- need to compromise some areas for economic and licencing reasons, eg. Compromise a pure wilderness experience (staff have to supervise clients all night, etc.), need full-time nurse on staff
- would like to have less of a therapeutic agenda. Potential conflict regarding therapeutic versus spiritual approach
- not so suitable for non-intact families, or where parents are minimally involved

KEY PROGRAM FEATURES

- extensive, long-term wilderness expedition format
- well developed, systems and staffing structures
- client 'paced' treatment approach with family integration being overall objective

CONCLUSIONS

- wilderness expedition based treatment can be a viable mental health service with apparently good outcomes
- better outcomes with intact families and high level of parental involvement

PROGRAM 13

PROGRAM NAME: Aspen Youth Alternatives

CONTACT PERSON: Scott Shell / Karen Albrecht

ADDRESS & CON TACT DETAILS: PO Box 400, Loa, Utah, 84747, USA

Phone: 801-836-2090 Fax: 801-836-2040

AUSPICE ORGANISATION: Californian Health Systems, Aspen Achievement Academy

FUNDING&/OR FEE STATUS: for profit, negotiated Youth Corrections contract (from various states).

SUMMARY DESCRIPTION

An independent, 60 plus day wilderness expedition based program for adjudicated (court-sentenced) male and female adolescents, which uses a cyclical program based around native American wilderness living skills. Emphasis is given to developing pro-social skills and modifying behavioural problems such as anger and poor impulse control. Adaptation to wilderness living and survival skills forms the basis for therapeutic metaphor which is integrated with school cubiculum.

PROGRAM PARAMETERS

PROGRAM AIMS: treatment of young offenders / adjudicated youth
PROGRAM PHILOSOPHY: To facilitate opportunities for growth and change for clients through discipline with love.
DESCRIPTION OF TYPE(S) OF PROGRAM: Aspen youth alternatives has been running for 2 years and offers a cyclic program which is entirely wilderness based as an alternative to incarceration for adolescents who have been court sentenced. School cubiculum is highly integrated with the learning of survival skills and environmental knowledge which forms the basis of therapeutic metaphor. Week long cycles focus on different modes of transportation such as hand carts, while a level system of privileges reinforce pro-social behaviour change. Groups are of mixed sex.
NUMBER OF CLIENTS: ~32: 4 groups of 8
CLIENT AGE RANGE: 14-18, typically 15-16
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: total staff ~120 (40-50 EFT) field staff typically part way through undergraduate social/behavioural sciences degree who also hold wilderness technical skills.
NUMBER OF DAYS PER PROGRAM: dependent on client progress, typically 60
TYPES OF ACTIVITIES UNDERTAKEN & DAYS FOR EACH: backpacking with improvised pack and conventional pack, some ropes course and abseiling (summer), hand-cart pushing.
OTHER THERAPY TYPES: not applicable

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: court sentenced, youth detention centres from various state youth corrections services.

REFERRAL MECHANISMS: court service worker assigns client toa waiting list, Aspen selects appropriate client upon vacancy, screening interview arranged

RESTRICTIONS TO ACCESS: prefer behavioural problems, decline primary personality disorder, eating disorder, sociopathic traits

SUPPORT &/OR AUTHORITY ORGANISATIONS: none

COST PER CLIENT PER DAY: US$120 per day (residential)

DIAGNOSTIC TYPES: Primarily behavioural: ADHD, conduct disorder, sex offenders, antisocial behaviour, etc.

DIAGNOSTIC OUTCOME DIFFERENTIALS: better outcomes from older (16-18) males, those with family support and/or have their own children, those who have educational success.

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: typically 60 days in 1 week cycles (with staff change-over). Four different stages in an open group: 1) orientation/observation (~2 days), 2) survival skills phase, 3) team functioning, using hand-carts emphasising co-operation, 4) leadership phase including navigation, privileges, being a mentor for newer clients. Progression through each phase is dependent on co-operation and assistance from others in lower phases. Inter-dependence between phases was reported to be better using a closed group format.

INDIVIDUAL vs GROUP APPROACHES: group emphasis, importance on positive peer culture

FAMILY / PARENT THERAPY: weekly involvement with parents via telephone, workbook on parenting skills, parents attend graduation and 1-2 day debrief following a one overnight camp-out with adolescent.

ADJUNCTIVE THERAPY (previous/concurrent/subsequent): none

ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: not applicable

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: logical and natural consequences, the individual is innately healthy but needs to have positive behavioural encouragement, emphasis is on 'here-and-now' experiences rather than past experiences.

THEORETICAL MODELS: metaphor developed through survival skills which is also liked to school curricula, cognitive-behavioural concepts ans skills, reframing of behaviour.

RANGE OF THERAPEUTIC INTERVENTION TYPES: individualised treatment plan reviewed regularly: level system of privileges based around skill acquisition and school curricula, generic group counselling and group processing.

SPECIFIC THERAPEUTIC FACTORS: positive peer culture, examples of defined roles in a healthy eco-system, rites of passage of the wilderness experience, life history, success and completion, adaptation and harmony to and with the environment.

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: use of court reports and history in screening process

NON-CLINICAL: as evidenced through the course of the program in relation to behavioural problems, social skills, etc.

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: weekly phone call to parents on progress from the case manager, individualised treatment plan, field staff report daily to supervisor

POST-PROGRAM TRANSFER METHODS: supported placement upon return to school, liaise with parents and hand-over to referring case worker.

FOLLOW-UP METHODS & TIME FRAME: after care is a major priority

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: pre and post-program
MEASURES USED: measure of locus of control and self-concept, workers judgment of level of responsibility
FOLLOW-UP EVALUATION: 'trackers' follow client for up to 12 months assessing recidivism.
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: quality assurance, overall efficacy of program
CLINICAL UTILITY OF DATA: only massed statistical analyses
ANALYSIS OF DATA: statistical pre-post analyses

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: none

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: 2-3: 8
LEVELS OF STAFFING: 4 field staff levels plus internships (21 days) based on various criteria including an evaluation, field team manager (usually master level counsellor) who liaises with parents and case managers, visits group twice per week, field director oversees all groups.
STAFF QUALIFICATIONS: see above
STAFF TRAINING IN THERAPY: educational professional development 2 hours per week in-house
SUPERVISION STRUCTURES: twice daily radio check-in, weekly group supervision for field staff.
INTERNAL STAFF TRAINING PROGRAMS: induction training (1 week) focus on phases of program, technical & first-aid, crisis and aggression management program.
MAJOR PERCEIVED STAFF TRAINING NEEDS: 1) crisis management, 2) processing, 3) behaviour management in groups and wilderness environment.

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION: ?
CLINICAL BACKGROUND TRAINING / ADVENTURE THERAPY TRAINING: ?
OTHER: ?

KEY STRENGTHS OF PROGRAM

- clear, graduated structure which neatly integrates therapeutic, school and survival skills
- clear hierarchical supervision structures,
- creative use of environment eg. using hand-carts, improvised packs, etc.
- ability to select clients who will benefit and decline those less likely to.

PROGRAM LIMITATIONS

- constrained in being able to teach moral values (ie. religious ideas) which would enhance outcomes
- reliant on referring case worker to conduct follow-up and ensure transfer of outcomes
- minimal contact and involvement with families and parents.

KEY PROGRAM FEATURES

- integrated school cubiculum with wilderness skills, therapeutic metaphor and behavioural skills
- on-going wilderness expedition model maintains an impetus for change
- mixing both male and female offenders allows inter-gender issues to be addressed

CONCLUSIONS

- preferred sex ratio in groups is 3 females to 5 males, so females can role model appropriate behaviour
- mobile wilderness program appears to be a highly cost effective alternative to incarceration which may have significant rehabilitative benefits once returned to the community.

PROGRAM 14

PROGRAM NAME: Adventure Development

CONTACT PERSON: Colin Goldthorpe

ADDRESS & CON TACT DETAILS: Specialist Education Service, Public Trust Building, 442 Moray Place, Dunedin.

PO Box 5147, Dunedin, New Zealand. Phone: 03-477-8610 Fax: 03-479-0541

AUSPICE ORGANISATION: Special Education Service Otago

FUNDING&/OR FEE STATUS: non-profit, funded through regional health authority and the ministry of education to service 'youth at risk': those with drug & alcohol issues and their families.

SUMMARY DESCRIPTION

A multi-modal wilderness and adventure therapy program which combines individual and family therapy before and after a 9 day wilderness and adventure therapy group intervention. A high degree of flexibility in approach is tailored to individual need due to small group size and broad therapeutic training of staff.

PROGRAM PARAMETERS

PROGRAM AIMS: to assist clients to develop more control over their lives, over themselves (ie. autonomy), and to take increasing responsibility for self.
PROGRAM PHILOSOPHY: much reality is socially constructed, clients can develop ways of thinking which enable them to take over that process, become more intentional about constructing their reality.
DESCRIPTION OF TYPE(S) OF PROGRAM: 4 months of individual and family therapy followed by 9 day group wilderness and adventure therapy with 3 month individual and family follow-up.
NUMBER OF CLIENTS: 10-12 per group, minimum of 4 programs per day, maximum of 8 per year
COST PER CLIENT PER DAY: ????
STAFF NUMBERS/QUAL.S/EXPERIENCE/BACKGROUNDS: 10 staff, 5 staff on average per area. On during wilderness therapy 3 staff plus admin staff. Therapeutic staff are registered psychologists (educational or clinical) or masters level in counselling,
NUMBER OF DAYS PER PROGRAM: 2-3 months out-patient therapy, 9 days base camping/expeditioning, 3 months out-patient follow-up
TYPES OF ACTIVITIES UNDERTAKEN & DAYS FOR EACH: within 9 day Basecamp: combination of Project Adventure, high and low ropes course, group therapy, "reflection" (solo).

Typically 3-4 day expedition, 5-6 day base camp.
OTHER THERAPY TYPES: individual therapy (narrative/brief, just therapy, motivational interviewing, coping/CBT strategies, linguistic, possibility therapy) 10-15 sessions in total, 6-8 pre-trip. Family therapy 2-3 sessions pre-trip, 2-3 post-trip, including narrative, systems, just therapy.

CLIENT & SYSTEM CHARACTERISTICS

REFERRAL SOURCES: self and family referral, schools, youth justice, social welfare.
REFERRAL MECHANISMS: information sent to parents, written application, 2 way selection process.
RESTRICTIONS TO ACCESS: funding criteria: must have significant drug/alcohol use and/or other risk factors. Will take all forms of violence, moderate (contained) suicidal clients.
SUPPORT &/OR AUTHORITY ORGANISATIONS: Specialist Education Service
CLIENT AGE RANGE: 13-20, typically 13-18, average 14.8.
DIAGNOSTIC TYPES: Drug & alcohol, depression & suicidal, poor physical self-concept, sociopathic, ADHD, conduct disorder, family dysfunction, abuse (physical/sexual/emotional), learning disorders, impulse control problems, external locus of control.
DIAGNOSTIC OUTCOME DIFFERENTIALS: very good outcomes where clients behaviour , thoughts and emotions are related to their past and present environments, more difficult with those who have an underlying psychopathology unrelated to what has happened to them. ADHD, conduct disorder, family dysfunction are harder to achieve good outcomes, suicidal and depressed responds very well.

PROGRAM MODEL / FRAMEWORK

TIME FRAME DESIGN: 2-3 months individual & family therapy - 9 day wilderness and adventure therapy (the 'Journey') - 1-2 months follow-up individual and family therapy
INDIVIDUAL vs GROUP APPROACHES: during wilderness and adventure therapy: 2 individual 'check-in' sessions over 9 days, group as a major emphasis and support in client change. Ad hoc individual issues are dealt with through individual therapy.
FAMILY / PARENT THERAPY: pre and post wilderness and adventure therapy, ranging from teaching parenting skills to comprehensive family reconciliation work.
ADJUNCTIVE THERAPY (previous/concurrent/subsequent): - see pre/post individual and family therapy -
ADJUNCTIVE THERAPY INTEGRATION MECHANISMS: 1) pre-trip frames the 'Journey' as a time to reflect, place to experiment with change, acquire new skills, opportunity for congruence and risk-taking, 2) same therapists from individual & family therapy - wilderness and adventure therapy - follow-up therapy, 3) contract with client pre-trip about requirements for 'Journey', set goals for wilderness and adventure therapy, expectations for opportunities, front-loading challenges, log book, counsellor gets information regarding each client's goals, major issues, family concerns, etc. prior to and following the 'Journey'.

THERAPEUTIC PARADIGM

THERAPEUTIC PHILOSOPHY: change occurs when clients realise the control they have over the meanings they derive from experiences, they can take control over this meaning to choose more helpful constructions of experience. This impacts upon subsequent thoughts, feelings and behaviour.
THEORETICAL MODELS: Bandura Self-efficacy theory, constructivist models of social reality, action research and experiential learning. Developmental models eg. Erickson, systems theory and Eco-psychology.
RANGE OF THERAPEUTIC INTERVENTION TYPES: narrative, motivational, brief and just therapies selected according to client need in relation to each of their issues.
SPECIFIC THERAPEUTIC FACTORS: perspective of self from an interaction with the environment. Holism (individual/family/peer/school, and within the individual ie cognitive/affective/behavioural), systemic focus, cultural/ethnic/class/gender.

DIAGNOSTIC &/OR OTHER ASSESSMENTS

CLINICAL: AUDIT questionnaire (D&A), ????

NON-CLINICAL: - see evaluation -

INTEGRATION / TRANSFER / FOLLOW-UP

INTRA-PROGRAM INTEGRATION METHODS: coherent rationale integrating all program components, front-loading via problem task de-construction during activity briefing.
POST-PROGRAM TRANSFER METHODS: individual and family therapy use exceptions from their journey to change expectations and behavioural responses.
FOLLOW-UP METHODS & TIME FRAME: individual and family therapy, open contract available, 2-3 follow-up phone contacts, graduation 4-5 months post 'Journey'

EVALUATION METHODS

EVALUATION TIME FRAME DESIGN: pre and post program , External evaluation 1-2 months post program.
MEASURES USED: AUDIT questionnaire, interview with client by therapist co-constructing therapeutic stories, and undertaking self-evaluation.
FOLLOW-UP EVALUATION: External evaluation: structured interview with client re: outcomes and therapeutic process, questionnaire to referring agency, structured interview by phone call to parents or caregiver.
USE OF DATA / PURPOSE OF EVALUATION PROGRAM: monitor drug usage pre and post, evaluate efficacy of program, consumer satisfaction.
CLINICAL UTILITY OF DATA: high, practical
ANALYSIS OF DATA: Formal reports completed on each program for funder and program development by external evaluator and director.

RESEARCH ACTIVITIES

ADDITIONAL RESEARCH ACTIVITIES: previously 5-6 masters level academic project, currently selective post-graduate projects.

STAFFING & TRAINING NEEDS / ISSUES

STAFF TO CLIENT RATIOS: 3:12 (1:4), usually 1:3.5
LEVELS OF STAFFING: Program Director, Assistant Director, counsellors; team leader and co-leaders
STAFF QUALIFICATIONS: registered psychologist or masters level counsellor (occasionally masters level trainee under supervision).
STAFF TRAINING IN THERAPY: generic training as psychologist/counsellor, peer training in co-therapy.
SUPERVISION STRUCTURES: once every 2-3 weeks
INTERNAL STAFF TRAINING PROGRAMS: technical skills, Adventure Based Counselling is done externally and internally, individual and family therapy training, co-leadership including risk-management, group processing skills, etc. is done in-house.
MAJOR PERCEIVED STAFF TRAINING NEEDS: continuing development in the following: co-therapy, family therapy, outdoor technical skills, risk management, group development.

KEY PROFESSIONAL ISSUES

STANDARDS & ACCREDITATION: practitioners require a base mental health qualification. This ensures accountability through the base profession.
CLINICAL BACKGROUND TRAINING / ADVENTURE THERAPY TRAINING: essential. Quality in relationships with clients cannot be mandated - need a broad education.
OTHER: 1) accountability: protection of the rights of the client, need a regulating body (eg professional association, statutory board, etc.), 2) standards, training and supervision, 3) ethical issues: captive populations, use of stress, coercion to attend, 4) credibility: demonstrated outcomes via research including coherent rationales, 5) self-managing teams, co-leadership, 6) professional liability, occupational health & safety, sustainability.

KEY STRENGTHS OF PROGRAM

- non-mystical approach - empower clients to be self-helping
- training ans skills of staff: generic mental health professionals, in-house training, ie the capacity to apply flexible and analytic thinking to any situation, understanding complex issues hence flexible approach with clients
- coherent rationale integrates all elements of therapy into a whole, based on an on-going action research
- sound documentation of therapeutic processes and risk management decisions
- extensive open-ended follow-up

PROGRAM LIMITATIONS

- need more training in substance abuse and family therapy
- selection and evaluation procedures
  - need to recruit trained and qualified female and Maori staff
  - continual developmental phase of program improvement, especially eco-psychology, team systems, family therapy

KEY PROGRAM FEATURES

- highly trained staff
- commitment to on-going training
- documented, high level of positive outcomes
- program impacts on all domains of young person's life
- replaceability of outcomes in other regions with similar clients due to sound concepts, training and documentation

CONCLUSIONS

- highly trained staff can offer greater flexibility, continuity of care, and high clinical standards with good outcomes through relatively short-term intervention.

Treatment Effectiveness of

wat
wilderness adventure therapy®

A Comprehensive Evaluation

Dr. Simon J.R. Crisp
Clinical Adolescent
& Family Psychologist

Cindi Hinch
Research Consultant

neo psychology

programs / training / research

Authors

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Contents

Important Caution

There are an enormous variety of wilderness and adventure based programs with a wide range of formats, methods and staff skills. The results reported herein describe the outcomes from a specific, manualised psychological intervention. Therefore, these results should not be assumed to apply to other interventions, programs or treatments that may also use wilderness or adventure activities. The specific model of Wilderness Adventure Therapy evaluated here has been trailed and developed extensively for over a decade and a half using specific procedures involving client psychological assessment and selection, group composition, intake processes, psychological safety procedures, therapeutic group procedures, and so on. For this reason, these research results only apply to accredited Wilderness Adventure Therapy® programs that include the specific components and procedures as described in the practice guidelines thereof. Any other type of adventure program should present separate evaluation results based on data specifically drawn from that program.

What is Wilderness Adventure Therapy?

This document is a summary of key results from a more detailed report of a comprehensive evaluation of a therapeutic adventure-based intervention for adolescents and families termed "Wilderness Adventure Therapy" (WAT) by Crisp & Hinch (2004). The specific Wilderness Adventure Therapy model evaluated has been developed and researched over the last 12 years (Crisp, 2002a; 2001a; 1996; Crisp & Aunger, 1998; Crisp & O'Donnell, 1998).

The Wilderness Adventure Therapy® model of clinical treatment was first established as an integrated component of a full-time adolescent mental health day-program (BIP) for treating adolescents with severe psychological, behavioural and psychiatric problems at the Austin Hospital's Child & Adolescent Mental Health Service, Melbourne, between 1992 and 2000 (Crisp, O'Donnell, Kingston, Poot & Thomas, 2000). This model was developed to compliment conventional group therapies, including a manualised cognitive-behavioural group therapy program. Following the success of the multi-modal day-program in treating severe mental health problems both in the short term and up to 5 years following treatment (Crisp, 2003a), the WAT component was subsequently established as a 'stand-alone' out-patient treatment at the Barwon Health Adolescent Mental Health Service in 2000. Interestingly, the results of this part-time treatment were more promising than when combined with the original and more intensive, full-time day program at the Austin Hospital. The efficacy of the WAT model in treating a range of severe mental health problems was confirmed with a comprehensive evaluation (Crisp, 2002a). The third stage of development of the WAT model was to apply it as an early intervention and prevention approach with adolescents in the community who were at risk of developing serious psychological and behavioural problems. Between 2001 to 2003, the *Systemic Wilderness Adventure Therapy Research And Development* (SWATRAD) project was established at the Inner East Community Health Service, Melbourne, to work with local government high schools and community youth and family agencies to investigate the potential to intervene early and treat psychological, behaviouiral and family-based problems in adolescents before they required referral to a clinical service (Crisp, Noblet & Hinch, 2003). The results of the latter two stages of development are presented in this document.

The clinical procedures and operational features of the Wilderness Adventure Therapy® model are described in a detailed manual (Crisp & Noblet, 2004). The model applies a social-emotional competency and coping skill framework to group based adventure experiences that are implemented in the field by a psychologist. WAT treatment is run in a part-time, 10 week program format that involves a range of steps:

(1) Recruitment and orientation of clients, families and support people to the aims and processes of the WAT treatment,
(2) In-depth clinical assessment through psychometric tests and interviews, including setting individualized therapeutic goals with the adolescent and family,
(3) Selection of a small and therapeutically complimentary group of adolescents,
(4) Graded sequence of in-door and one day adventure based activities with therapist facilitated group de-briefing for the adolescent peer group, as well as including families and other social supports directly in the intervention,
(5) Individual goal-oriented counselling by a psychologist throughout,
(6) A 2 day overnight training expedition followed by several weeks of single day adventure activities such as caving, rockclimbing/abseiling, rafting, cross-country skiing, ropes course, combined with group therapy sessions on alternate days.
(7) An extended wilderness expedition of 5-6 days bushwalking or white-water rafting,
(8) Termination activities with the group and individuals before concluding the program,
(9) Follow-up day with all stakeholders, approximately 2-3 months post-program.

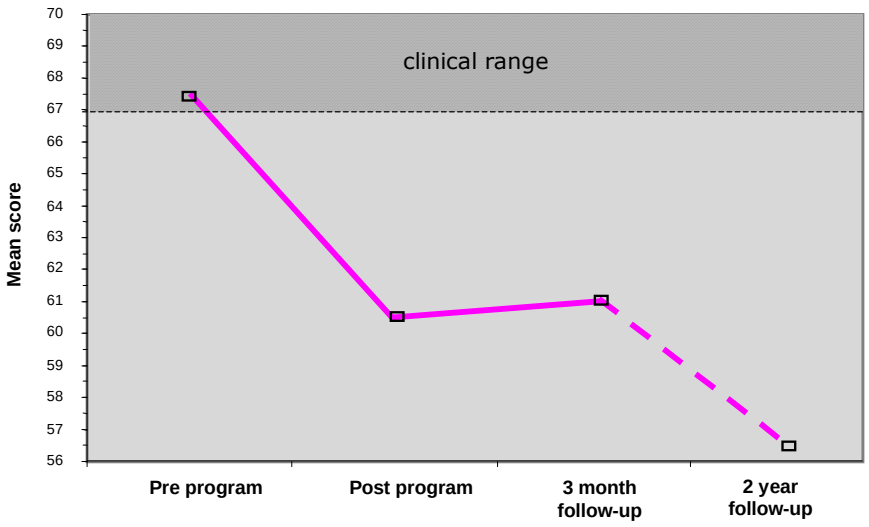
Treatment Outcomes in Clinical Groups

The following results are from 6 WAT treatment programs that were implemented in series between 2000 and 2001 with 39 adolescent out-patients (ages 13 to 18, average age of 15 years 2 months) from the Barwon Health Adolescent Mental Health Service, Victoria. Patients were referred to the WAT treatment because of a lack of response to traditional therapy, or because of the chronicity and/or complexity of their mental health problems[1].

Risk Factors:

1. Mental health symptoms and behaviour problems

Total frequency of mental health symptoms and behavioural problems
The sum total of mental health symptoms in WAT clients is shown in the diagram below (measured by the *Youth Self Report - Total score* [Achenbach, 1991]). Significant reductions were found at post-program, with a large magnitude of change. These changes were maintained at 3 month and 2 year follow-up.

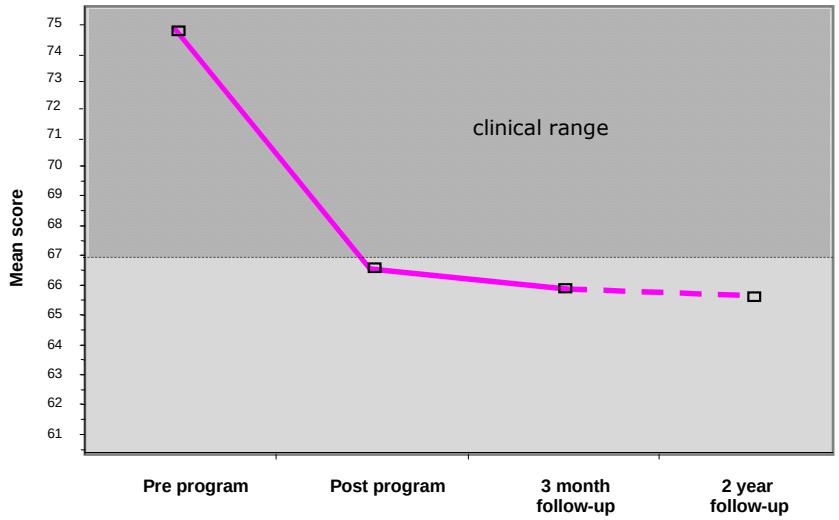


Total mental health symptoms
[significant pre-post treatment reductions p=0.001, partial η^2= .347]

Most severe mental health symptoms and behavioural problems
Ultimately, it is critical to recognise that in clinical groups, the types of symptoms that warrant being the focus of treatment vary between individuals. In order to take account of this, it becomes most meaningful to consider the effects of treatment on the symptoms or behaviours that are the most severe before treatment. To this end, the area with the greatest number of symptoms before WAT was examined.

[1] The only other treatment option of equal or greater intensity was admission to a psychiatric in-patient ward.

The most severe area of symptoms in WAT clients is shown in the diagram below (measured by the *Youth Self Report - highest elevated clinical subscale* [Achenbach, 1991]). A statistical trend[2] of reduced symptoms was found at post-program with a large magnitude of change. These changes were maintained at 3 month and 2 year follow-up.

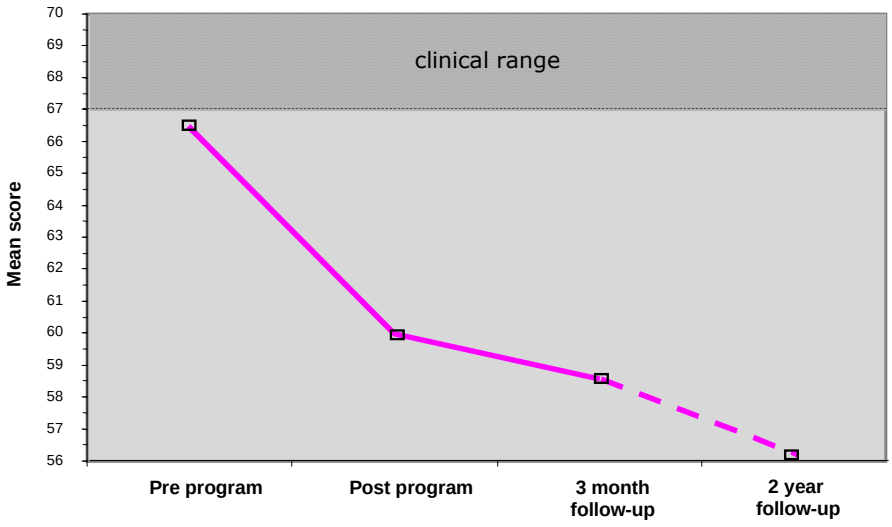


Most Severe mental health symptoms

[trend in pre-post treatment reductions p=0.063, partial η^2= .333]

Internalising symptoms

Internalising symptoms include the cluster of withdrawn behaviour, somatic (physical) complaints, anxiety and depressive symptoms. The frequency of internalising symptoms in WAT clients is shown in the diagram below (measured by the *Youth Self Report – Internalising subscale* [Achenbach, 1991]). A statistical trend of reduced symptoms was found at post-program with a large magnitude of change. These changes were maintained at 3 month and 2 year follow-up.



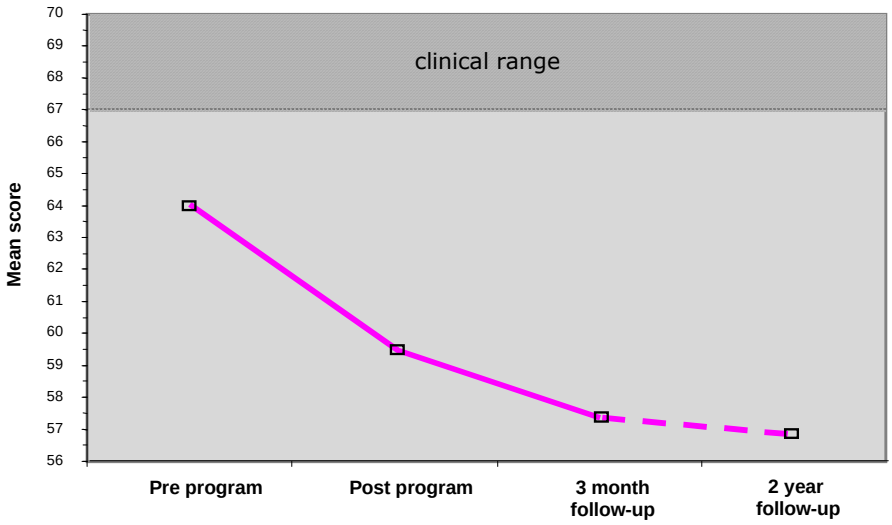
Internalising symptoms

[trend in pre-post treatment reductions p=0.069, partial η^2= .113]

[2] This means a 94% confidence in this finding rather than the usual 95% probability cut-off

Externalising symptoms

Externalising symptoms include the cluster of aggressive and delinquent behaviours. The frequency of externalizing symptoms in WAT clients is shown in the diagram below (measured by the *Youth Self Report – Externalising subscale* [Achenbach, 1991]). Significant reductions were found at post-program with a large magnitude of change. These changes were maintained at 3 month and 2 year follow-up.

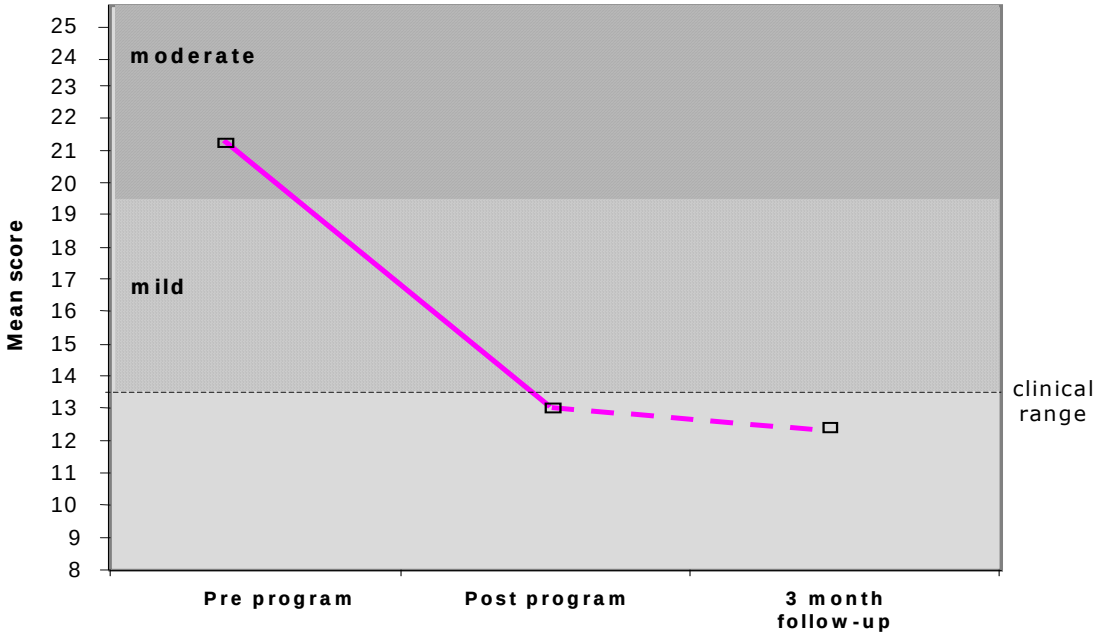


Externalising symptoms

[significant pre-post treatment reductions p=0.032, partial η^2= .154]

2. Depression

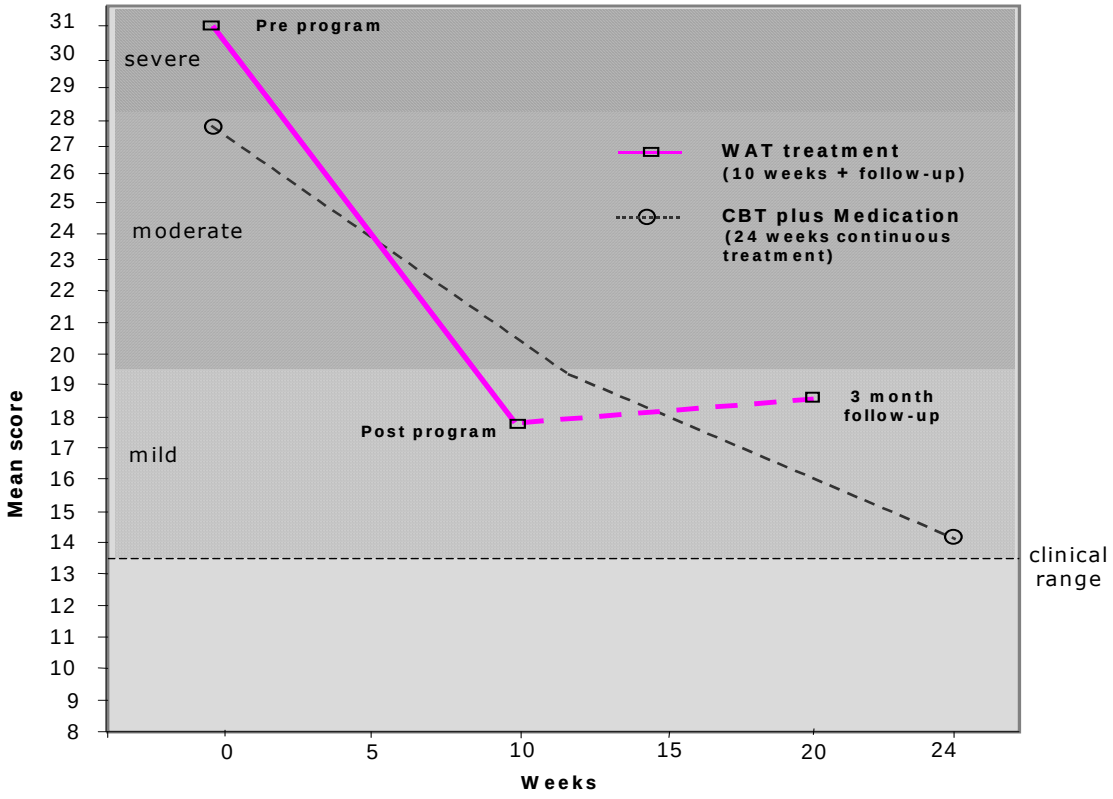
Depressive symptoms in all WAT clients
The average of the range of depressive symptoms in all WAT clients is shown in the diagram below (measured by the *Beck Depression Inventory - Total score* [Beck, Steer & Brown, 1996]). Significant reductions were found at post-program, with a large magnitude of change. These changes were maintained at 3 months.



Depressive symptoms: All clients
[significant pre-post treatment reductions p=0.0001, partial η^2= .431]

Treatment response for WAT clients with clinical levels of depression
Treatment response in WAT clients who had clinical levels of depressive symptoms pre-program is shown in the diagram below (measured by the *Beck Depression Inventory - Total score* [Beck, Steer & Brown, 1996]). Significant reductions were found at post-program, with a large magnitude of change. These changes were maintained at 3 months. The rate and magnitude of treatment response following WAT is benchmarked against the treatment response to the most effective known interventions for depression. This is done by comparing the mean scores (BDI) for adults with diagnosed Major Depressive Disorder who were treated with a combination of cognitive behavioural therapy (CBT) and medication (SSRIs)[3].

[3] Based on studies with adult out-patients formally diagnosed with Major Depressive Disorder who are treated with anti-depressant medication (SSRIs) combined with cognitive behavioural therapy (CBT) have shown a similar average effect size of .34 (Friedman, Detweiler-Bedel, Leventhal, Horne, Keitner & Miller, 2004)



Depressive symptoms: Clients in the clinical range before treatment benchmarked against best-known treatment for MDD

[significant pre-post treatment reductions $p<0.005$, partial $\eta^2 = .628$]

As can be seen by comparison, as well as being statistically significant, the response to WAT is comparable in *rate* and *magnitude* of response to the most effective treatments known for depression, that is, CBT combined with medication. The magnitude of change, or *effect size*, compares favourably well to other psychotherapy outcome research[4]. Further, when considering typical effect sizes of *clinical effectiveness trials* (undertaken in clinical settings under normal operating conditions, in contrast to highly controlled university based research), effect sizes have been found to be very small, if not negative (Weisz & Jensen, 2001). For example, with adolescents there is little evidence for the effectiveness of interpersonal therapy, and even less for family therapy (Harrinton, Whittaker & Shoebridge, 1998).

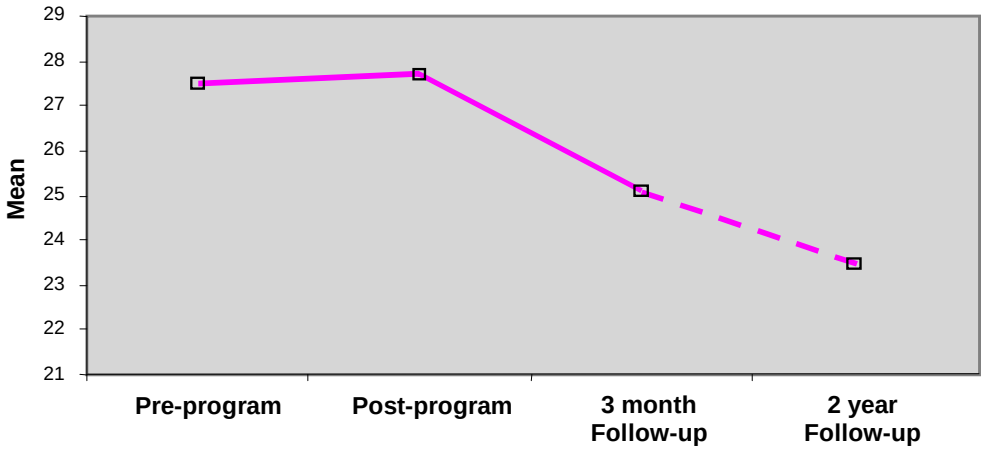
Also, of note, WAT is only 10 weeks in duration compared to 24 weeks duration of continuous CBT + medication treatment apparently required to achieve a similar result. The financial cost-to-benefit of WAT treatment compared with weekly CBT and psychiatric consultations is also comparable. However, WAT has substantial additional benefits with regard to enhancing important resilience (or protective) factors (see below), and promoting normal psychological and social development generally.

[4] Meta-analyses of psychotherapy for children and adolescents have found an average effect size (ES) of 0.71 (Kazdin & Weisz, 1998)

3. Poor coping

Counter-productive coping

Levels of counter-productive coping in WAT clients are shown in the diagram below (measured by the Adolescent Coping Scale [SF] – *Non-productive coping* subscales [Frydenberg & Lewis, 1993]). While no change was observed immediately following WAT, a statistical trend of reduced counter-productive coping, with a large magnitude of change was found from post-program to 3 month follow-up. Improvement continued 2 years later at the second follow-up, again with a large magnitude of change ($p=0.073$, $\eta^2= .29$).



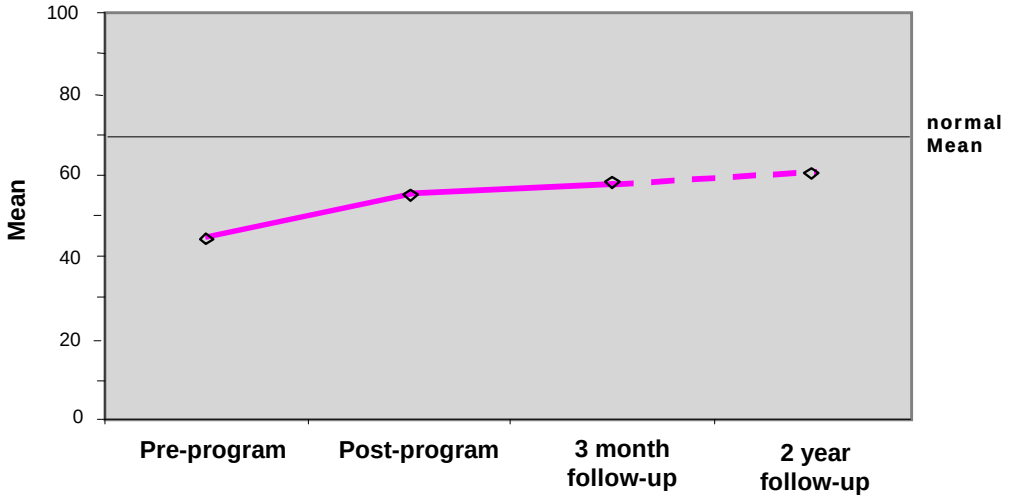
Counter-productive Coping

[trend in post-treatment to follow-up reductions $p=0.063$, partial $\eta^2= .096$]

Protective Factors:

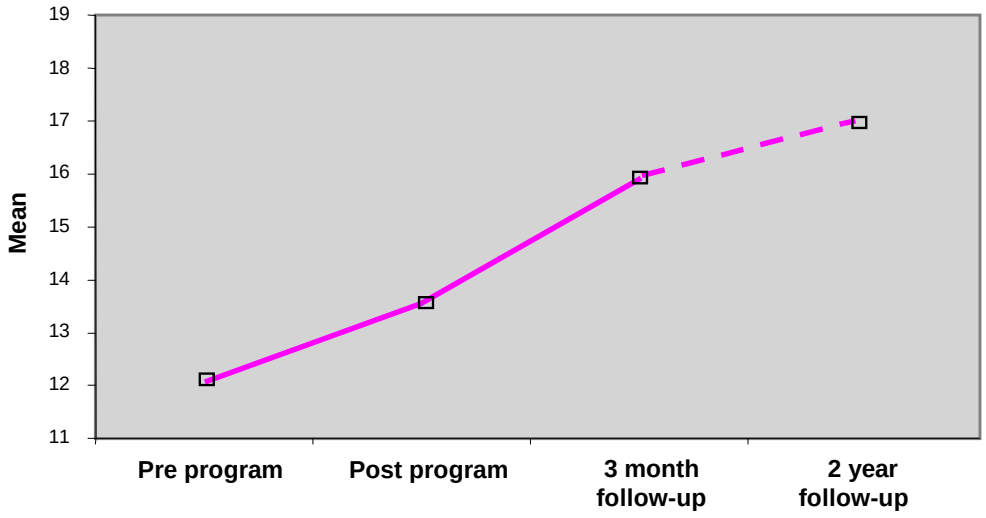
4. Self Esteem

Total self esteem
Total levels of self-esteem in WAT clients are shown in the diagram below (measured by the Coopersmith Self Esteem Inventory – *Total* score [Coopersmith, 1981]). Significant improvements were found at post-program, with a large magnitude of change. These changes were maintained at 3 month and 2 year follow-up.



Total Self Esteem
[significant pre-post treatment improvements p=0.003, partial η^2= .264]

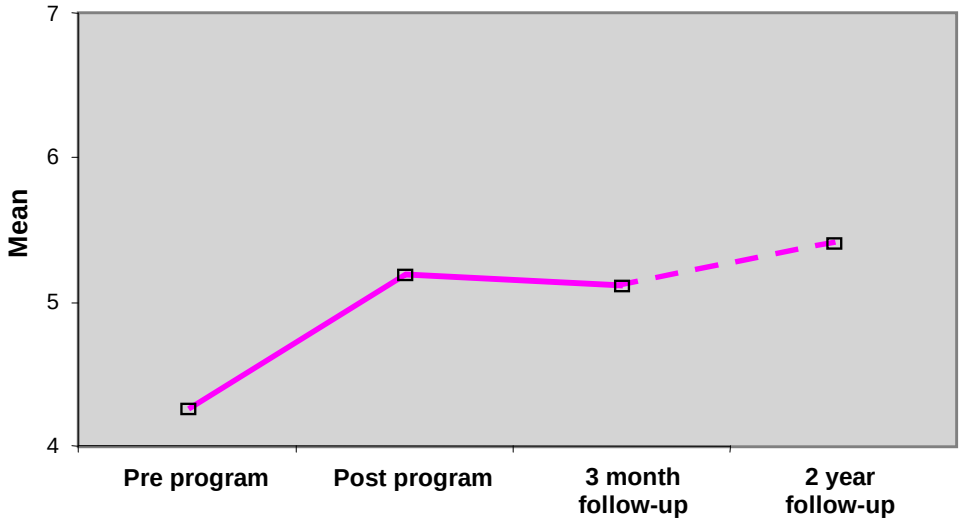
General self esteem
Levels of general self-esteem in clients are shown in the diagram below (measured by the Coopersmith Self Esteem Inventory – *General* subscale [Coopersmith, 1991]). Significant improvements were found at post-program, with a large magnitude of change. These changes were maintained at 3 month and 2 year follow-up.



General Self Esteem
[significant pre-post treatment improvements p=0.012, partial η^2= .192]

Social self esteem

Levels of social self-esteem in WAT clients are shown in the diagram below (measured by the Coopersmith Self Esteem Inventory – *Social* subscale [Coopersmith, 1981]). Significant improvements were found at post-program, with a large magnitude of change. These changes were maintained at 3 month and 2 year follow-up.

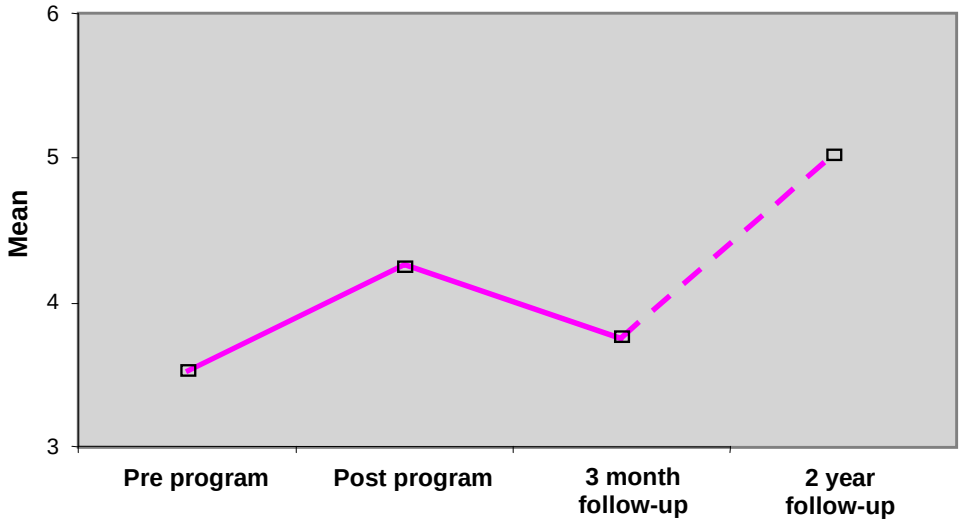


Social Self Esteem

[significant pre-post treatment improvements p=0.0001, partial η^2= .959]

Home-Parents self esteem

Levels of self-esteem at home and with parents in WAT clients are shown in the diagram below (measured by the Coopersmith Self Esteem Inventory – *Social* subscale [Coopersmith, 1981]). Significant improvements were found at post-program, with a large magnitude of change. These changes were maintained at 2 year follow-up.

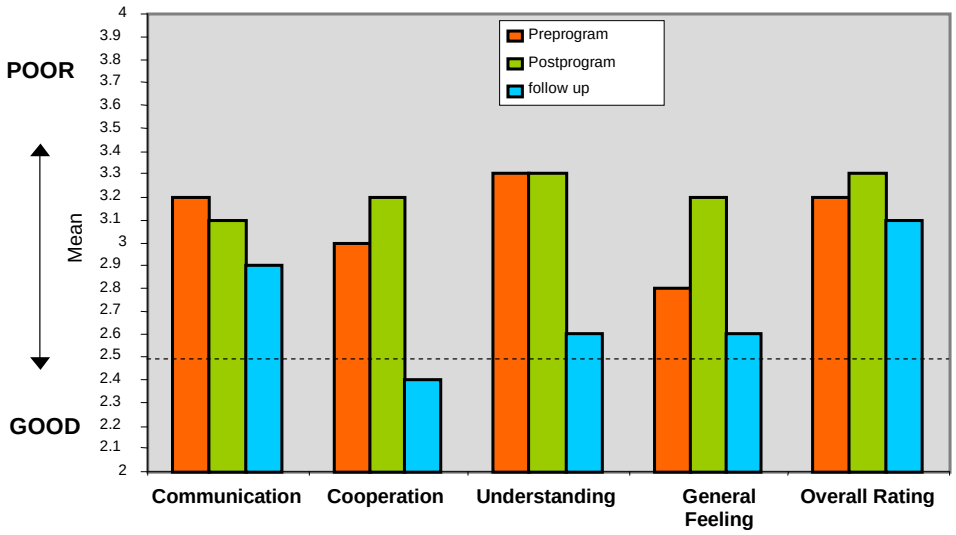


Home-Parents Self Esteem

[significant pre-post treatment improvements p=0.047, partial η^2= .125]

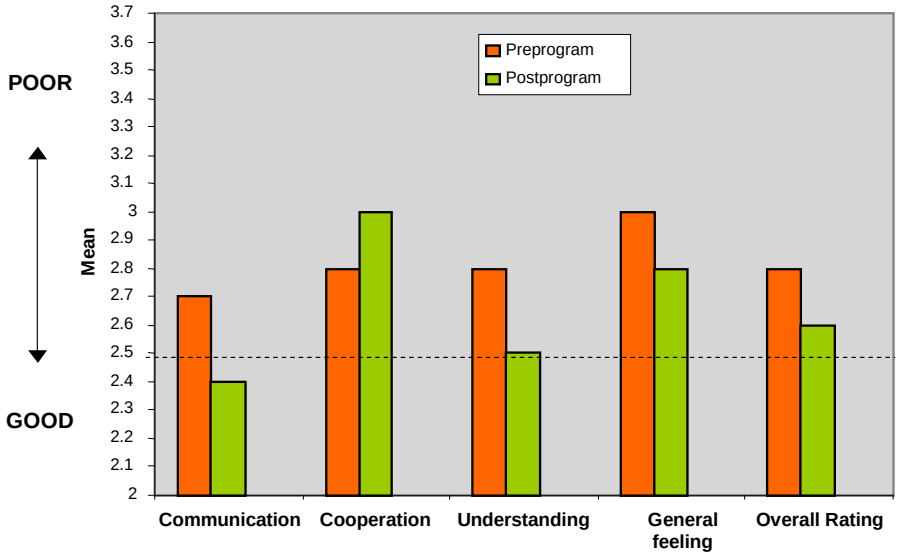
5. Family functioning

Client perception of family functioning
Using a customised questionnaire, WAT clients rated their perception of their family's functioning in 4 key areas as well as an overall rating. Except in the area of *communication*, clients did not see improvements in family functioning immediately following WAT. However, 3 months following treatment, they did rate the family to be functioning better than pre-treatment levels, suggesting a delayed benefit from the WAT program.



Family functioning – client ratings

Parent perception of family functioning
Using the same customised questionnaire, the parents of WAT clients rated their perception of their family's functioning. With the exception of *co-operation*, parents reported improved levels in all aspects of family functioning immediately following WAT.



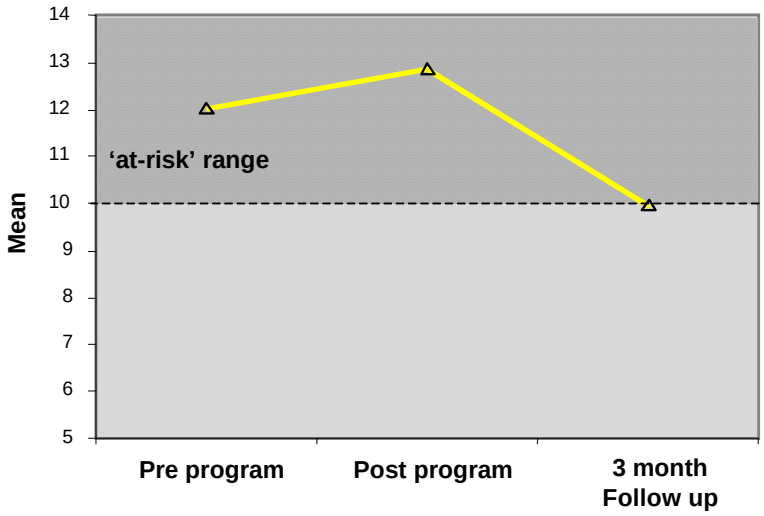
Family functioning – Parent ratings
[data was not collected for parents at follow-up]

Prevention & early intervention in 'at-risk' groups

The following results are from 6 community-based WAT early intervention programs that were implemented in series between 2001 and 2003 with 36 adolescents (ages 12 to 18, average age of 14 years 9 months). Two programs were run in government high schools, and 4 programs were run in community counselling services, Victoria. WAT clients were selected to undertake a WAT program when they were identified as showing significant risk factors including school failure, poor body image and eating problems, substance abuse, being victims of sexual abuse or assault, or family dysfunction. Referrals were made by teachers, social workers, youth workers and counselling agency staff. Clients were referred to the WAT programs because they typically demonstrated poor coping with the demands of life, which was resulting in poor school performance or inadequate functioning in other areas such as peer relationships.

6. Suicide risk and life-threatening behaviour

Gauging life threatening attitudes and behaviour in at-risk groups is a way of estimating their *future* risk for self-damaging and suicidal behaviour. Attitudes and behaviours that are known to predict future risk were assessed in at-risk clients of WAT programs. Levels of life-threatening attitudes and behaviours are shown in the diagram below (measured by the Life Attitudes Schedule [SF] – total score [Rohde, Lewinshonn, Seeley, Langhinrichsen-Rohling, 1996]). Changes in attitudes and behaviour at follow-up were on the borderline of the "at-risk" range, however, these results did not reach statistical significance.

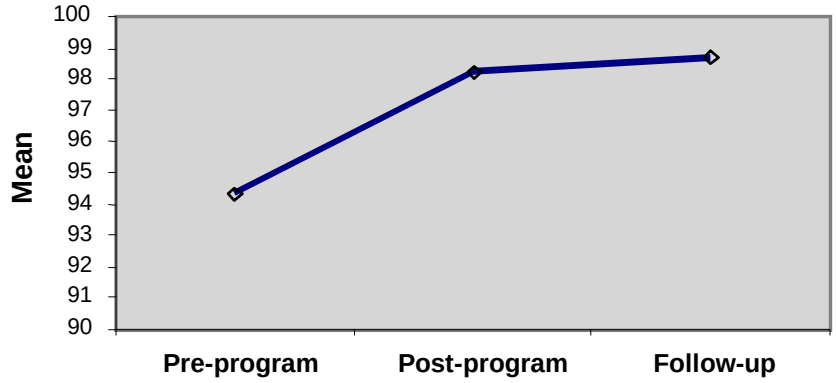


Life Threatening Attitudes & Behaviour

[non-significant post-treatment to follow-up improvements $p>0.05$, partial $\eta^2 = .06$]

7. Social competence & school adjustment

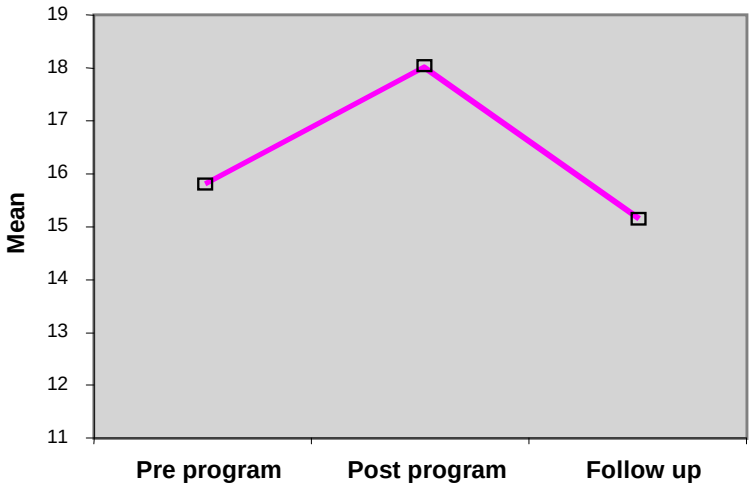
The average rating by teachers of social competence and school adjustment in WAT clients is shown in the diagram below (measured by the Scale of Social Competence and School Adjustment – *Total* score [Walker & McConnell, 1995]). A statistical trend[5] of improved behaviour was found at post-program with a very large magnitude of change. These changes were maintained at 3 month follow-up.



Social Competence & School Adjustment
[statistical trend of pre-post treatment improvements p=0.07, partial η^2= .28]

8. Self-esteem

General self esteem
Levels of general self-esteem in WAT clients are shown in the diagram below (measured by the Coopersmith Self Esteem Inventory – *General* subscale [Coopersmith, 1991]). Significant improvements were found at post-program, with a very large magnitude of change. These improvements had dissipated by the 3 month follow-up.

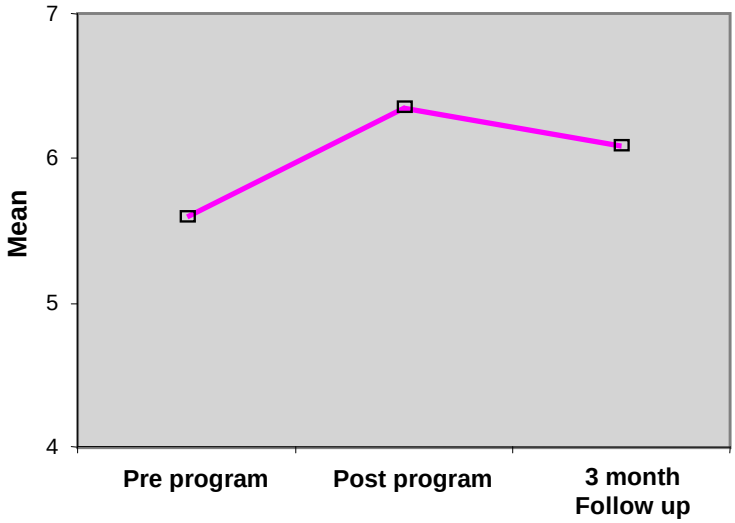


General Self Esteem
[significant pre-post treatment improvements p<0.05, partial η^2= .27]

[5] This means a 93% confidence in this finding rather than the usual 95% probability cut-off

Social self esteem

Levels of social self-esteem in WAT clients are shown in the diagram below (measured by the Coopersmith Self Esteem Inventory – *Social* subscale [Coopersmith, 1981]). Significant improvements were found at post-program, with a large magnitude of change. These changes were maintained at 3 months.

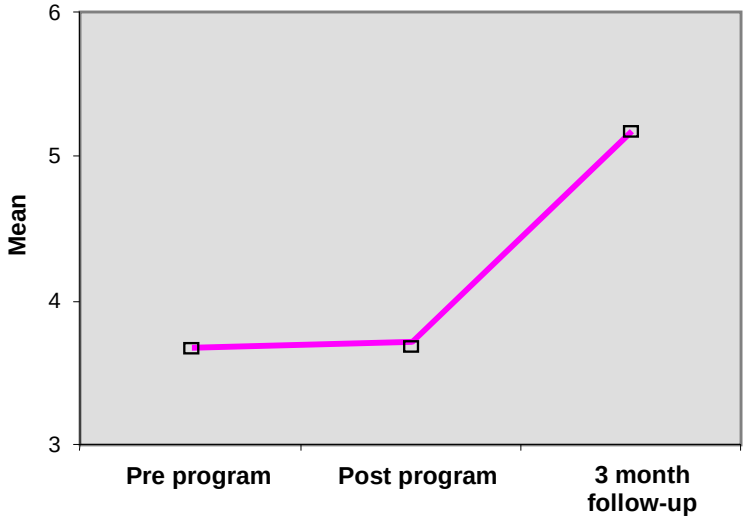


Social Self Esteem

[significant pre-post treatment improvements $p<0.05$, partial $\eta^2= .19$]

School self esteem

Levels of school self-esteem in WAT clients are shown in the diagram below (measured by the Coopersmith Self Esteem Inventory – *School* subscale [Coopersmith, 1981]). While no significant improvements were found at post-program, there was a very substantial improvement 3 months following the WAT program.



School Self Esteem

[significant post treatment to follow-up improvements $p<0.05$, partial $\eta^2= .34$]

9. Resilience factors

WAT clients who participated in school-based WAT programs, and their parents and teachers completed a customised questionnaire that sought to measure perceptions of known resilience factors such as feelings of social cohesion and trust in others, readiness to express feelings and seek help, confidence to solve problems and optimism. Key results are described below.

Adolescent perceptions of their resilience:

1. Before the WAT program, clients reported high levels of feeling a '*connection to school*' but low levels of '*trust in school*'. However, following the WAT program, and at 3 months follow-up, feelings of '*connection to school*' and '*trust in school*' were similar to scores in other areas.
2. Following the WAT program, scores on *'connection to peers'* had decreased, but at 3 month follow-up, these ratings returned to pre-program levels. However, '*trust in peers*' ratings were similar to scores on other measures throughout the program.
3. WAT clients reported greater '*optimism about the future*' and '*perseverance*' immediately following the program, and these feelings continued, and increased 3 months later at follow-up.
4. WAT clients reported increases in confidence in '*ability to solve problems*', *'work with peers'* and '*confidence in friendships'* following the WAT program, and 3 months later at follow-up these benefits were maintained.
5. WAT clients reported increased likelihood in '*asking for help*' following the WAT program, however, these scores returned to pre-program levels 3 months later at follow-up.

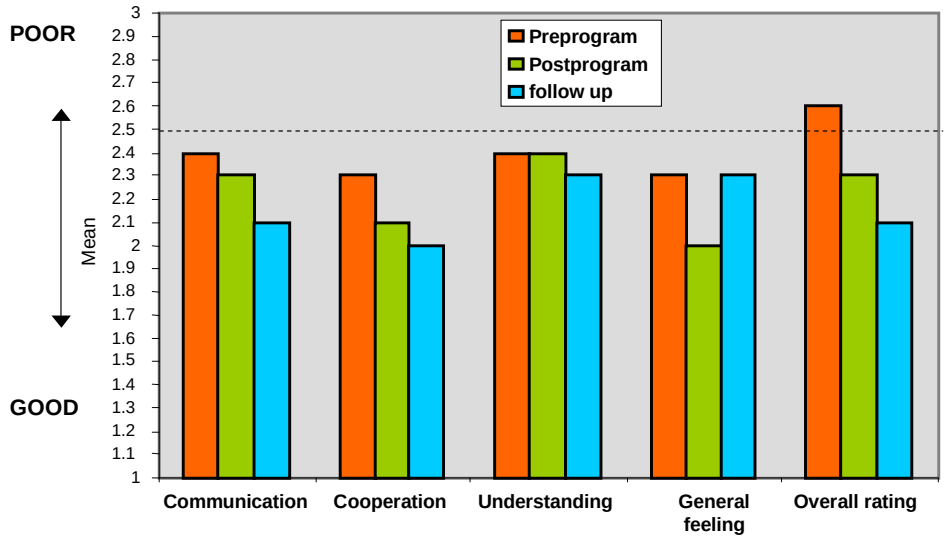
Parent perceptions of resilience in their adolescent children:

1. Parent ratings of *'connection to peers'*, *'connection* to *family'* and *'connection to school'*, and '*trust in peers / parents / school*' all increased following the WAT program and again 3 months later at follow-up.
2. Parent ratings of their child's ability to '*solve problems*', '*work with peers*', have *'confidence in friendships*', '*deal with hassles'* and *'perseverance'* showed no change immediately following the WAT program. However, these areas increased 3 months later at follow-up.
3. Parent ratings of their child's *'confidence in friendship'* improved following the WAT program, but was not sustained 3 months latter at follow-up.

Teacher perceptions of their students following the WAT program:
Teachers reported that students who completed the WAT program had better connections and trust with peers, and were more confident in making friends. Students were reported to be more likely to ask for help, express their feelings, and were more confident in solving their problems. They were more optimistic about the future, showed more perseverance, were better in groups and better at dealing with life hassles.

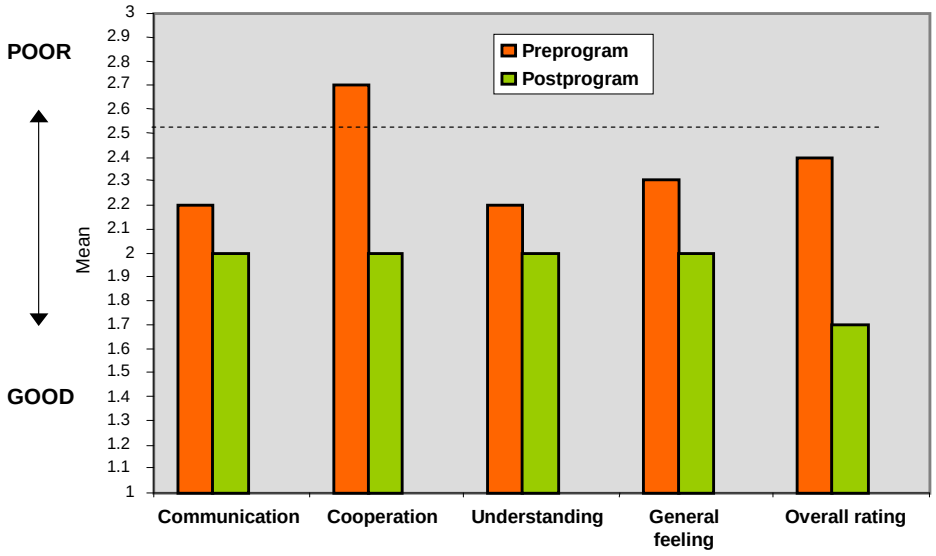
10. Family functioning

Client perception of family functioning
Using a customised questionnaire, WAT clients rated their perception of their family's functioning in 4 key areas as well as an overall rating. Except in the area of *understanding*, WAT clients saw improvements in family functioning immediately following WAT treatment. However, 3 months following treatment, they did rate the family to be more understanding than pre-treatment levels, suggesting a delayed benefit from the WAT program. Additionally, while *communication* and *cooperation* continued to improve, the *general feeling* in the family returned to pre-program levels at 3 months follow-up.



Family functioning – client ratings

Parent perception of family functioning
Using the same customised questionnaire, the parents of WAT clients rated their perception of their family's functioning. All areas of family functioning improved immediately following WAT treatment.



Family functioning – Parent ratings
[data was not collected for parents at follow-up]

Therapeutic Factors

All Wilderness Adventure Therapy components combined:

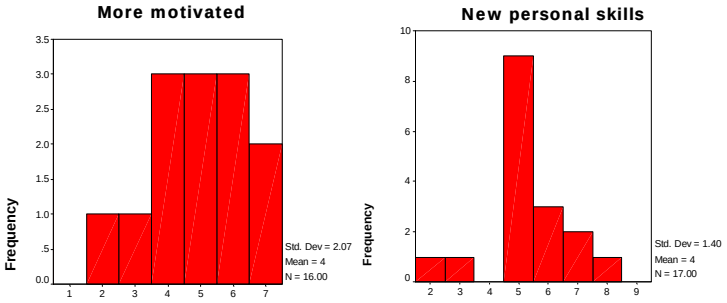
This section reports the results of a process evaluation of the therapeutic factors of the various WAT components using the *Wilderness Adventure Check-in Survey* (Crisp, 2001b) with both clinical and community-based clients. This instrument measures immediate feedback about what aspects WAT clients found the most therapeutic and why.

- Most frequently, clients reported that they found '***offering to help someone***' the most important social interaction or aspect overall in the majority of activities (27%).
- Most frequently, clients reported that the most important emotional reaction during or after the activity was that they '***felt proud of their achievement***' (26%).
- Most frequently, clients reported the reason they felt that the experience was successful was that they '***felt accepted as part of the team***' (20%).

Overall reasons for benefiting from a WAT program

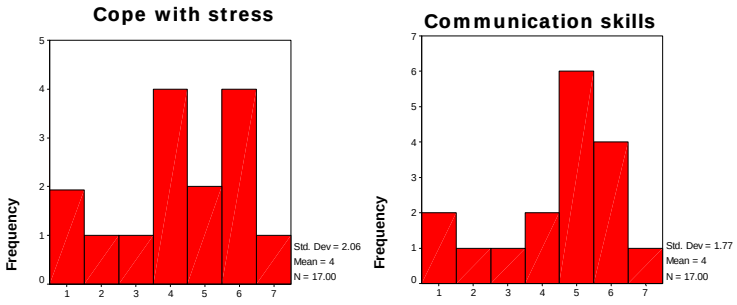
When community-based clients were asked about their experience of WAT at the end of the WAT program, they reported the following were important factors in benefiting from the treatment:

1. A majority of participants reported that ***feeling more motivated*** and ***learning new personal skills*** was important.



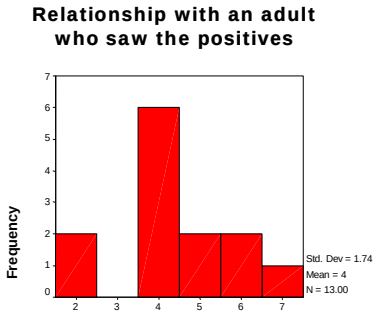
*Rating of 4 or greater represents greater agreement, and 3 or less the opposite

2. A majority of participants reported that ***learning how to cope with stress*** and ***learning new communications skills*** was important.



*Rating of 4 or greater represents greater agreement, and 3 or less the opposite

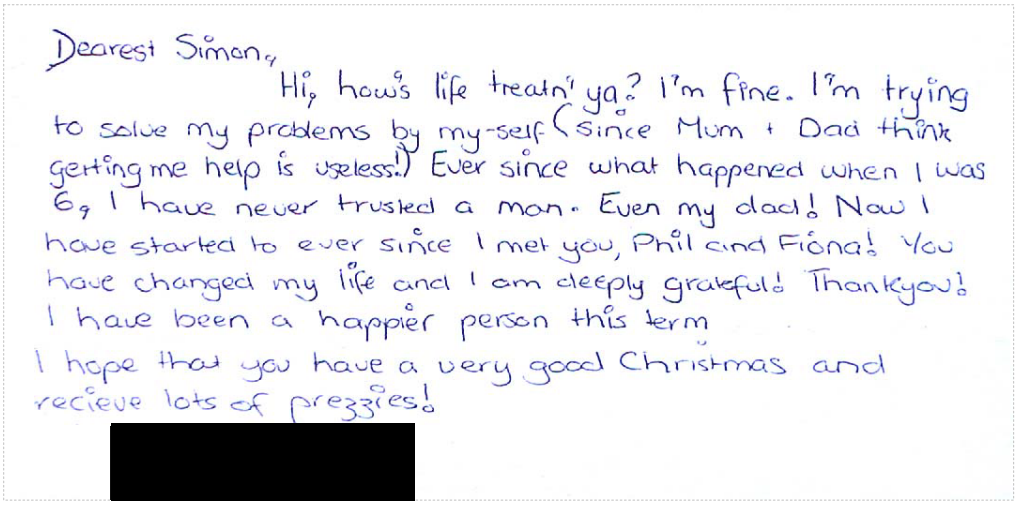
3. A majority of participants reported that having a ***relationship with an adult*** who saw the positives in them were important.



*Rating of 4 or greater represents greater agreement, and 3 or less the opposite

Client Satisfaction

This section outlines some qualitative results from clients of community-based WAT programs and stakeholders about their experience of WAT. Anecdotally, client satisfaction was observed to be very high, as illustrated by this letter received by staff below:



Dearest Simon,

Hi, how's life treatn' ya? I'm fine. I'm trying to solve my problems by my-self (since Mum + Dad think getting me help is useless!) Ever since what happened when I was 6, I have never trusted a man. Even my dad! Now I have started to ever since I met you, Phil and Fiona! You have changed my life and I am deeply grateful! Thankyou! I have been a happier person this term

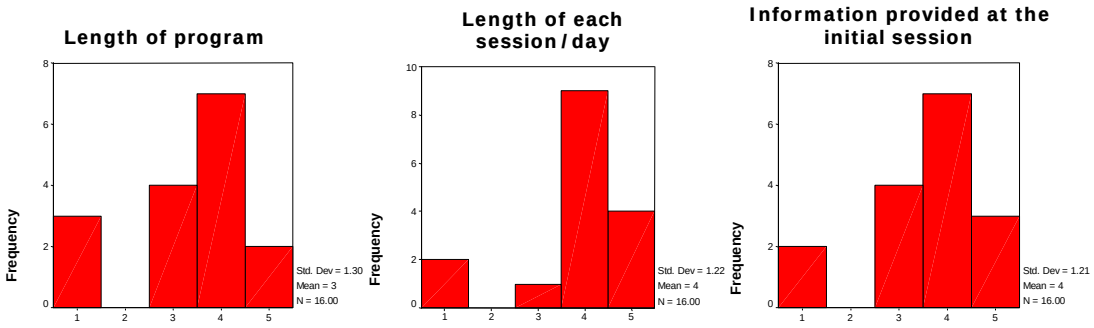
I hope that you have a very good Christmas and recieve lots of prezzies!

[redacted]

Clients in the program and referring agency staff completed questionnaires relating to their experience of WAT. These results are presented below.

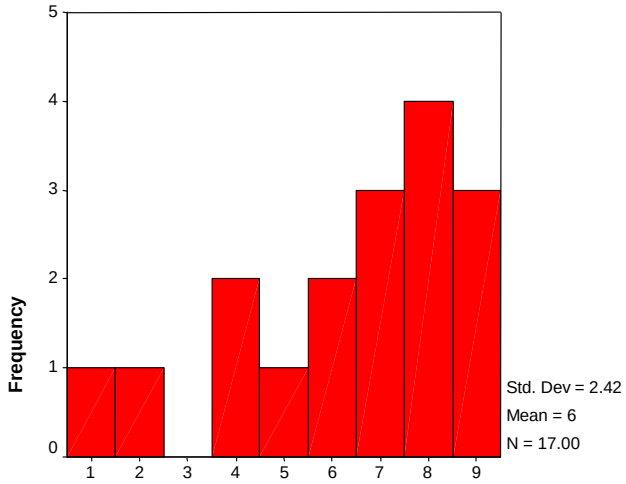
Client feedback

1. A majority of WAT clients reported that they were satisfied with the length of the program and the sessions planned each day, and were also satisfied with the information provided at the initial information session.



*Rating greater than 3 represents greater agreement, and less than 3 the opposite

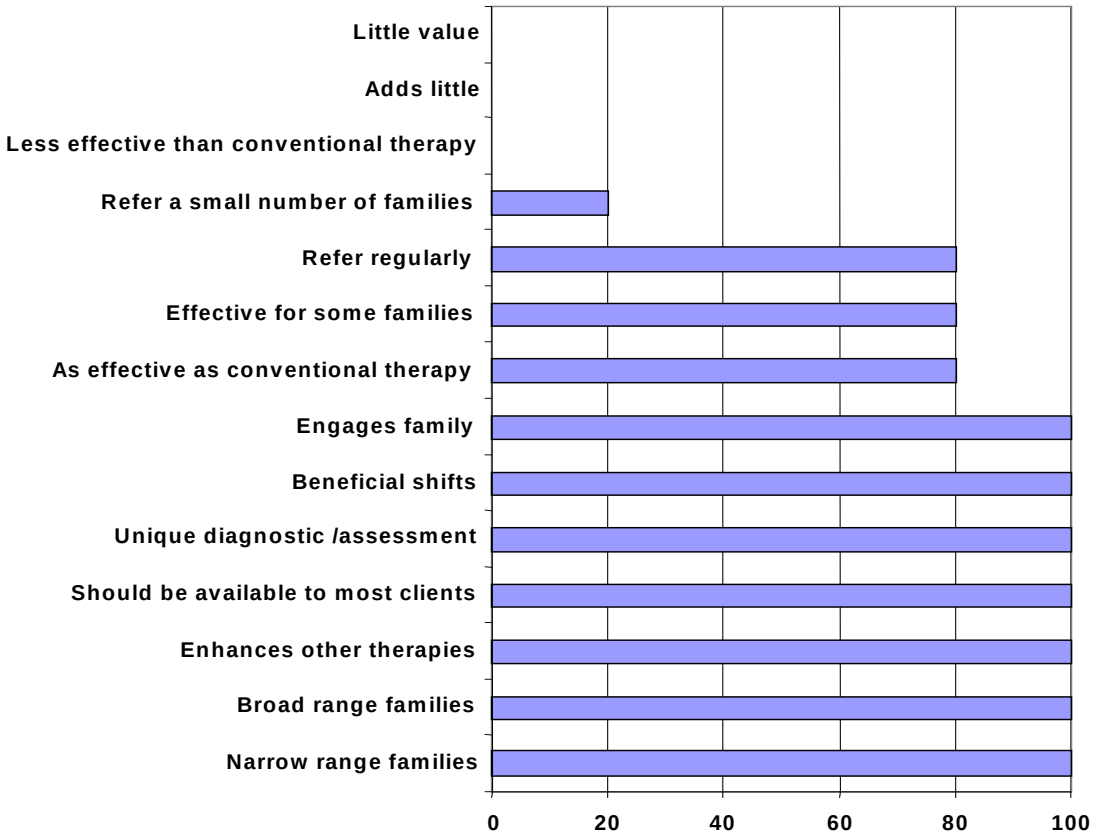
2. Importantly, the majority of WAT clients reported that they liked the program.



Overall rating of WAT

Agency / School Experience

Partnership agencies, school staff and referring professionals were surveyed about their views about the value of Wilderness Adventure Therapy. These results are summarized in the diagram below.



Percentage of agencies answering 'Yes' to question

How safe is Wilderness Adventure Therapy?

Statistics:

- WAT programs have been run for hundreds of clients continuously in Victoria since 1992 with an exceptional record of safety,
- Outdoor venues, activities and procedures have been rigorously tested: Over 45 x 10 week programs implemented, including over 1,000 field days (the equivalent of 3 continuous years in the field),
- A recent US study has found that wilderness therapy programs are substantially safer than general camps for teenagers, are 18 times less likely to result in injury than high school football practices and cheerleading, and are less than half as risky for a fatal accident as motor vehicle accidents (Cooley, 2000).

What measures are in place that make WAT safe?

1. Thorough medical, psychological and behavioural screening prior to the program,
2. Physical challenge is graduated, allowing on-going assessment in the field to ensure the level of effort required is appropriately matched to the capacity of clients,
3. Field staff hold current (a) wilderness or remote area first-aid qualifications, (b) psychological first-aid accreditation, and (c) accredited training[6] in Wilderness Adventure Therapy®,
4. Activities and expeditions take place in extensively used venues well known to staff that provide easy access to external support if needed,
5. Partly because of small group size, the program and activities are highly flexible, are reviewed frequently, and are changed to suit the group and prevailing conditions,
6. All procedures are outlined in detail in an extensive operations manual that is based on adventure activity industry best practices.

What makes WAT safe?

- Qualitative research suggests that facilitated inter-personal experiences are the major reasons client benefit - not exposure to risk or physical challenge.
- Adventure activities and wilderness expeditions are used only as a catalyst that highlights individual issues and provides a context for psychologists to provide individual counselling or group therapy[7],
- Carefully minimising unnecessary exposure to risk is the best way to ensure therapeutic effectiveness without compromising safety,
- WAT procedures and safety practices are comprehensively detailed in practice guidelines that underpin the training required for WAT® accreditation.

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[6] The Australian Wilderness Adventure Therapy® Practitioner Accreditation Scheme (Crisp, 2002b) is the first of its kind anywhere in the world, and the only formal regulation of practice in this field in Australia.

[7] Many adventure based programs rely primarily on high levels of challenge, hardship or prolonged isolation as the major mechanism to bring about change in clients.

Conclusion

These results show WAT to be extremely promising as both an effective clinical treatment for a range of severe mental health problems as well as a preventative and early intervention approach for at-risk groups in the community. Further, when benchmarked against best-known treatments for depression, WAT shows an equivalent benefit. Uniquely, WAT also promotes normal psychological and social development above and beyond these mental health treatment benefits.

These results for the WAT model are also significant when contrasted against the few studies of other Australian program models, which usually fail to show any meaningful benefit (see Brand, 2001 and reply by Crisp, 2003b). More broadly, the same holds for more traditional therapies for children and adolescents that also frequently struggle to demonstrate substantial clinical effectiveness (Weiss & Jensen, 2001).

In particular, while a wide range of problems respond well to WAT, depression in particular shows treatment response of comparable, if not slightly better, rate and magnitude to that of medication combined with conventional psychological therapies (cognitive behavioural therapy: or CBT). Of equal importance, resilience factors such as self-esteem, social competence, school functioning and family functioning have shown clear and sustained improvements, thereby mitigating future risk.

The most important therapeutic factors reported support (a) self-efficacy theory of skill development and coping (Bandura, 1977), (b) peer socialisation processes and, or, (c) generic group therapy factors (Yallom, 1995). These findings reinforce how critical it is that these programs are facilitated by qualified therapeutic professionals, as well as the importance of practitioners being accredited in the application of the specific procedures and methods of this model.

In addition to being appropriately aligned with the developmental needs of adolescents, WAT also appears to be effective in engaging adolescents with its intrinsic appeal and the high level of client satisfaction reported. In the current mental health scene, there are very few, if any, other treatments that demonstrate this level of effectiveness, that additionally, yield such a number of added benefits, and that are also viewed so positively and rated so highly by adolescent clients.

Summary

- *Effective for a range of adolescent problems and clinical disorders* ☑
- *Equally effective as medication + CBT for clinical depression* ☑
- *Reduces counter-productive coping styles* ☑
- *Improves self esteem in a range of areas* ☑
- *Enhances family functioning* ☑
- *Increases social competence & school adjustment* ☑
- *Enhances resilience factors such as social connection & optimism* ☑
- *Participant model of treatment promotes normal development* ☑
- *Safe: extensive field trials over many years* ☑
- *Run by highly trained psychologists & accredited outdoor leaders* ☑
- *Highly appealing to adolescents & high level of client satisfaction* ☑

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Guidelines for the practice of

Wilderness Adventure Therapy

Findings from the Systemic Wilderness Adventure Therapy Research And Development (*SWATRAD)* project

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THE IAN POTTER FOUNDATION

Inner East Community Health SERVICE

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Executive Summary

Project Description

The Systemic Wilderness Adventure Therapy Research And Development (SWATRAD) project was based in the eastern metropolitan region of Melbourne between 2001 and 2003. This was a partnership between the Inner East Community Health Service, several local government secondary schools, community counselling services (Eastern Drug & Alcohol Service, Victims Assistance Program, Eastern & Northern Centers Against Sexual Assault) and Eastern Health and Austin Child & Adolescent Mental Health Service. The project sought to determine specific service gaps for adolescents and their families in a range of community and clinical agencies and schools, and then attempt to address these gaps by trialling and evaluating tailored, service-integrated, *Systemic* Wilderness Adventure Therapy programs. This enabled the development and documentation of the following practice guidelines for specific client types and service settings spanning early intervention in schools, community counselling and clinical treatment services.

Aims and Objectives

Earlier research emphasised the need for the development and documentation of guidelines for practice in this disparate and largely unregulated field (Crisp, 1997). The aims of this project were threefold. First, survey key service providers in various adolescent and youth fields with the local region. Determine what gaps currently exist in their service with regard to adolescents requiring intensive intervention, and what specific group within their clientele might be well suited, or effectively treated, by a Wilderness Adventure Therapy intervention. Second, based on those needs identified, develop a service model (*Systemic Wilderness Adventure Therapy*) that complimented, supported and enhanced each existing youth service involved in the project. Third, using the data collected and knowledge gained from the clinical Wilderness Adventure Therapy trials, evaluate this approach, and document practice guidelines.

Clinical Trials

Client agencies that had a focus on specific at-risk groups were recruited as partners in the project. Six different program types were developed based around specific client issues. These programs were designed to be *service integrated* with each setting, and then implemented and evaluated. As a result, applied knowledge was gained about the application of Wilderness Adventure Therapy services within schools, community counselling and clinical services. In particular, a systemic approach was taken with each program, as well as at a broader community and service systems level within the region. Further, the specific therapeutic 'in the field' needs and considerations for each client type were able to be better understood and documented.

Evaluation Methods

A mixed-method approach was used to determine treatment outcomes. This used standardised psychometric measures with high validity and reliability combined with qualitative survey information and clinical observation. Information was sought not just from the participating adolescent clients, families or professionals, but also from referring agency staff where possible. Pre-program / post-program data comparisons and follow-up data allowed conclusions to be drawn about the changes over time in risk factors such as mental health symptoms, as well as protective factors such as self-esteem and coping styles. In order to develop hypotheses about the reasons for therapeutic benefit, and generally gauge the client's experience of the programs, process evaluation and consumer satisfaction data were collected. Comparisons with datasets from previous Wilderness Adventure Therapy trials using the same measures extended the relevance of the data, and allowed for firmer conclusions to be drawn.

Key Outcomes

Overall outcomes for clients following Wilderness Adventure Therapy were consistently positive. Reductions in risk factors such as mental health symptoms were found and conversely, protective factors had generally increased. These results were consistent with previous studies with different participants in different services settings. In particular, depressive symptoms showed very good response to this form of treatment, to a degree comparable to published studies of best known conventional therapy (CBT) and medication. The clinical experience gained from the trials and previous clinical work has been documented in the form of detailed practice guidelines in this report. These guidelines outline both the needs of specific types of clients, but also considerations for implementing programs in a wide range of service settings. Finally, the project has successfully demonstrated a unique region wide capacity for an inter-sectorial response to the early intervention and treatment of major mental health problems.

Recommendations

1. It is recommended that support be given to disseminating the outcomes of the SWATRAD project widely, perhaps in the form of a published monograph, or other means that would enable a broad distribution to educational, community counselling and mental health sectors.
2. It is recommended that practitioners from both the outdoor leadership field and therapeutic professions be encouraged and supported to undertake training in Wilderness Adventure Therapy in order to become competent in implementing best practices and procedures of Wilderness Adventure Therapy.
3. It is recommended that this inter-sectorial, region wide service model be trialled on a longer-term basis (5 years) in one region, with a view to expanding such services to other regions over time. It is recommended that this be undertaken collaboratively across sectors such as Mental Health, Community Health, Education, Juvenile Justice, with support at the State or Federal level.
4. It is recommended that funding be allocated to systematically researching the comparative treatment and cost effectiveness of systemic Wilderness Adventure Therapy to engage and treat adolescents with Conduct Disorder, including those with related symptoms and behaviours, and their families.
5. It is recommended that funding bodies support efforts toward the formation of professional structures, such as a professional association, that could regulate the training of practitioners, and set and monitor standards of practice.

Dr. Simon Crisp
Clinical Child, Adolescent & Family Psychologist
Director *SWATRAD* Project

Acknowledgements

There are an enormous number of people who have contributed to the success of this project in every way imaginable. First and foremost, the Board members of the Ian Potter Foundation are to be acknowledged for the generous support in funding the bulk of this project. Our thanks go to them especially for additional support when the international insurance crisis hit, and for their patience with the exploratory process of researching and developing an innovative and complex methodology. Most importantly, our heartfelt thanks go to the Executive Secretary of the Ian Potter Foundation, Dr Dorothy Scott. A great champion of the importance of making services for those in need more human, and in-step with contemporary requirements. Dr Scott's unbending passion, interest and encouragement to provide the best quality programs we could were always appreciated.

Right from the project's inception, Rod Wilson, CEO Inner East Community Health Service, was enormously supportive of what, to others, could have seemed like an odd idea. Rod took a risk with the project, seeing the importance for innovation how health services are delivered, and the need to reach very at-risk young people. His genuine interest and practical assistance at all stages provided us with such important support. Rod's commitment was matched by Jill Wraight, Manager, Inner East Community Health Service, who brought such intelligent and affable administrative and practical guidance. She ensured the project took its place alongside the mainstream services of the Health Center, and so we found important collegial links right from the outset. Following in this tradition, Paul Hamilton, Health Services Manager, provided similar practical assistance with interest and considerable involvement in the latter stages of the project.

Moreover, we would like to acknowledge the substantial efforts and contribution of many colleagues who worked alongside us by supporting, managing, taking practical risks and walking in the wilderness with their clients. We have learnt much from many, and have been fortunate to meet and work with so many dedicated and skilled colleagues.

Particularly, we would like to thank and congratulate those participating young people and families who took a risk with us into the unknown in the hope of finding relief, direction, solutions to long-standing problems, or simply to feel good about themselves, often for the first time. Sometimes participants' experiences were poignant and profound. For instance, in the words of one previously depressed and seriously suicidal 15-year-old participant "I felt loved (by those in the group)… for the first time in my life…". Your courage, and the spirit of adventure you showed, inspired us to do our best, and affirmed that we were on the right track – thanks for your guidance, feedback and support.

We have attempted to list below all those who warrant special mention for both huge and small contributions to this project:

- Rotary Clubs of Balwyn, North Balwyn, Kew and Camberwell
- Students, parents and teaching staff involved from the participating schools
- Philip Williamson - Assistant Principal, Balwyn High School
- Raelene Curwood - Student Welfare Co-ordinator, Balwyn High School
- Sue Marera – Student Welfare Co-ordinator, Kew High School
- Paula Kolivas – Year Co-ordinator, Canterbury Girls Secondary College
- Participating adolescents, families and clinicians of the Austin Hospital, Child & Adolescent Mental Health Service (CAMHS)
- Dr Ola Krupinska – Child Psychiatrist / Team Leader, Austin Hospital, CAMHS
- Victor Sant – Clinician, Austin Hospital, CAMHS
- Georgina Olakhanis – Social Worker, Austin Hospital, CAMHS
- Participating adolescents, families and clinicians of Eastern Health CAMHS
- Dr Peter Birleson – Director, Eastern Health CAMHS
- Dale Howard – Clinician, Eastern Health CAMHS

- Participating young women of Eastern/Northern Center Against Sexual Assault
- George Habib – Psychologist, Eastern Centre Against Sexual Assault
- Mari Barry – Manager, Eastern Center Against Sexual Assault
- Maria Katsikas – Social Worker, Eastern Center Against Sexual Assault
- Stephanie Kennedy – Outreach Worker, Northern Center Against Sexual Assault
- Participating young women of the IECHS Youth Social Work service
- Jenny Brice – Youth Social Worker, Inner East Community Health Service
- Pam Kemys – Director, Student Services, Methodist Ladies College
- Lisa Gatlif – Social Worker, Methodist Ladies College
- Graeme Kane – Psychologist / Team Leader, Eastern Drug & Alcohol Service
- Jim Dellis – Family Therapist, Eastern Drug & Alcohol Service
- Megan Phelan – Psychologist, Eastern Drug & Alcohol Service
- Participating adolescents & families of the Eastern Victims Assistance Program
- Clare Howard, Social Worker, Eastern Victims Assistance Program
- Michelle Earl, Psychologist / Manager, Eastern Victims Assistance Program
- Melinda Deanwood, Social Worker, Eastern Victims Assistance Program
- Dr Lyn Littlefield - Victorian Parenting Centre
- Administration staff of the Inner East Community Health Service
- Emma Lund, Child & Family Psychologist, *Youth*Psych Consulting

Many thanks to you all,

Simon, Lindy and Cindi

Part 1 Practice Guidelines

Section A Background to the Development of Practice Guidelines

1 Introduction

1.1 *Overview of SWATRAD project*

Purpose

With funding from the Ian Potter Foundation, the Inner East Community Health Service conducted a Wilderness Adventure Therapy (WAT) research and development project in the eastern metropolitan region of Melbourne during 2001 and 2002. The project aimed to determine specific client service gaps in a range of community and clinical agencies and schools, and then to attempt to address these gaps by trialling and evaluating tailored, service-integrated, *systemic* WAT programs for adolescent client and their families. This has enabled the development and documentation of practice guidelines for specific client types and service contexts.

Aims and objectives

The project undertook three broad tasks:

1. Survey key service providers in various adolescent and youth fields within the local region. Determine what gaps currently exist in their service with regard to adolescents requiring intensive intervention, and what specific group within their clientele might be well suited, or effectively treated by a wilderness adventure therapy intervention.

2. Based on these needs identified, and documented principles of best practice (Crisp, 1997), a service model (*Systemic Wilderness Adventure Therapy*) was developed that complimented, supported and enhanced each existing youth service involved in the project. Six different programs types were trialled and evaluated within the local service context of the Boroondara local government area and eastern metropolitan region. Clinical and community network knowledge was gained about systemic applications of wilderness adventure therapy practice within these services and Regions.

3. Using the data collected and the knowledge gained from the clinical WAT trials, an evaluation was made of this approach and practice guidelines were documented here in this report.

Specific objectives for the SWATRAD project were:

1. Research specific client and service needs. The following agencies participated in the project:
    - Eastern Drug & Alcohol Services
    - Eastern Metropolitan Victims of crime Assistance Program
    - Boroondara Youth Social Work Services
    - Eastern & Northern Centre Against Sexual Assault
    - Balwyn High School
    - Kew High School
    - Canterbury Girls Secondary College

- Austin Hospital - Child & Adolescent Mental Health Service
- Eastern Health, Maroondah Hospital - Child & Adolescent Mental Health Service

2. Tailor six, service-integrated programs in collaboration with each service according to:
    a. Client groups' specific therapeutic needs
    b. Known best practice and treatment efficacy
    c. Accessibility for clients
    d. Economic viability
3. Trial at least one program per client type (up to six program types) and evaluate the process and outcomes of each in terms of risk and protective factors, as well as consumer satisfaction.
4. Develop *Practice Guidelines* and make available as a reference book

Project setting

The project is based at the Inner East Community Health Service – Boroondara Center, Hawthorn and will be conducted in appropriate community, agency and outdoor venues. Partnership agencies are expected to provide supplementary referral, intake and case management support where appropriate. The project will offer the opportunity for professional development where agency staff are able to act as co-therapists.

Project staffing

The project Director was Dr. Simon Crisp, Clinical Child, Adolescent & Family Psychologist. In addition, Lindy Noblet was employed in the position of Wilderness Adventure Therapy Assistant. Cindi Hinch and Stephanie Redman were employed as Research Officers to assist with the evaluation.

Dr. Crisp's role involved co-ordinating the project overall, surveying key stakeholders, liaising with partnership agencies, conducting and supervising the WAT programs, supervising the evaluation component and producing this document with the assistance of Lindy Noblet and Cindi Hinch. Lindy Noblet, in the role of Wilderness Adventure Therapy Assistant worked under supervision of the project Director, and planned and organised logistics, and co-lead the WAT interventions.

Project management

A Reference Committee was established as a resource and support to the Project Director. This committee was chaired by the Manager of IECHS and included representatives from all partnership agencies, as well as Dr. Dorothy Scott from the Ian Potter Foundation.

1.2 *Rationale for the SWATRAD project*

Young people at risk draw significantly on the expertise of professionals from many service sectors. However, professionals frequently struggle to know how best to address the specific needs of high-risk groups. Existing youth programs that utilise innovative and non-traditional approaches do so often in isolation and with limited knowledge of how best to maximise their effect. There also appears to be an expansion in the demand for, and number of programs for 'at risk' youth over the last few years, for example, preventative wilderness adventure programs in schools and treatment programs in the mental health and drug and alcohol field. What many professionals report lacking in this field is access to expertise about evidence-based good practice, and in particular, the most effective methods for different client types. Finally, in discussing the needs for the professionalisation of the field in Australia, Crisp (1997) recommended the development of guidelines for the ethical and effective practice of wilderness adventure therapy.

1.3 *Additional sources of information and data used in the evaluation*

The SWATRAD project and these practice guidelines are a developmental progression from the 12 years experience with, and comprehensive evaluations of the Brief Intervention Program (BIP), Austin Hospital's Child & Adolescent Mental Health Service (Crisp, 2003a & Crisp, O'Donnell, Kingston, Poot & Thomas, 2000), and Barwon Health, Adolescent Mental Health Service GO WEST program (Crisp, 2002). Consequently, these two earlier studies are used to aid interpretation of results of SWATRAD data in Part 2 of the report.

1.4 *Defining Wilderness Adventure Therapy*

In order to understand what is involved in establishing, conducting and evaluating Wilderness Adventure Therapy, it is critical to understand how it is distinct from other forms of adventure experiences. Figure 1.1 below represents the various forms of adventure experiences based on Crisp's (1997) revision of Gillis, Gass, Clapp, Rudolph, Nadler & Banderhoff's (1992) continuum model.

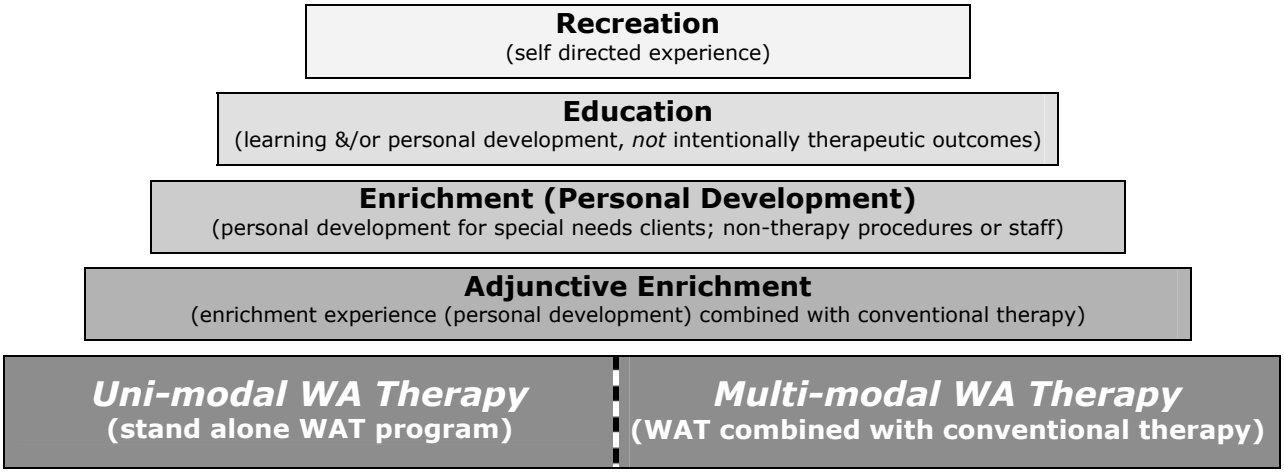


Figure 1.1: *The various forms of adventure experiences.*

These different types of adventure experiences require very different resources and procedures. The greater the needs of the client and the greater the intention for psychotherapeutic change, the more is required to effectively and safely undertake an adventure experience. Table 1.1 outlines the typical key defining and differentiating attributes of various types of adventure experiences.

Table 1.1: *Key defining and differentiating attributes of various adventure experiences*.

Attribute	***Recreation***	***Education***	***Enrichment*** *(Personal Devel.)*	***Adjunctive Enrichment***	***Uni-modal WAT***	***Multi-modal WAT***
Outdoor staff	✓	✓	✓	✓	✓	✓
Therapy staff[1]	-	-	-	-	✓	✓
Formal clinical assessment guides group selection	-	-	-	**?**	✓	✓
Individual, WAT specific, case-planing & goal-setting	-	-	-	-	✓	✓
Sequenced & structured program with multiple single day activities	-	-	**?**	**?**	✓	✓
Once-off experience / expedition	✓	✓	✓	✓	✓	✓
Integrated with case-management & conventional therapies	-	-	-	-	**?**[2]	✓
Termination case-planing & referral-on	-	-	-	-	✓	✓
Follow-up intervention	-	-	-	-	✓	✓

[1] Wilderness Adventure Therapy trained therapy staff; [2] WAT intervention is integrated with case-management but there are no concurrent conventional therapies.

Wilderness Adventure Therapy (WAT)

WAT is the application of a wilderness adventure intervention to clients who request, or consent to undertaking a 'treatment' program that aims to reduce a psychological, behavioural and/or family problem that is seriously affecting their functioning in life. Key features include:

- The intervention is based on an acknowledged relationship where there is an identified 'client' or consumer of the intervention, and an identified 'therapist' or 'therapy team' who provides the intervention
- There is a 'contract' for therapy that includes a) clients' rights and responsibilities, b) treatment goals, and c) a 'treatment plan' all of which are negotiated between client and therapist/team.
- The standards of practice conform to a) conventional ethical and legal frameworks, b) conventional therapeutic and clinical practices, and c) conventional adventure activity facilitation and safety standards
- A WAT program structure that has Intake, Treatment, Termination and Follow-up phases and includes the following components:
    1) Induction and selection of clients based on the principle of 'maximum benefit to the majority',

2) Clinical screening and assessment,
3) Development of a therapeutic relationship and contract,
4) Orientation to the program,
5) Activities selected, modified and sequenced in keeping with assessments and goals formulated for each specific client cohort,
6) The program has the capacity to be integrated with conventional therapies,
7) Treatment goals, progress and methods are reviewed and modified regularly,
8) Termination tasks such as referral-on, crisis response, further assessments required and post-treatment case-planning are ensured,
9) Client's goals are reviewed post-treatment,
10) the client is supported to identify on-going post-treatment goals and strategies,
11) The client's psycho-social supports are enlisted to assist with these goals in the post-intervention phase,
12) Follow-up interventions are put in place to confirm the continuance of the WAT outcomes, and trouble-shoot any difficulties.

- Those professionals delivering the WAT intervention a) hold the minimum required qualifications and skills as per any conventional therapy and outdoor program, b) have negotiated roles and responsibilities for a functional and effective team, c) adhere to policies and program procedures and team processes that safeguard the client psychologically and physically.

Systemic Wilderness Adventure Therapy (SWAT)

- Intervenes directly, with WAT components, at more than one level of a client's system: ie. peers, family, school, support workers, etc – see ACE program case study
- Change is embedded in the clients system, not just the individual client. SWAT assumes that change will be longer-lasting and pervasive if over a longer time period where all levels of the client's system are included directly in the intervention.

1.5 *Local context and brief history of Wilderness Adventure Therapy in Australia*

Wilderness Adventure Therapy has its origins in the USA as far back as 1901. Then 'tent therapy' was used at the Manhattan State Hospital following improvements in many psychiatric patients (including increased control over destructive habits, incontinence, etc.). In more recent decades, Outward Bound based programs (Colorado OB) using extended wilderness expeditions have shown benefit to both adolescent and adult patients (Davis-Berman & Berman, 1994a; 1994b). In Australia, the concept of *Adventure Therapy* first emerged in October 1994 when over 70 people from Victoria, South Australia and Tasmania attended the one-day conference entitled '*Bringing Adventure & Therapy Together in the Outdoors'* at the Austin Hospital, Melbourne (Crisp, in press, a). Two years earlier, the Brief Intervention Program (BIP) at the Austin Hospital's Child & Adolescent Mental Health Service had successfully incorporated what Crisp called 'Wilderness Adventure Therapy' into an evaluated intensive day-program treatment for adolescents with severe emotional, behavioural, social and psychiatric problems (Crisp, 2003a; Crisp & O'Donnell, 1998).

The first publications that reported on the practice of adventure therapy in Australia were Crisp & Aunger (1998), Crisp & O'Donnell (1998), and Mulholland & Williams (1998) – see Neill & Gray (2001). Previously, local conferences and literature referred to "outdoor programs for youth-at-risk or young offenders" but had never drawn from the concepts of adventure therapy, such as conventional therapeutic concepts or practices, eg. diagnostic assessment, etc (Reddrop, 1997). Another important contribution was the 3-month field

study conducted by Crisp in 1996 - *International Models of Best Practice in Wilderness and Adventure Therapy: Implications for Australia* (1997). Additionally, in 1996, the Austin Hospital's Brief Intervention Program began offering formal training through the *Wilderness Adventure Therapy Internship* program and structured training through the *Introduction to Wilderness Adventure Therapy* course.

After this, the First International Adventure Therapy Conference was held in Perth in 1997 (Itin, 1997) which prompted a pervasive use of the term 'adventure therapy' and 'wilderness therapy' (as well as adventure/wilderness therapist) to describe many programs which had previously referred to themselves as "outdoor programs for youth–at-risk" or similar. Unfortunately, however, this name change rarely, if ever, coincided with the adoption of critical therapeutic elements such as the involvement of therapeutic professionals, therapeutic procedures or practices, such as those described by Crisp (1997).

More recently, a Wilderness Adventure Therapy program was established in the out-patient service of the Barwon Health Adolescent Mental Health Service in Victoria – *GO WEST* in 2000-2001. This evaluated program furnished some very strong clinical benefits (Crisp, 2002). However, funding was re-allocated and the program ceased after two years of operation. There has been a second and third International Adventure Therapy Conference in Germany in 2000 and Canada in 2003 respectively, and a South Pacific forum of therapeutic adventure practitioners in 2002. Interestingly, the latter forum was actually composed of very few practitioners (as there are in fact very few adventure therapy programs and practitioners), but the majority of people were involved in an array of alternative programs that could be most accurately described as 'outdoor, adventure and creative methods personal development programs'. Finally, the most recent development has been the establishment of the Australian Wilderness Adventure Therapy Accreditation Scheme by *Youth*Psych Consulting (Crisp, 2002c). This scheme provides a comprehensive combined training program in the specialized methods of WAT for both adventure leaders and therapeutic professionals and at present appears to be expanding nationally as well as to New Zealand. Further, at the time of writing, Crisp convened an Australian and New Zealand working group to develop a proposal for the development of a professional Association.

1.6 *Rationale for Wilderness Adventure Therapy: Brief review of the literature*

Methodological obstacles to conducting controlled evaluations of wilderness and adventure therapy make conclusions from research in this area difficult. However, the majority of outcome studies do suggest positive outcomes. In a meta-analysis of 79 wilderness / adventure programs for clinical and non-clinical populations in 43 studies, Cason and Gillis (1994) found an average effect size of 0.31.

The number of empirical studies which evaluate the clinical outcome of wilderness and adventure therapy while small nonetheless suggest a range of clinical improvements. For example, clinical populations have shown benefits in behavioural symptoms and locus of control with in-patient adolescents (Berman & Anton, 1988). Further, in a controlled study of adolescent in-patients, Witman (1987) found significant increases in self-reported trust and cooperation. In a study of the effects of wilderness therapy on Borderline personality disordered adolescents, Nurenberg (1985) found improved impulse control, autonomy, separation and individuation, depression and anxiety. In an adolescent out-patient sample, self-reported locus of control, behavioural symptoms, self-efficacy and self-esteem were improved and maintained at one to two year follow-up (Davis-Berman & Berman, 1989; 1994a). Further, observed and self-reported cooperative behaviours in a sample of seriously emotionally disturbed adolescents were found to increase following wilderness therapy (Sachs and Miller, 1992). With delinquent youth, Gaus (1982) found significant reductions in drug behaviour and legal involvement. Similarly, Gillis and Simpson (1991) found reductions on 7 MMPI scales and increases in self-esteem, and self,

peer and staff ratings of behaviour in a wilderness-adventure therapy program for delinquents. More recently, Australian studies suggest strong and consistent improvements in severe mental health symptoms, particularly depression, in addition to increases in protective factors (Crisp, 2003a; 2002).

In addition to the encouraging literature on empirical studies, theoretical justification for the use of wilderness and adventure therapy with adolescents further strengthens the argument for developing the field more. For instance, adolescent developmental imperatives of independence and competence, problem-solving and social self-efficacy make peer group based wilderness and adventure interventions ideal and probably superior to other alternatives for many adolescents, especially those reluctant to engage in, or who are treatment resistant to conventional therapeutic interventions. Indeed, there is some evidence to suggest wilderness adventure therapy holds unique scope to readily engage particular types of adolescents who rarely or voluntarily become involved in any form of behavioural change intervention or counselling for problems (Crisp, 1997).

1.7 *Research needs: outcome and process evaluation, research methodology*

Previous research indicates potentially valuable therapeutic outcomes from WAT types of interventions (Cason & Gillis, 1994). Newes (2001) highlights the need to bring rigorous evaluative research to the area of WAT, in terms of both meaningful treatment outcomes as well as a better understanding of the process involved in what it is in WAT that brings about therapeutic change. More broadly, contemporary literature on adolescent mental health increasingly emphasises a *risk and resiliency* model of intervention (Crisp, 2003a). This model emphasises a two-pronged approach to treatment of mental health problems. This involves reducing known risk factors in addition to increasing known protective factors. If Wilderness Adventure Therapy is to gain credibility, it must adopt this contemporary framework. However, little research using this paradigm currently exists. Consequently, undertaking research using this framework is a high priority.

Spirito (1996) notes the difficulty in conducting rigorously controlled studies into risk-factor based interventions with difficult to engage populations. He suggests that research will always be hampered for this reason and that research designs needs to take account of the inherent difficulty in collecting data.

Of particular interest with Wilderness Adventure Therapy was to better understand the needs of female adolescents. Crisp (2003a) found no significant gender differences in treatment outcomes from WAT. Further, the field stereotypically views WAT as most suited to male adolescents and less so with females. Consequently, it was of interest to better understand the processes and outcomes for female adolescents, and how programs should be adapted to best engage and treat them.

2 Best Practice in Wilderness Adventure Therapy: A Systemic Model

2.1 *Overview*

In 1996, Crisp (1997) developed 12 principles of Wilderness and Adventure Therapy best practice. These principles were based on an extensive, 3-month on-site study of 14 diverse wilderness and adventure therapy programs in the United Kingdom, the USA and New Zealand. The following principles of best practice are discussed in relation to the SWATRAD project in the following sections.

1. Systemic Framework
2. Integration with other interventions
3. Therapist Skills / Therapy Teams
4. Assessment Processes
5. Treatment Planning
6. Flexibility
7. Monitoring of Client Outcomes
8. Theoretical Paradigm
9. Risk Management
10. Ethical Issues
11. Research
12. Training

2.2 *Systemic framework*

Informed by the specific needs of an agency's client group, a *systems* model was developed for each participating agency. A model considered effective in a mental health out and day-patient settings (Crisp, 2002; Crisp & O'Donnell, 1998) was adapted to a community health context. Typically, this involved the development of an integrated program that intervened on up to three levels of the client's psychological and social system. For instance, a wilderness adventure component or other appropriate intervention for (a) the identified client (youth), (b) parent, family or caregiver, and (c) other involved party such as school, or support agency.

2.3 *Integration with other interventions*

Partnership Agencies were involved in (a) recruitment of clients from the agency's existing client base, (b) supporting assessment for, and induction into the program and, (c) providing adjunctive therapeutic support, case-management and follow-up as needed.

2.4 *Therapist skills, therapy teams*

The WAT Team included (1) the SWATRAD Director ('dual trained' clinical psychologist with extensive adventure leadership training and experience), (2) the WAT Assistant (adventure leader with extensive experience with 'at-risk' youth) and typically an agency staff who was a therapeutic professional (psychologist, social worker, etc.). Roles were negotiated for each team, and in relation to every aspect of the program.

2.5 *Assessment process*

For every program, every adolescent (or family for family programs) was screened individually through a clinical interview with the SWATRAD Director. Additionally, where available, agency staff would participate in this assessment process and frequently provided important clinical background information. From this process, a formulation of the individual needs of the client were made and guided program goals and outcomes sought, as well as alerting the Team to broader system (family, school, etc.) issues, as well as medical and other health or social welfare needs.

2.6 *Treatment planning*

A detailed and individualised program treatment plan was developed for each client (and/or family). This was reviewed at the end of each session and modified as needed.

2.7 *Flexibility*

The SWATRAD project emphasised flexibility in program design and implementation to adapt the WAT methodology to suit each particular service context and client group once assessed and selected. Small group sizes, and extensive experience of the WAT staff allowed therapeutic approaches to be quickly modified to suit individual needs at the time.

2.8 *Integration*

WAT assessment information and treatment goals were dovetailed with broader agency assessment information and counselling goals to provide an integrated intervention approach. Frequent review and hand-over meetings with agency staff were held to ensure a reciprocal exchange of information about client progress and therapeutic strategies used.

2.9 *Monitoring of client outcomes*

Extensive clinical and psychometric evaluation was completed pre and post program to ensure clients progress was satisfactory. Three perspectives: adolescent, parent and clinician or agency staff were used to gain a global perspective on the adolescent's psychological and social status. Further, 2-3 month follow-up clinical and psychometric evaluation was undertaken to ensure outcomes were maintained (see Part 2 – Project Evaluation).

2.10 *Theoretical paradigm*

A comprehensive therapeutic rationale and theoretical paradigm about psychological and behavioural change was well articulated, and is described in this document. In keeping with contemporary clinical frameworks, qualified staff delivered established therapeutic methods throughout the WAT intervention.

2.11 *Risk management*

Physical risk-management procedures were in keeping with industry and Department of Education & Training standards and guidelines. Psychological risk management plans and procedures were developed, where necessary for particular individuals, and were reviewed regularly. Procedures for management of medical emergencies, critical and traumatic incidents, and psychiatric crises used by *Youth*Psych Consulting (Operations Manual) were adopted for this project.

2.12 *Ethical issues*

WAT staff, agency staff and project administrator (Inner East Community Health Services Manager) were briefed thoroughly on the practical application of ethical issues unique to this type of therapy through orientation sessions prior to each agency's program development.

2.13 *Research*

The project had a central aim to extensively trial and evaluate the WAT programs it provided, which in turn, were based on the available evidence of effective models and methods.

2.14 *Training*

The project partnership agencies and staff participated in in-housed orientation to WAT methods, and all agency staff were offered access to training courses which were part of the Australian WAT Accreditation Scheme (Crisp, 2003c).

3 Rationale for Key Target Groups

3.1 *Epidemiology of mental health problems in adolescence*

The prevalence (presence at one point in time) of different mental health symptoms varies from disorder to disorder and varies between males and females. Across the whole Australian population of 13-17 year olds, there are no real differences in the total number of problems between males and females, but there are some differences in the rates of different disorders each sex experiences.

For males, the prevalence of all mental health problems is similar regardless of geographical region (metropolitan = 14.7%; rural = 14.0%). However, for females the prevalence of mental health problems is less common in rural regions - 10.6% - compared to metropolitan areas 15.8% (Sawyer, Arney, Baghurst, Clarke, Graetz, Kosky et al., 2000).

Table 3.1: *Different problems and clinical disorders for males and females (aged 13-17) in the whole population (rank order in brackets)*

Type of problem (self rated)	**Males (%)**	**Females (%)**
Delinquent behaviour	11.5 (1)	12.4 (1)
Aggressive behaviour	6.2 (5)	9.1 (2)
Attention problems	7.1 (2)	6.6 (4.5)
Anxious / depressive symptoms	6.7 (3)	6.8 (3)
Somatic (physical) complaints	6.3 (4)	6.6 (4.5)
Social problems	3.4 (6)	3.5 (6)
Thought problems	3.3 (7)	2.7 (8)
Withdrawn behaviour	3.1 (8)	2.9(7)
Total	**47.6**	**50.6**
Type of Disorder (parent rated)		
Depressive Disorder	4.8	4.9
Conduct Disorder	3.8	1.0
ADHD	10.0	3.8
Total	**18.6**	**9.7**

(reproduced from a study By Sawyer et al. of 4,500 children and adolescent across Australia (2000)

In any 12-month period, for males, 10.2% will have thought about suicide, 8.9% will have made a plan, and 2.7% will have made an attempt (1.2% requiring treatment). For girls in any 12 month period, 13.8% will have thought about suicide, 10.5% will have made a plan, and 5.7% will have made an attempt (0.5% requiring treatment). Further, 20% of all adolescents will have been abusing alcohol (≥5 drinks in a row), and 11% will have been using marijuana. 26% of girls (7.4% boys) will have been exercising to lose weight, and vomiting and laxative abuse will be occurring in 3% of all girls (0.8% boys).

Among other variables, family structure is also associated with differences in prevalence:

- In step/blended families, depression is twice as common and conduct disorder is 3 times as high for both males & females.
- In sole parent families, depression is 4 times higher for females, and conduct disorder is twice as high for males.

3.2 *Mental health co-morbidity: Risk factors*

In Sawyer and colleagues' Australian population based study (2000), 23% of all youth with Depressive Disorder, Conduct Disorder or ADHD also meet the criteria for another disorder. Males have higher co-morbidity (27%) than females (15%).

Other literature has found that risk factors such as behaviour disorders, substance abuse, personality disorder and psychiatric disorder have a tendency to cluster together, and often co-occur with depression (Marttunen & Pelkonen, 2000). Also tending to cluster with depression is a history of suicidality in the family or social network, interpersonal loss or separation, sexual or physical abuse, family dysfunction and poor family cohesion. However, and more specifically, the literature is consistent with the finding that, aside from prior suicide attempt, depression (with hopelessness) pose the greatest risk for suicide attempt.

Adolescents are a highly co-morbid population. Two conclusions can be drawn from this. First, that the presence of one major risk factor increases the likelihood of others co-occurring. Second, it can be assumed that the greater the co-morbidty, or number of co-occurring risk factors, the greater the risk and therefore need for intervention.

3.3 *Risk and protective factors model*

A risk and resilience approach allows a comparison of risk and protective factors based on empirical estimates of their predictive value. The notion of risk factors stems from an epidemiological paradigm (Wagner, 1997). Compas, Hinden and Gerhardt (1995) give a definition that has consensus in the literature. Risk factors are "...those characteristics of the person or the environment that are associated with an increased probability of maladaptive developmental outcomes." (p. 273). The model assumes that a quantitative accumulation of risk factors increases the total risk of the behaviour occurring. On the other hand, Compas, Hinden and Gerhardt (1995) state that "Protective factors are hypothesised to interact with sources of risk such that they reduce the probability of negative outcomes under conditions of high risk but do not show an association with developmental outcomes under low risk" (p. 273). Protective factors are personal characteristics or contextual factors that do not constitute the norm for the population under consideration, and reduce the risk of developing the disorder, or problem in question (Osborn, 1990). Specifically, a protective factor is assumed to attenuate a known risk factor. The implication of this model for interventions with adolescents who present with high numbers of risk factors is that therapeutic benefit can be gauged in terms of reduced risk, where risk factors are minimized, or conversely, protective factors are maximized.

4 Rationale for a Systemic Wilderness Adventure Therapy Service Delivery Model

While the prevalence of mental health problems for adolescents is around 20-25%, of those with a mental health problem, only 1 in 4 receive any form of professional assistance, including counselling in schools (Sawyer et al., 2000). Clearly, these statistics suggest the need for accessible, early intervention targeted at identified, indicated high risk groups. This project aimed to determine the viability of the provision of a continuum of treatment from clinical settings to community counselling services, through to early intervention within the usual environment of the adolescent - the school.

A *Systemic* Wilderness Adventure Therapy approach was believed to be a highly flexible service delivery model, that is capable of providing both early intervention for indicated 'at-risk' groups as well as a treatment modality for groups resistant to other forms of treatment. It was the aim of this project to investigate the scope for jointly servicing school welfare services, community health and counselling and specialist mental health care. In this way, the project emphasised the establishment of a whole-of-region capacity for an inter-sectorial response to psychological, social and mental health problems. Importantly, the project investigated the potential to treat early before greater social and family disruption occurs and severity increases to the point of requiring clinical out-patient or in-patient treatment. Key systemic components of SWAT in the three levels of intervention are listed in Table 4.1.

Finally, in terms of suicide prevention, the Victorian Premier's Taskforce on Suicide Prevention (1997) explicitly indicated the value and potential for *systemically orientated* wilderness adventure therapy service models in the engagement and intervention of risk factors for suicide in adolescence (pages 46; 67; 69; 103; 108):

> *"The Taskforce heard evidence of the positive benefit of wilderness-based problem-solving and adventure experiences… especially if they (young people) have not had the opportunity to overcome adversity and experience success… The Taskforce was convinced such initiatives have most benefit when they form part of a broader program of personal development… Such programs are of optimum benefit where the experiences gained though the wilderness program can be reinforced in the environment to which the participants return."* (page 67).

Indeed, one of their recommendations was that the Wilderness Adventure Therapy based mental health day-program model that was developed at the Austin Hospital's Child & Adolescent Mental Health Service (Crisp, O'Donnell, Kinston, Poot & Thomas, 2000) was "an example of best practice", and should be replicated statewide (p 103). Recommendation 7.9 stated that:

> *"The State Government support the Department of Human Services (Health) and the Department of Education to establish and evaluate a program in each (health) region along the lines of the Brief Intervention Program (BIP) linked to a Child & Adolescent Mental Health Service…"*

The endorsement of this service model reflects a wide community and policy development support for this form of intervention as a front-line approach in addressing suicide risk factors such as mental health problems and depression.

Table 4.1: *Key systemic elements within program tasks at each level of intervention.*

Key Program Tasks	**Early Intervention**	**Community Intervention**	**Clinical Treatment**
Recruitment & Intake	Market directly to clients & parents identified by teachers; selected teachers pair-up with each client	Via agency case-worker or client's counselor; counselor participates in sessions	Via CAMHS clinical case-manager
Assessment[1]	By WAT clinician during intake interview; family and school systems issues assessed during parent-adolescent and parent-teacher sessions	By WAT clinician in conjunction with agency worker or counselor; family systems issues assessed during multi-family sessions	By CAMHS clinical case-manager in conjunction with WAT clinician
Case management	Co-ordinated by WAT staff utilizing existing resources, ie. school welfare staff, school counselors, CAMHS – weekly feedback	Assumed by referring agency case-worker with support from WAT staff; hand-over liaison during WAT briefings	CAMHS clinical case-manager liaises weekly with WAT staff – reciprocal feedback
Major Systemic Program Component	Parent, parent + adolescent, parent + teacher, and parent + adolescent + teacher WAT group sessions; 1 day family rafting expedition	Multi-family WAT program structure - (5 evening sessions); 1 day family rafting expedition; agency worker assistant therapist in WAT components	Multi-family WAT program structure (evening sessions); 1 day family rafting expedition / adventure challenge day
Referral on	Initiated and triaged by WAT staff with assistance from school welfare staff following reviews mid-program and at termination	Case reviews mid-program and at termination, referrals initiated jointly by WAT staff and agency case-worker	Case reviews mid-program and at termination - recommendations made by WAT staff to case-manager

[1] Clinical biological-psychological-social assessment by a qualified clinician

4.2 *Participatory model of intervention*

A significant aspect of the capacity of WAT to engage reluctant groups is the *participatory* emphasis of this type of intervention. This approach emphasizes an active, *participatory* response from consumers rather than a more passive *treatment* stance that is less able to capitalise on the self-motivation of the client. Being involved in a peer-group based program, they undertake seemingly 'normal' activities ('camping' and activities that have a 'recreation' appearance) that presumably allows the adolescent client to feel a 'in control' of their treatment. The notion of 'self-help' in contrast to being 'treated by' and adult holds great appeal to adolescents who are tackling the normal developmental tasks of greater independence and self-sufficiency.

4.3 *Multi-systemic*

The project is unique in that it assertively engages the clients' broader systems such as family, teachers, and support workers structurally within the intervention. This approach is argued to be critically important to be able to impact the etiologic and maintaining factors common in the majority of adolescent mental health problems such as family dysfunction, peer relationships and connection to support systems such as schools and community-based agencies. In terms of risk factors, many of these are affected through family and peer relationships. Conversely, to most effectively increase protective factors, the adolescents' functioning in, and relationship to their social system (family, school, support

agencies) need to be enhanced. This is presumed to occur through including the adolescent's family, school and community supports *directly within* the intervention (refer to specific program timetables for detail).

4.4 *Developmentally appropriate*

Additionally, Systemic Wilderness Adventure Therapy provides substantial advantages over current treatment approaches by being less stigmatising and more developmentally appropriate for adolescents and families. Anecdotally, it holds great potential to engage reluctant and treatment resistant adolescents and families in their usual environment and by enhancing normal social and emotional development (Crisp, 2003a). This occurs by providing experiences that build and enhance problem-solving and social skills, tolerance of adversity, and affect regulation and anxiety management, thus fostering resilience very broadly within the adolescent, and embedding skills and behaviour change within the context of their social system.

4.5 *Preventative and additional benefits*

Wilderness Adventure Therapy brings with it similar benefits to outdoor education and adventure learning (Miles & Priest, 1990). Such benefits for 'at-risk' groups can bring about a strengthening of normal psychological and social development. Indeed, it is often delays and deficits in normal development that are predispose a person towards mental health, and other problems. Additional benefits that can be assumed to occur include: increased understanding of inter-personal relationships, teamwork and group roles, improved self-concept and self-esteem, effective problem solving skills, adaptation and flexibility, independence, responsibility, and leadership to name just a few. It is a unique aspect of Wilderness Adventure Therapy as a treatment that it provides for both treatment of problems while simultaneously promoting development and health generally.

5 Rationale for Target Intervention Outcomes – Resilience Model

The literature is clear about the need to approach intervention aims along a risk and resilience model. This model is briefly outlined below.

5.1 *Reducing risk factors*

The literature suggests that adolescent problems are more syndromal and heterogeneous than is the case for adults. Not surprisingly, risk factors for adolescent mental health problems are often shared between the different disorders. Therefore, where risk-factors that applied for a number of disorders occur, and are amenable to modification, they should be targeted for intervention. The following are key high frequency, shared risk factors:

- Key mental health symptoms: aggressive and delinquent behaviour, anxiety and somatic complaints, social problems, social withdrawal, and thought and attentional problems
- Depressive symptoms and suicidal ideation
- Life threatening attitudes and behaviour that facilitate self-harm and suicide
- Non-productive coping behaviour

Evaluation of treatment outcomes should be concerned with the measurable reduction of these risk factors. In addition, good intervention outcomes should also include increasing protective factors, as outlined in the following section.

5.2 *Increasing protective factors*

A central aspect of a *systemic* approach is the aim of developing a resilience capacity by building peer, family, school and community cohesion. Specifically the following factors should be targeted to increase among participants.

- Self-esteem
- Productive coping skills
- Family functioning
- School functioning: social competence and school adjustment
- Social connection & trust: peers, family, school
- Self-efficacy: Help-seeking, problem-solving, teamwork, stress-management, friendships
- Ability to express feelings
- Optimism
- Perseverance

Further, it is expected that increases in these protective factors will occur when adolescents have adapted effectively to carefully measured stressful experiences or adverse conditions. If done within the limit of the adolescent's ability to cope with or master these stressors, it is expected that over time, this will lead to 'stress-inoculation'. This is expected to enable the adolescent to be protected against the negative effects of future stressful life events, and, or to reduce the deterioration of functioning that may result from any recurring mental health problems.

Section B Indicated Early Intervention

6 Students at Risk of Educational Disengagement or Failure

Target criteria for indicated early intervention in schools were those students most at-risk of not completing Year 10 (not due to academic capability). Sixteen students in all, from three schools, presented with a range of mental health problems due to psychological disorder, social and family dysfunction. The majority presented with clinically significant levels of symptoms. Many had poor attendance and a history of abuse or neglect. The two Adventure Challenge Experience (*ACE*) programs aimed to increase school retention in these students at risk of educational non-completion or school failure by reducing risk-factors and simultaneously increasing protective factors. The first ACE program drew from three schools which posed significant problems in program co-ordination and liaison with the three schools simultaneously. The second program recruited students form one school only which eventuated in a far better coordinated and managed program.

6.1 *Issues of integrated SWAT service provision in schools*

Establish support from the school

- Understand school culture: a school's core business is education. Consider how to introduce a mental health framework within an education need framework. For example, risk of school failure as a simultaneous mental health risk factor, and impact of mental health on educational progress.
- Be aware of school welfare policies, services & disciplinary policies and procedures, and determine ways to create a 'fit' between the program and
- school frameworks.
- School culture - "program" perception and expectations: students & teachers
- Educate staff about the benefits of an out-sourced service: specialised expertise, clearer boundaries, distinct high profile, engage whole school community such as families/parents

Designing a service integrated program

- Consider the day of the week & sequence in school timetable: classes before and after, alternate days to minimise disruption to learning versus consistency and predictability.
- Consider which school term? opportunity for follow-up
- Consider group session venue - size, distractions, location, availability, students' associations with the room, noise levels in/out

Documentation

- Information sheet (or handbook such as Noblet & Crisp, 2004) for teachers on how to support students' involvement in the program: Non-stigmatising way of engaging with student around their involvement, confidentiality, other school commitments, expected outcomes, educational and therapeutic value of program, framing student's involvement to peers.
- Consider avenues for maximizing benefits across school community, eg. school newsletter, letters from students to Principal or funding bodies, etc.

Recruit, engage, assess and select adolescents

- Consider recruitment strategy and criteria that draws from the broadest possible pool of referrals.

- Consider the impact of peer relationships, stigma, broader peer group perceptions or program and participants and those not accepted in to program.
- In selecting a group, consider pre-existing relationships and relationship histories and impact of forming new relationships through the program on the broader peer group.
- When selecting components of the program, consider the goals of group members
- Form the group with similar ages.
- Identify what the predominant presenting issues are.
- Keep the gender ratio balanced in the group.
- Identify at what cognitive level group members are functioning and modify/select material appropriately.
- Establish group rules at the onset and reinforce these throughout the program.

Orientate and educate support staff

- Educate staff about the value of the program, benefits for them
- Informing staff about indicators for suitability for referral (eg. risk factors versus necessary supports)
- Educate school staff about how to present the program that conveys a positive, non-stigmatising image of the program
- Clarify boundaries of confidentiality: school/student/parents/therapists
- Circulate documentation such as the *Handbook on Integrating Wilderness Adventure Programs in your School* (Noblet & Crisp, 2004).

Engage families

- Consider history of family/parent relationships to school/teachers and other students

Determine evaluation protocol

- Include school attendance stats, feedback from class teachers, etc

Other service delivery tasks

- Establish triage, referral out and potential follow-on services (eg additional group work) during set-up phase

Follow-up, program review and sustainability of outcomes

- Consider a presentation of certificates to students during assembly

6.2 *Wilderness Adventure Therapy clinical considerations: 'in the field' issues*

a) Address difficulties that arise regarding confidentiality peers/teachers & SWC and parents
b) Establish norms of inclusion to ensure the group builds connection for all students
c) Create a broad definition of success. Emphasize and focus on individual achievement and competence in a broad range of ways: completion, social support, problem solving, leadership, commitment, perseverance, etc.
d) Be aware of transference relating to teachers, be prepared for very challenging 'testing of limits' or over-compliance, and students' difficulty in forming a 'therapeutic' and 'collaborative alliance' versus 'adult authoritarian' or 'peer equality' based relationships, testing of psychological boundaries
e) Be conscious how instructions may have strong associations with classroom teaching
f) School policy conflicts with program practices, eg. smoking. Consider establishing specific rules to create some separation from normal school setting? Be careful how

this may impact on behaviour and attitude at school, seek parental permission for smoking if non-smoking rule is unrealistic.

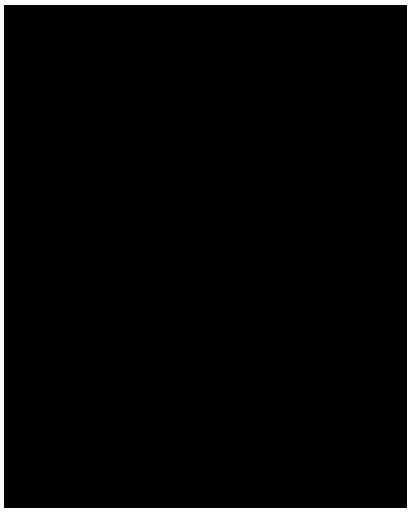
g) Assess the need to liaise closely with parents – what are their expectations? Be clear about when, and on what issues they expect to be informed or involved.
h) Address students' motivation to do the program versus time off school
i) Teacher involvement, especially their roles, need to change 'stance' and approach, boundary issues, clarify enforcement of school rules
j) Student's prior experience with school camps: peer victimisation, ostracising, coercion to participate, competitive culture, lacking support from teaching staff
k) Need to address conflicting school social-emotional environment, eg. superficial relating and excessive compliance in some students.
l) Consider, educate yourself about, and bring in broader peer group issues, if appropriate
m) On extended expeditions, need to prepare students to return to school, especially peer group, and address extended peer group issues/dynamics

6.3 *Additional resources*

Cumming, T., Littlefield, L. & Jackson, M. (2000). *Identification of Students Who are at Risk of Dropping Out of School*. La Trobe University, Melbourne.

6.4 *Program case study – The 'Adventure Challenge Experience' (ACE) program*

Client recruitment and assessment



Year Level Co-ordinators and Student Welfare Co-ordinators were asked to nominate those students who they believed were at greatest risk of not completing the current year of school (mostly Year 10). These students were then approached by the teacher to determine their interest, and were asked to attend an information session, and gain permission from their parents to do the program. Following the information session, students who expressed continued interest were asked to attend an individual interview with the SWATRAD team. During this interview an abridged clinical assessment[1] was undertaken and goals were negotiated for the participant. Participants were also asked to nominate a teacher they felt who understood them and would be willing to support their participation in the program. Following the interview, participants were asked to complete psychometric measures of psychological social and school functioning. Following all interviews, a group was selected based on the principle of 'maximum benefit for most'. Students were then notified of their place in the program.

[1] The clinical assessment was undertaken by an experienced specialist clinical child, adolescent and family psychologist. This included developmental, family, schooling and psychological history as well as a mental status examination, including risk assessment where indicated.

Program structure

Table 6.1: *ACE program Term 3-4 2001*

WEEK	DATE	TIMES	ACTIVITY
-4	**August** Thurs 2nd		Appraisal of referrals
-3	Thursday 9th		SWC Contact parents
-2	Tuesday 14th	6-7pm	Parent & student Information Session
	Thursday 16th	9-3	Student interviews
	Friday 17th		(additional student i/vs)
-1	Thursday 23rd	Lunchtime	Teacher information session
1	Monday 27th	3.20-5.00	Student Introduction group
		5-6.30	***Teacher & Parent*** Introduction Session
	Thursday 30th	9-4pm	**Day Activity: Peak Ascent**
2	**September** Mon 3rd	3.20-5.00	Student group
		5-7	***Student, Teacher & Parent*** Session
	Thursday 6th	9-4pm	**Day Activity: XC Skiing**
3	Monday 10th	3.20-5.00	Student group
		5-6.30	***Parent*** Session
	Saturday 15th & Sunday 16th	9am -> -> 4pm	**Overnight Expedition: Strathbogie Ranges**
4	Monday 17th	3.20-5.00	Student group
		5-6.30	***Teacher & Parent*** Session
	Thursday 20th	9-4pm	**Day Activity: Abseiling**
5	Monday 24th	3.20-5.00	Student group
		5-6.30	***Parent*** Session
	Thursday 27th	9-4pm	**Day Activity: Caving**
6	**October** Tues 2nd to Saturday 6th	10 -> -> 4pm	**Major Expedition: Coastal Wilderness Hike**
7	Monday 8th	3.20-5.00	Student group
		5-6.30	***Parent*** Session
	Thursday 11th	9-4pm	**Parent, Student & Teacher Day: Rafting**
8	Monday 15th	3.20-5.00	Student group
		5-6.30	***Teacher & Parent*** Session
	Friday 19th	TBD	**Graduation**
9	Thursday 25th	TBD	Handover to Teachers/SWC – Review
	December Thursday 12th	TBD	Reunion / Follow-up

Liaison and case-management

Written consent was gained from adolescents and their parents for exchange of information between SWATRAD team the school SWC and any external agencies such as Child & Adolescent Mental Health Services (CAMHS). Regular hand-over meetings were scheduled on a weekly or fortnightly basis with the schools' SWCs and other agencies as was clinically indicated. Crisis risk management and protective issues were responded to by and managed by the clinical child, adolescent and family psychologist on the SWATRAD team in close liaison with the school SWC. Where the adolescent was a pre-existing client of a counseling service, liaison with appropriate staff, and sharing of roles also occurred.

Therapeutic methods

The therapeutic methodology used was facilitated by the clinical child, adolescent and family psychologist of the SWATRAD team. During the wilderness adventure therapy components activities were framed according to individual's goals and the themes of the group. They were then debriefed using the Wilderness Adventure Processing System (Crisp, 2001) that utilizes individual structured tick-the-box surveys. This is then used to lead the group into discussion about emerging themes. The after school peer group and parent and teacher sessions utilized a range of active *Project Adventure* problem solving initiative activities initially then moved into a process-based group psychotherapy framework as individual issues and group issues arose. In all components, insights and new behaviours from adolescents, parents and teachers were identified, and transfer of these from the group or wilderness adventure setting to the normal environment was supported. Consequently, much discussion focused on current peer relationships, and school and family issues which then informed the framing of wilderness adventure activities or set themes for group discussions.

Integration

The support teachers the student nominated participated in group work with students and parents. This allowed an important flow of information between the school, family and student. This 'wrap around' model of support for the student meant that changes and issues arising in one area or system were easily integrated into the program as a whole. Changes in one system were supported by complimentary approaches in the other systems. Similarly, parents and family members were included in these multi-system groups so changes in the group and at school could be reinforced in the home environment. This process also established important lines of communication between class teachers, parents, students, school welfare staff and the SWATRAD team. This aspect of the program was thought to be one of it's most powerful for sustaining change and brining about maximal effect of the program in the most important areas of the student's life. It ensured that the program was not an isolated event where any changes or issues were unknown to significant others and disappeared once the program finished.

Referral and follow-up support

At the conclusion of the program handover meetings were held with the school welfare staff and any external counseling services that were involved. During the program several adolescents were referred to the CAMHS and handover meetings were held with the adolescent's case manager. A follow-up activity was negotiated with participants and during this time, each participant was reviewed as part of the group process and individually if indicated. This was to ensure that any unresolved issues were being adequately dealt with, and to detect any new clinical issues that may have emerged in the interim.

Clinical outcomes

The following clinical outcomes were observed immediately at the conclusion of the program, after a short-term follow-up and at long-term.

Immediate post-program outcomes

- All 16 participants had completed the program
- Clinically significant reductions in depression, anxiety and aggressive behaviour problems
- Clinical significant reduction in suicidal symptoms, including self-harm in all participants except one who was referred-on for individual therapy
- Two referrals were made to the local Child & Adolescent Mental Health Service
- Majority of parents reported improved mental states, relationships and overall function.
- Majority of parents reported improved family communication and co-operation
- Teachers reported improved mental states, increased motivation and social interaction, improved student-teacher relationships
- Here were no negative outcomes reported by any source

Short term (3 month follow-up)

- All students had successfully completed the Year 10 level of study and were permitted to progress in to Year 11
- Gains made post-program were reportedly continued or more greatly improved
- Teachers reported continued positive school adjustment, school performance and improved social relationships
- The one student with continued suicidality reported substantially reduced suicidal symptoms

Long term (2 year follow-up with teachers)

- All students successfully completed Year 12 – one student had unknown outcomes having moved interstate
- All gains made had continued at post-program levels or better according to teachers

Section C Intervention with High Risk Groups in the Community

7 Domestic Violence

Target criteria were client families of the Eastern Victims Assistance Program (EVAP) with one or more adolescent children who had experienced substantial domestic violence that significantly affected the adolescent and family's ability to function. It was seen as a priority with this issue to intervene with the client's family system. It was assumed that any adverse effects from being exposed to domestic violence could effectively be addressed by intervening at the locus of domestic violence – the family. Such family-based trauma has been found to have substantial impact on adolescent psychological health and the family's success in moving on from such trauma. It can also be a significant factor in the development and maintenance of mental health disorder or social and school functioning. EVAP counsellor / case-managers facilitated referral to the program which was run from a women's community health service that was close to all families attending. EVAP provided the support of an assistant therapist who liaised with other referring EVAP case managers and the families. Engagement of clients to the program was facilitated by support from EVAP staff during the information session. Three families were referred to, and began the program. Two families completed the program. There were a total of 14 participants who began the program, including 6 adolescent children. All families had experienced domestic violence from male adults; consequently there were three mothers as the only adults in the multi-family group.

7.1 *Issues of integrated SWAT service provision*

Establish support from services involved

- Provide information for referring counselors and enlist their assistance in designing the program to be feasible and accessible for the target client group.
- Provide guidance about the value, limits and constraints of a family based WAT program as an adjunct to counselling services they provide, especially in relation to addressing underlying family systems issues.
- Be clear about the types of families who would and would not be suitable, and the importance of and need for active support for the referral and endorsement of the program.
- Allow time for referring counselors to discuss the program with potential families, and for families to discuss before making a commitment.

Designing a service integrated program

- It is desirable that a counsellor from the service participates consistently in the program in an assistant-therapist role.
- Determine assistant therapy staff's ability and preparedness to (a) undertake a group therapy intervention, and (b) adapt their approach to a WAT modality.
- Consider how the family WAT program can be of benefit to the current services the family receives.
- Be aware of any pending legal or administrative issues that may occur during the course of the program and how these might impact on the family. Anticipate that additional issues may be uncovered during the program.
- When selecting and sequencing activities, consider sequential steps of skill development that strengthen families' confidence to take on greater challenges.
- Anticipate the need to negotiate timetabling with all participating families once the program has begun.

- Be aware that sole-parent families are likely to be under significant strain in terms of time pressures and resources for transportation. Be prepared to be flexible and accommodate these limitations.

Documentation

- Ensure all relevant release forms have been signed to ensure an exchange of information both ways between case managers and the WAT team.
- In the first session provide a brochure of client Rights & Responsibilities for all family members.
- Use the handbook for teachers and youth workers: *Integrating Wilderness Adventure Programs in your school* (Noblet & Crisp, 2004) to help orientate any assistant-therapists.

Recruit, select and engage adolescents and families

- Select families where parents are likely to engage with each other having similar backgrounds, needs or issues.
- Carefully assess for any anxiety disorders including PTSD among all family members before, or in the early stages of the program.
- Be prepared for a high level of anxiety from social comparison and low family-esteem among families in the first session of the program.
- Before the program begins, identify what themes are likely to arise. Be mindful of details of each families experience with domestic violence or any other traumatic events.
- Establish group expectations at the outset especially in relation to creating a psychologically safe 'space' as a first step. Emphasise a solution-focused and strengths-based approach. Be clear that you will not be enquiring about traumatic events unless the families choose to volunteer this information.
- Emphasise a non-coercive approach when describing the program.

Orientate and educate support staff

- Clarify that family WAT programs are effective in bolstering foundational relationship skills such as communication, co-operation and trust-building.
- Educate service staff about how to present the program in a way that conveys a positive and non-stigmatising image and a rationale that is non-threatening to families.

Engage families

- It is important to gain background about each family in terms of presenting problems, history of involvement with the service, and in particular, their responses to the idea of the program.
- Involve families through an information session (that all family members are invited to attend) explaining the purpose and rationale of program.
- A high level of skills will be required to effectively 'join' with all family members. Be aware that a collaborative, community building style of group facilitation is likely to be most effective. Avoid being directive, or appearing autocratic or potentially deceptive.
- All participants need to have faith that the program will not overtax their capacity to manage stress. Emphasise group team-building aims rather than individual challenge aspects.

Determine evaluation protocol

- Data should be sought with regard to family functioning and systemic changes. It is likely to be inappropriate to seeking to measure individual psychopathology with such a non-clinical, family-focused program.

- Be aware of the effect of data collection on the family's readiness to acknowledge difficulties.

Other service delivery tasks

- Chose a venue that has a strong family-friendly atmosphere and ideally that is easily accessible and familiar to families, is private and feels secure.

Follow-up, program review and sustainability of outcomes

- Plan a follow-up session that gives opportunity for sharing of events that have occurred since the completion of the program.
- Ensure that case managers are given suggestions about how any changes can be supported.
- Photographs and video-taped material is an especially useful 'whole-family' reinforcement of change. Use the final session as an opportunity to celebrate success

7.2 *Wilderness Adventure Therapy clinical considerations – 'in the field' issues*

a) Therapist needs to orientate themselves to each family and hold background information for each family at all times.
b) Assess and consider parenting styles that may be over-protective. Staff must be very aware of staff-client interactions that may inadvertently repeat such patterns.
c) Male therapists need to be aware of intense transferences that may exist for clients in the initial stages of the program. Make efforts to minimize this transference by being aware of detail of the relationship each family member has/had with the perpetrator.
d) Because group size can be as large as 20 participants, therapist needs to adopt a very different style of facilitation than is required for single family or adolescent-only groups. In most instances, working with each family, or the 'group parental sub-system' as a unit will be most appropriate. It is important to view therapeutic interventions according to both group therapy principles as well as the viewpoint of 'collective family therapy'.
e) Emphasise a solution-oriented approach in framing and processing activities. Ensure success and fun early in the program to reduce performance anxiety and social comparison between families.
f) Only seek open discussion about family background issues once a level of trust has been established.
g) Keep discussion of family issues pertinent to the specifics of the activity – allow families to determine what level of analysis and depth of disclosure they are able to make.
h) Keep verbal processing to a minimum and ensure a high level of activity to keep younger children engaged. Be aware of the short attention spans of younger children.
i) Be inclusive of all family members when processing issues, regardless of developmental stage.
j) Be aware of the level of anxiety about not being in control on some activities – ensure a detailed briefing of what they can expect and what the experience may be like for them. Stressed families can easily 'de-compensate' when an activity over-taxes their ability to function effectively and this may be very distressing if it occurs over even short periods such as a day rafting expedition.

7.3 *Additional resources*

Webb, B.J. (1993). The use of a three-day therapeutic wilderness adjunct by the Colorado Outward Bound School with survivors of violence. In M.A. Gass (Ed.). (1993). *Adventure Therapy: Therapeutic Applications of Adventure Programming*, Dubuque, Iowa: Kendal Hunt Publishing.

7.4 *Program case study – The Eastern Victims Assistance Program 'Families Experiencing Adventure Together' (EVAP-FEAT) program*

Client recruitment and assessment

EVAP counsellors were asked to nominate those families who they believed would benefit from a multi-family wilderness adventure therapy intervention. After discussing the suitability of the referral, client families were then approached by the counsellor to determine their interest. After the families had considered the information passed on by their counselor, those who expressed continued interest were asked to attend an information session with their counselor and the SWATRAD team. Families who remained interested were then invited to the first session. At the first session participants were asked to complete psychometric measures of psychological social functioning with the support of the counsellor.

Program structure

Table 7.1: *EVAP 'FEAT' Program Timetable*

WEEK	DATE	ACTIVITY
-2	**Sept** Wed 23rd	Information Session
1	**Oct** Thurs 10th	**Session 1: *Introduction and Goal setting***
2	Thurs 17th	**Session 2: *Communication***
3	Thurs 23rd	**Session 3: *Co-operation Building***
W/E	Sun 27th	**Session 5: *Leadership & Team Work – Rafting***
4	Monday 28th Venue TBD	**Session 4: *Trust Building***
	Thurs 31st	**Session 6*: Keeping it going / Finishing***
	TBD ~1-2 months post-program	**Follow-up: *Ropes Course half-day***

Liaison & case-management

Written consent was gained from families for exchange of information between SWATRAD team and the client's EVAP counselor. Hand-over meetings occurred before each session where the EVAP counselor assisting the SWATRAD team handed over any relevant information about each of the families.

Therapeutic methods

The program content drew on some activities described by Gerstein (1994) and used similar solution orientated and strategic approaches. A range of brief ice-breaker, initiative and trust building activities were used in each of the evening sessions. The rafting expedition involved a day of rafting in 11ft inflatable rafts (1 per family) on grade 2 rapids. Activities were facilitated by the clinical child, adolescent and family psychologist of the SWATRAD team and processed with assistance from the EVAP counselor. Activities were framed according to family goals and issues identified in previous sessions and the common themes of the multi-family group. Each session focused on a particular theme. Each session provided a foundation for the subsequent session that required increasing levels of communication and trust. Activities were structured on the level of a whole multi-family group, separate family groups, or parent and child pair configurations. It was important to facilitate a culture of safety and acceptance of different skills and abilities. In particular, it was important that the male therapist modeled a consensual and consultative facilitation style, and was ready to overt and examine any gender-based power issues. Any positive risk-taking of any participant was strongly encouraged. At times, it was important to support parents to set limits assertively on their adolescent children, and to strengthen the parent's identity as a parent but also having personal needs that required attention. The major theme overall was the development of trust in others, safe risk-taking and mutual support.

Integration

Having the EVAP counsellor as part of the SWATRAD team who was also the case manager of all participating families allowed for an effective exchange of information during the program.

Referral and follow-up support

As the families referred were frequently engaged in other support services as part of their referral to EVAP, many significant issues were known to EVAP case managers beforehand, and were therefore being managed by them, or by another service. However, the intensive and experiential nature of the FEAT program provided valuable insights about systemic dynamics within the family and what opportunities there may be for further gains in post-program counselling.

Clinical outcomes

Families reported that they had gained much from their participation. A notable outcome for all was the opportunity to undertake family activities with other families. Parents appeared to gained confidence from mutual support through the program and appeared more optimistic and aware of their strengths as a parent and a family. The families appeared to be more positive about themselves and there appeared to be an increase in positive inter-personal interactions between family members. Both families reported increased feelings to others both within and outside of the family. They also noted that while developing trust for a male facilitator (from the SWATRAD team) was difficult, this had increased over the course of the program and was seen to be an notable achievement in itself. All participants reported being pleased they had chosen to participate in the program, despite initial reluctance.

8 Sexual Assault

Target criteria were female adolescent clients of Eastern and Northern Centres Against Sexual Assault (CASA). By the specific nature of these services, the clients presented with a sexual assault in the form of single incident rape through to long-term familial sexual and physical abuse over many years. Regardless of sexual assault history, co-morbid problems were similar among the client group, such as depression, anxiety, Post-Traumatic Stress Disorder, suicidality, self-harm and impaired peer and adult relationships. Engagement of such clients, who were typically avoidant of many new situations or people (due to PTSD and related anxiety symptoms), was difficult. Of the eight adolescents who progressed to the point of referral, only four continued through into the program.

8.1 *Issues of integrated SWAT service provision with sexual assault agencies*

Establish support from the agency

- Understand agency's organisational culture: agency's core business is 1 to 1 counselling. Consider how to introduce a group therapy framework within an individual counselling framework. For example, peer connection, self-acceptance, overcoming shame as key therapeutic needs.
- Consider how to gain credibility and confidence from agency staff toward program and WAT staff. Remember, such services work with highly vulnerable clients. Staff, quite correctly, may guard the welfare of their clients against poorly run or inappropriate program experiences.
- Be aware of client's counsellors' reluctance to hand-over their clients to unknown therapists – need to engage with, and gain the trust of agency staff who might refer.
- Consider only using only female staff if this will significantly reduce an obstacle for potentially suitable clients to follow through with referral and engage with program staff.
- Become aware of agency's relevant policies, services & procedures.
- Assess the agency's culture – consider how the "program" will be perceived and what agency staff and clients' expectations might be.
- Educate staff about the benefits of an out-sourced service with specialised expertise.
- Use case examples, and discuss WAT staff's clinical and philosophical approach with agency staff to emphasise WAT staff's expertise with similar clients (if this is so).

Designing a service integrated program

- Relationships and attachment between clients and service staff or counsellors are pivotal with this client group. Factor this into processes and planning the program structure.
- It would be highly desirable that a staff member from the service, who is known to one or more adolescents participate consistently in the program in an assistant-therapist role.
- Be aware and address any timetable clashes with school and regular counselling sessions
- Maintaining links with the agency, ensuring that agency staff are linked into aspects of program delivery, be aware that client may not be receiving regular counselling.
- Plan for a long lead-time before program commences, to allow for clients to work towards making a commitment to the program. Make suggestions for

counsellors to encourage clients to set pre-program goals to prepare themselves for (a) being in a group, (b) trusting new staff, and (c) taking on challenges.
- Consider involving clients' counsellors in early parts of the program to allow an overlapping hand-over from counsellor to WAT program staff, especially pre-program information session, and possibly group sessions or day activities.
- Assess the level and stage of the client's involvement in the agency: out-reach engagement and support, initial exploration early on, mid-process, termination stage of the counselling process. Consider how this affects opportunities for follow-up by agency staff.
- group session venue – anonymity for clients, feelings of a safe and secure environment, transport to and from venue, etc.
- Consider the effect on each client of being combined with other survivors of assault, differing stages of disclosure, modelling self-destructive behaviour, etc.
- Consider appropriateness of staffing, especially gender. Male staff may be appropriate where developing positive relationship with male is achievable and beneficial to clients.
- Consider body image issues, anxiety, avoidance behaviour, post-traumatic stress symptoms, and similarities between activities and abuse environment (e.g. dark caving) when selecting components of the program.

Documentation

- Provide an information sheet for referring counsellors on how to support clients' involvement in the program, especially in regard to social anxiety and separation anxiety. For instance, ways of engaging clients in the idea of WAT, confidentiality issues, school commitments, expected outcomes, value of program in terms of the issues that have been the focus of counselling, how the client could 'frame' their involvement to peers or others.

Recruit, select and engage adolescents

- Consider a program image, including a name, that is sympathetic to the client group, especially in relation to reducing anxious associations with outdoor adventure activities.
- Mixed gender groups are contra-indicated for survivors of sexual assault.
- Consider confidentiality issues, eg. clients who attend same school, or who are part of the same community, general feelings of the client in relation to confidentiality and what being involved in the program implies.
- In selecting a group, consider (a) composition in relation to victim-perpetrator dynamics, (b) any prior relationship histories, and (c) the impact of forming new relationships through the program with peers who may model self-destructive behaviour or attitudes.
- Be very cautious of any potential for contagion effects of suicidal symptoms.
- Psycho-sexual developmental issues are particularly important in relation to client's presentation and group behaviour. For instance, pubertal adolescents with a history of abuse or assault, will be experiencing a heightened degree of emotional turmoil. Acting-out (sexual behaviour, substance abuse, aggression) will be a common defence mechanism for this age. This age may be difficult to engage, may struggle to be contained by limit-setting, will experience high levels of anxiety, may have limited cognitive development, making impulse and self-control difficult. Including older adolescents in such a group may help to stabilise acting-out behaviour, and provide role-modelling of more effective coping strategies.
- Form the group with compatible presentations, backgrounds, and issues. Age could be varied but would depend on the particular combinations (consider family sibling relationship transferences), if in doubt keep ages similar.

- Identify what the predominant presenting issues are and what themes are likely to arise. Such themes may well become very strongly embedded in the group culture that develops, eg trust, self-determination, abandonment, self-care (lack of), neglect, etc.
- Identify at what cognitive level group members are functioning and select or modify material appropriately.
- Establish group rules at the onset especially in relation to boundaries and confidentiality, and reinforce these throughout the program.

Orientate and educate support staff

- Educate staff about areas of the program requiring additional support and information e.g. sleep, hygiene, victim/bully dynamics
- Inform staff about the indicators for suitability for referral (eg. risk factors)
- Educate service staff about how to present the program that conveys a non-stigmatising and appealing image
- Clarify boundaries of confidentiality: service/client/parents/therapists/child protection

Engage families

- Critical to consider the history of family/parent relationships in relation to assault experience(s).
- Assess for current or imminent family instability or events related to assault, such as custody hearings, protective applications, etc. and ensure pro-active case-management strategies are in place.
- It is important to ensure that families are engaged and involved in the program

Determine evaluation protocol

- Trust may take more time than with other groups to develop with program staff before valid responses to questionnaires are gained. Staff need to be especially aware of the need for reassurances of confidentiality of the information gained
- Client's may wish to have agency staff go through questionnaires with them.
- It will be important to acknowledge the detail and particular items responded to by clients so they feel heard. Suicidal ideation and plans are common among this group – be prepared to undertake suicide risk assessment immediately with clients and set aside time for this.

Other service delivery tasks

- Assess other agency involvement (eg. Dept. Human Services – Child Protection, schools) and engage them and streamline their involvement into overall case-plan, if necessary. Ensure all services are following a coordinated and consistent approach.
- Establish contacts and resources for potential follow-on services during set-up phase. Be prepared for additional issues to become known, or highlighted through the program, for instance, school refusal/engagement issues, substance abuse, homelessness, abusive intimate relationships, self-neglect, self-harm, suicidal behaviour. Consider feeding back to individual counsellor or referral-out to specialised service.

Follow-up, program review and sustainability of outcomes

- Consider involving families or parents in a reunion, but give maximum control for this to the clients.

8.2 *Wilderness Adventure Therapy clinical considerations: 'in the field' issues*

a) Establish norms of inclusion to ensure the group builds connection for all clients: be vigilant to roles that clients assume or are 'set-up' by other clients to assume. For example, perpetrator, victim, observer roles. Confront and challenge roles and interpret dynamics.
b) Be very aware of client-to-therapist transference issues – ensure detailed knowledge of family of origin history and dynamics as well as details of abuse scenarios and previous patterns of relationships.
c) Ensure that any male staff are very experienced in working therapeutically with sexually abused clients and have exceptional skills in client engagement and relationship building, and are sensitive to how they may be experienced by the client.
d) All staff must be exceptionally skilled at maintaining psychological boundaries with their clients, especially ones of the opposite sex. Such staff should be highly self-aware and self-reflective of their own needs and motivations, and able to communicate these to other staff appropriately.
e) Consider the value of having a male therapist on the team: be prepared for intense and challenging transference, especially client projections of therapist as 'victim' or 'perpetrator' – such staff need to model non-victim or non-perpetrator responses. Beware of the therapist's function within group dynamics.
f) Consider also staff relationships to clients especially in context of power-based scenarios. Plan for a high level of client input to decisions (including program elements), allow choice where possible, but be prepared to be firm on the limits of choice and areas that can not be negotiated (eg. basic safety practices such as the wearing of helmets, etc., and maintaining an atmosphere of safety in the group).
g) Plan out boundaries and staffing arrangements. For example, be aware of therapist being alone with client(s). Ensure two therapists are present at all times.
h) Think carefully about sleeping/dressing arrangements with regard to privacy, physical boundaries, lighting (ie. 'night lights' and access to torches). Open or closed spaces may be preferred. Ensure time to discuss and negotiate sleeping arrangements – be prepared to be very flexible and allow clients to exercise control within reason.
i) Be careful not to allow clients to act-out persecutory or exclusionary dynamics with other clients or staff. For instance, be prepared to roster staff to supervise throughout the night.
j) Develop strategies around getting to sleep and establish steps and procedures that assist in feeling safe (eg. relaxation tape, bed-time reading, or bringing 'transitional object' from home such as teddy bear)
k) In planning overnight expeditions and accommodation be mindful of the need for a transitional experience to more remote and tent-based sleeping. Hut-based accommodation may increase anxiety because of associations with abuse related scenarios.
l) Before expeditions, emphasise the need for changing clothes and address reluctance beforehand. Set up a routine to change, and have staff verbally modeling the changing clothes, or over concern about cleanliness and changing.
m) Hygiene: pre-emptive education, monitoring and prompting about appropriate hygiene practices.
n) Emphasis should be on clients' establishing health and wellbeing-enhancing attitudes and behaviour, physical and psychological boundaries, and self-determined standards of success.
o) Encourage and model assertiveness, participants' rights and appropriate 'refusal' of excessive demands (ie, saying 'no' to requests/demands) should be modelled by staff and encouraged in all clients, ideally becoming part of the group culture.

p) Consider clients' prior experience with similar situations, such as school camps: in regard to peer victimisation, ostracision, coercion to participate, and, or workers who may not model appropriate interpersonal relationships, boundaries, etc.
q) Be mindful of the need to prepare clients to return to home, protective care or their peer group. Clients may find it difficult making a transition of attachments from group members and WAT staff. Plan for time to terminate from group – beginning termination process days prior to the end of extended expeditions. Make time during travel home to discuss fears and feelings of loss.

8.3 *Additional resources*

Asher, S.J, Huffaker, G.Q. & McNally, M. (1995). Therapeutic considerations of wilderness experiences for incest and rape survivors, 161-174, In Cole, E., Erdman, E., and Rothblum, E., Eds (1994). *Wilderness Therapy for Women: The Power of Adventure*. New York: Haworth Press.

Estrellas, A. (1996). The Eustress Paradigm: A Strategy for Decreasing Stress in Wilderness Adventure Programming. In Warren, K, Ed. *Women's Voices in Experiential Education*. Dubuque, IA:Kendall Hunt.

Kiewa, J. (1994). Self control: The key to Adventure? Towards a model of the adventure experience, 29-42, In Cole, E., Erdman, E., and Rothblum, E., Eds (1994). *Wilderness Therapy for Women: The Power of Adventure*. New York: Haworth Press.

Levine, D. (1995). Breaking through barriers: Wilderness therapy for sexual assault survivors. 175-184, In Cole, E., Erdman, E., and Rothblum, E., (Eds.) (1994). *Wilderness Therapy for Women: The Power of Adventure*. NY: Haworth Press.

Mitten, D. (1995). Ethical considerations in adventure therapy: A feminist critique. 55-84, In Cole, E., Erdman, E., and Rothblum, E., (Eds.) (1994). *Wilderness Therapy for Women: The Power of Adventure*. New York: Haworth Press.

Mitten, D. and Dutton, R. (1993). Outdoor leadership considerations with women survivors of sexual abuse. *Journal of Experiential Education*, 16.

Rohde, R. (1996). The Value of Therapeutic Wilderness Programs for Incest Survivors: A Look at Two Dominant Program Models. In Warren, K, (Ed.) *Women's Voices in Experiential Education*. Dubuque, IA, Kendall Hunt Publishing.

Tremain, T. (1995). *Sexual Violence Survivors on Outdoor Programs: A Handbook for Leaders of Outdoor Activities*, Woodswomen, Inc., MN, USA.

Zahn, B.S. & Schug, S.E. (1993). The survivors project: A multimodal therapy program for adolescents in residential treatment who have survived child sexual abuse, 65-88, in G. Northrup, (Ed.) (1993). *The Management of Sexuality in Residential Treatment*, The Haworth Press.

8.4 *Program case study – Eastern & Northern CASA 'Wild Butterfly' program*

Client recruitment and assessment

CASA counsellors were asked to nominate those clients who they believed would likely benefit from a wilderness adventure therapy intervention. After discussing the suitability of the referral, clients were then approached by the counsellor to determine their interest. After the client had considered the information passed on by their counselor, those who expressed continued interest were asked to attend an interview with their counselor and the SWATRAD team. During this interview goals were negotiated for the participant. Following the interview, participants were asked to complete psychometric measures of psychological social functioning with the support of the counsellor. Following all interviews, a group was selected based on the principle of 'maximum benefit for most'. Clients were then notified of their place in the program.

Program structure

Table 8.1: *CASA 'Wild Butterfly' Program Timetable*

DATE	**TIMES**	**ACTIVITY**
February Tues 26th	5.30-6.30pm	Information session for clients & parents
Thurs 28th	All day	Interviews
March 1st	All day	Interviews
Tues 26th	3-5	**Introductory Group** - initiative activities
April Tues 9th		**Day Activity: Rafting**
Tues 16th		Group Session
Sat 20th		**2-Day Expedition:** Walk in to bush hut - Strathbogie Ranges
Sun 21st		On site initiative activities (accom bush hut)
Mon 22nd		**Day Activity: Caving (accom bush hut)**
Tues 16th	Afternoon	Group Session – Prep for trip
Monday 23rd to Saturday 28th		**6-Day Expedition:** Travel to Bogong High Plains
		Travel to bush hut for de-brief
		Group Session
		Celebration
		Exit interviews

Liaison and case-management

Written consent was gained from adolescents and their parents for exchange of information between SWATRAD team and the client's CASA counsellor and any external agencies such as DHS Child Protection. Hand-over meetings were scheduled during the program as clinically indicated. Crisis risk management and protective issues were responded to by the CASA counsellor and managed by them.

Therapeutic methods

The therapeutic methodology used was facilitated by the clinical child, adolescent and family psychologist of the SWATRAD team with assistance from one CASA counselor who joined the SWATRAD Team for the program. During the wilderness adventure therapy components activities were framed according to individual's goals and the themes of the group. They were then debriefed using the Wilderness Adventure Processing System (Crisp, 2001) that utilizes individual structured tick-the-box surveys. This is then used to lead the group into discussion about emerging themes. Much of the outcomes from all activities focused on group processes and inter-personal roles that emerged. These issues became the focus of the SWATRAD team's interventions. Supporting clients to relate to peers and adults assertively, relating with more appropriate boundaries, and communicating feelings more openly were the key issues worked on. The major theme overall was the development of trust and self-acceptance.

Integration

Having regular contact with CASA counsellors allowed an important flow of information to and from the SWATRAD team. CASA counsellors were then able to liaise with parents over family issues and provided both an important link but also support appropriate boundaries with clients.

Referral and follow-up support

At the conclusion of the program, handover meetings were held with the CASA counsellors and school welfare staff. A follow-up activity was undertaken that allowed staff to determine the priority of any unresolved issues, and to detect any new clinical issues that may have emerged in the interim.

Clinical outcomes

Clients reported a strong bond with other participants, frequently recounting shared experiences as being especially positive, and feeling significant pride of their achievements. They demonstrated significantly more appropriate, constructive and trusting relationships with staff. Sexualized interactions with adults and peers had substantially reduced, and all interactions appeared to be less anxiety laden. They also reported increased feelings of confidence, reduced anxiety generally and in previously feared situations, improved relationships with other peers and family members and greater trust of adults and male staff. Finally, clients reported increased motivation for school and a more positive outlook on the future.

9 Eating Disorders and Body Image

Target criteria were female adolescent clients of the Inner East Youth Social Work Service and two girls-only, and one co-ed secondary schools. Many female adolescent clients of community social work counselling services present with either a) significant body image issues, or b) the early stages of eating disorder. Co-morbid problems of this group were similar to the general population of adolescents with mental health problems. However, depression, anxiety, low self-esteem, social withdrawal, suicidality and self-harm were most common. Histories of sexual assault or abuse were also common. Engagement of such clients, with social anxiety and withdrawal was difficult. Of the eight adolescents who progressed to the point of referral, only six continued through into the program.

9.1 *Issues of integrated SWAT service provision*

Establish support from services involved

- Provide information sessions for non-WAT service staff and referring sources, and education about the limits and constraints of a WAT program – realistic and achievable objectives.
- Allow time for planning to achieve agreed upon program aims and target client group.
- Plan and find agreement about appropriate complimentary services and case-management activities: determine who will play which roles.
- Seek consent to, and then establish contact with mental health, counselling, housing and child protection services when relevant before program begins. Establish communication and liaison with outside professionals before, during and after program.
- Established eating disorders hold unique and specialised treatment and risk-management issues. Expert medical and, or, psychiatric advice should be sought in regard to these clients and the specialised risk management issues of WAT.

Designing a service integrated program

- It is desirable that a staff member from the service participate consistently in the program in an assistant-therapist role.
- Determine assistant therapy staff's ability and preparedness to (a) undertake a group therapy intervention, and (b) adapt their approach to a WAT modality.
- Consider and plan for on-going counselling within the service and how the WAT program can facilitate on-going therapeutic work. Anticipate that clinical issues may be uncovered during the program. Establish referral pathways to specialised services (eg. mental health, sexual assault).
- Consider the potential group culture that can develop around issues of body aesthetics and attitudes to food and eating behaviour.
- Consider the importance of staff modeling certain concepts and values, discuss these well ahead - anticipate problematic scenarios.
- Where possible, designate a female wilderness adventure leader to take on primary leadership with regard to activities to model female physical competence and 'functional' body image values, and non-stereotypic gender roles.
- When selecting and sequencing activities, consider how to address high levels of anxiety about body image, and the avoidance that may result. Anticipate resistance to clothing and equipment requirements for certain activities, for instance using wet-suits/bathers, harnesses, and sizing of gear such as buoyancy vests.

Documentation

- See the handbook for teachers and youth workers: *Integrating Wilderness Adventure Programs in your school* (Noblet & Crisp, 2004).

Recruit, select and engage adolescents

- Mixed gender groups are contra-indicated with body image issues because of normal adolescent developmental gender specific social comparison that frequently occurs in mixed sex groups.
- Attempting to run a WAT program for a majority of clients with severe eating disorders is unlikely to be successful, and runs a high risk of being detrimental due to the powerful and unconscious dynamics such groups can exert on individual members. There are added medical and health risks associated with such groups ranging from impaired cognitive functioning, lowered electrolyte levels (risk of heart failure), and increased risk of hypothermia.
- Aim to recruit a majority of clients with body image issues only, or those in the early stage of an eating disorder. Be aware of the contagion effects of more serious eating disorders on less severe adolescents, and remember eating disorders do kill people. In selecting a group, consider the composition as it relates to the development of a supportive rather than competitive culture.
- Carefully assess for underlying psychopathology such as emerging personality disorder, history of emotional/physical/sexual abuse, severe family dysfunction, depression/suicidality, substance abuse. Put supports in place before program begins and be ready to make referrals out to other services if necessary.
- Be prepared for a high level of anxiety among group members in the initial stages of the program around fears of social comparison. Consider one-to-one sessions over a group-based format for information sessions, or even some individual counselling to prepare individuals for beginning a group. Select highly directive strategies and structured activities to manage this. Supportive adults, such as teachers may be very valuable to encourage attendance, even driving them to sessions initially.
- Assess and consider parents styles of relating to the adolescent that may be dysfunctional, be very aware of staff-client interactions that may inadvertently repeat such patterns. This especially applies at meal times. The staff team need to discuss a consistent approach that takes account of the risk management needs for sufficient food intake.
- Identify what the predominant presenting issues are for the group, and what themes are likely to arise. Such themes may appear to have only distant relevance to body image or eating disorders. For instance trust, social isolation, peer connection and social anxiety may be issues in common. This likely reflects problems that underlie, or contribute to their body image or eating disorder presentation.
- Establish group rules at the onset especially in relation to acceptance and tolerance of difference, and reinforce these throughout the program.

Orientate and educate support staff

- Informing staff about indicators for suitability for referral (eg. risk factors).
- Clarify that WAT programs are most effective in intervening with risk and protective factors (eg. depression and peer acceptance respectively). In other words, community-based uni-modal WAT interventions are unlikely to be appropriate to target eating disorder behaviour directly. Body image issues may be most effectively addressed by intervening with precipitating and maintaining factors such as social isolation, social and communication skills (eg. assertiveness), depressive symptoms, etc.

- Stress the importance of staff modelling to challenge attitudes and beliefs that underlie poor body image and eating behaviour, rather than challenging poor body image and eating behaviour directly.
- Educate service staff about how to present the program in a way that conveys a positive and non-stigmatising image and rationale that is attractive to the target group.
- Educate agency staff about the risks of contagion with regard to eating beliefs and attitudes.
- Clarify roles and boundaries: discuss how to guard against staff becoming 'split' by clients. Ensure that staff are consistent in their approach to issues with clients especially in relation to staff responses to eating behaviour and staff attitudes to the client's physical and medical status.

Engage families

- It is critical to consider the history of the family and/or parental relationships in relation to body image and eating behaviour.
- Involve families through a parent information session, explaining the purpose and rationale of program. Establish family support for the client's involvement and commitment to the program, especially in the early stages where social anxiety, ambivalence and avoidance may be very high.

Determine evaluation protocol

- Be prepared to use responses to evaluation measures as a conduit to discussion about important issues, such as social relationships, depression, anxiety.
- Be aware of the client's inclination towards self-criticism. Stress the purpose of the measures is not about comparisons to the norm or an ideal, and is not a 'test'.
- Make time to feedback results to clients who may be anxious about social comparison and self-evaluation.

Other service delivery tasks

- Choose a non-stigmatising venue that also allows for privacy and boundaries and 'sets the tone' appropriately.

Follow-up, program review and sustainability of outcomes

- Plan a follow-up session that maximises opportunity for 'normal' social interaction to help generalise program outcomes, eg. meeting over a meal, rather than an adventure activity.
- It may be appropriate for more than one follow-up session to be planned, depending on the degree of cohesion in the group, as attachments formed may be significant and strongly felt.

9.2 *Wilderness Adventure Therapy clinical considerations – 'in the field' issues*

a) Therapist needs to be very active and directive to facilitate social interaction and appropriate disclosure to ensure group members engage with each other (and the program).
b) Establish the expectation of inclusion, fun and peer attachment to ensure the group builds connection for all clients. There is likely to be a depressive mood and withdrawal within the group that will preclude social interaction and any form of risk-taking.
c) Be very aware of client-to-therapist transference issues – ensure a detailed knowledge of family culture around food or body image. Be aware of these family dynamics as well as details of mealtime scenarios.
d) Encourage discussion about social expectations and norms about body image and provide empathic listening to clients. Resist conveying a certain perspective or

fixed view point, and encourage the group to explore such issues. Be aware that clients are likely to present with very entrenched belief systems about body image and that group discussion of such may be limited, or may strengthen dysfunctional perspectives and beliefs.

e) Such clients may be highly compliant, and motivated to please others. Encourage divergent points of view, and frame 'conflict' as a positive contribution to the group understanding itself better.
f) Consider the value of having male therapist on team to model non-stereotype beliefs and inter-personal interactions and roles.
g) Be careful not to allow clients to be ostracised if they don't conform to the dominant views of the group. Such exclusionary dynamics may be subtle with other clients or staff.
h) Emphasis throughout the program should be on clients' establishing a clear and valued identity within the group, and especially self-determined standards of success.
i) Assertiveness, ie, saying 'no' to requests/demands, should be modeled by staff and encouraged in all clients, ideally becoming part of the group culture.
j) Need to prepare clients to return to home to their usual peer group, allow time for planning approaches and strategies for managing peer pressures and being more assertive. Establish a group culture of support for others to take risks and challenge other's views of them.
k) Clients may find it difficult terminating from the group. Plan for time to terminate from group – beginning termination process days prior to the end of extended expeditions.

9.3 *Additional resources*

Arnold, S.C. (1995). Transforming body image through women's wilderness Experiences, 43-54. In E. Cole, E. Erdman, & E. Rothblum (Eds.). (1994). *Wilderness Therapy for Women: The Power of Adventure*. New York: Haworth Press.

Mitten, D. (1995). Ethical considerations in adventure therapy: A feminist critique. 55-84. In E. Cole, E. Erdman, & E. Rothblum (Eds.). (1994). *Wilderness Therapy for Women: The Power of Adventure*. New York: Haworth Press.

Paxton, S.J. (2002). *Evidence-Based Health Promotion: Resources for Planning. No 6 Body Image. Research Overview*. Department of Human Services, Victoria, webpage. www.dhs.vic.gov.au/phd/ebhp

Paxton, S.J. (2000). Sociocultural contexts of body image dissatisfaction and disordered eating in women. Health *Sharing Women, 10*, 13-17.

Paxton, S. J. (1999). Peer relations, body image and disordered eating in adolescent girls: Implications for prevention. In N. Piran, M. P. Levine & C. Steiner-Adair, (Eds.), *Preventing eating disorders: A handbook of interventions and special challenges*. NY: Brunner/Mazel, Chapter 8, pp. 134-147.

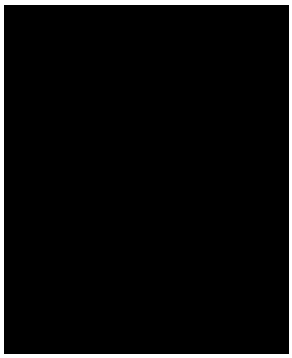
Paxton, S. J., Schutz, H.K., Wertheim, E.H. & Muir, S.L. (1999). Friendship clique and peer influences on body image attitudes, dietary restraint, extreme weight loss behaviours and binge eating in adolescent girls. *Journal of Abnormal Psychology. 108*, 255-266.

Richards, K., Peel, J.C.F., Smith B. & Owen, V. (2001). *Adventure Therapy & Eating Disorders: A Feminist Approach to Research & Practice*. Ambleside: Brathay Hall Trust

Wertheim, E.H., Paxton, S.J., & Blaney, S. (in press). Risk factors for body image dissatisfaction. In J.K. Thompson (Ed.) *Handbook of Eating Disorders and Obesity*, New Jersey: John Wiley.

9.4 *Program case study - Boroondara Community Health Youth Social Work Service 'Girls Go Wild' program*

Client recruitment and assessment



The Boroondara Youth Social Worker was asked to select clients from her existing case load who would likely benefit from a wilderness adventure therapy intervention. In addition, the welfare staff from three local schools (2 single sex, one co-ed) were approached for referrals. After discussing the suitability of each referral, clients were then approached by the Youth Social Worker, or school welfare staff to determine their interest. After prospective clients had considered introductory information, those who expressed continued interest were asked to attend an interview with the Social Worker (or school welfare staff) and the SWATRAD team. During this interview goals were negotiated for the participant. Following the interview, participants were asked to complete psychometric measures of psychological social functioning. Following all interviews, a group was selected based on the principle of 'maximum benefit for most'. Clients were then notified of their place in the program.

Program Structure

Table 9.1: *The 'Girls Go Wild' program timetable*

WEEK	DATE	TIMES	ACTIVITY
1			Individual interviews – by appointment
2	Thursday 25th	3.30-5.30	Group session: introductions fun, & games
3	Tuesday 30th	9.30-4.00	Adventure Activity – Horse riding: Upper Plenty
4	**August** Monday 5th	3.30-5.30	Group session: review and preview
	Tuesday 6th	8.00-5.00	Adventure Activity – Cross country skiing: Lake Mountain
5	Monday 12th	3.30-5.30	Group session: more activities
	Tuesday 13th	9.00-4.00	Adventure Activity – Peak Ascent: Cathedral Range
6	Monday 19th	3.30-5.30	Group session: yes, more activities
	Tuesday 20th	9.00-4.00	Adventure Activity – Caving: Yarra Junction
	Saturday 24th to ……	**9.00am -**	**Overnight Expedition: Strathbogie Ranges** (included trust building initiatives and
7	***Monday 26th***	**-> 3.30pm**	facilitated group work)
	Thursday 29th	3.30-5.30	Group Session: some final activities & fun
8	**Sept.** Thursday 5th	3.30-5.30	Group Session: final review
9	Thursday 12th	TBD	***Ceremony***
-	**Oct.** Thursday 24th	1.00-4.00	Reunion / Follow-up – Ropes Course

Liaison and case-management

Written consent was gained from adolescents and their parents for exchange of information between SWATRAD team and the client's Social Worker or school staff, or any external agencies such as CAMHS who were already involved. Hand-over meetings were scheduled during the program as clinically indicated. Case planning began by the SWATRAD team and Social Worker before the program to plan referral-on post program to services such as DHS Child Protection.

Therapeutic methods

The therapeutic methodology used was facilitated by the clinical child, adolescent and family psychologist of the SWATRAD team with assistance from the Youth Social Worker who joined the SWATRAD Team for the program. During the wilderness adventure therapy components, activities were framed according to individual's goals and the themes of the group. They were then debriefed using the Wilderness Adventure Processing System (Crisp, 2001) that utilizes individual structured tick-the-box surveys. This is then used to lead the group into discussion about emerging themes. The after school group sessions were valued opportunities to discuss routine issues about home or school, and the clients appeared to find it useful to gain support and guidance from the SWATRAD team about these issues. This was also an effective way of monitoring home and school issues during the program. The expedition focused more on creating a 'safe space' for reflection and discussion about home and school issues. It was critical to promote an accepting group culture that allowed opportunities for mutual affirmation of personal strengths and altruistic behaviour. All of these issues became the focus of the SWATRAD team's interventions. Supporting clients to relate to peers and adults assertively, relating with more appropriate boundaries, and communicating feelings more openly were the key issues worked on. The major theme overall was the development of trust and self-acceptance.

Integration

Having the Youth Social Worker as part of the SWATRAD team allowed for an important flow of information during the program. Having regular contact with parents was difficult with the program timetable developed. In fact, a number of parents commented on this at the conclusion of the program. This would have been a significant improvement to the program.

Referral and follow-up support

During the program, a number of issues were identified from some clients such as protective issues and mental health problems. The SWATRAD team needed to instigate referral-out and liaison for these clients early in the program, which appeared to lead to appropriate supports being put in place.

Clinical outcomes

Clients showed reduced social anxiety and withdrawal and greater self-acceptance. Concerns about appearance and meeting aesthetic social standards were markedly reduced. Several clients reported being less self-critical and being more assertive in relationships with peers and adults. Levels of depression were reported to be less. Group discussions at termination and follow-up focused on the value of peer acceptance - being part of a group that supported individual differences and saw strengths and abilities in others, and how this contrasted with usual peer experiences. Teachers reported important positive changes in peer relationships (breaking ties with negative influences and forming more positive and supportive friendships) among two socially isolated clients. Parents of most clients reported improved self-esteem and more open and emotionally expressive relationships with family members.

10 Substance Abuse

Target clients were adolescents who were in the early stages of known or suspected substance abuse. Participants were recruited from 3 government high schools and were referred by welfare staff, who considered they may be at risk of, or were known to be abusing substances. Typically, these adolescents often had significant family stress or a substantial level of parental conflict. The rationale for targeting these clients with this form of intervention was that those adolescents who were at risk of serious substance abuse or dependence would possibly as a result, have high levels of parental conflict, which could lead to rejection from the family, or at least lead to the adolescent withdrawing from the family, and thereby increasing their risk of substance abuse. The aim of the intervention was to strengthen relationships between adolescent children and their parents using a multi-family group format. Students from the 3 schools were referred with the support of school welfare staff. Two programs were run - each with 3 families referred. At the beginning of the first session, one family in each program had withdrawn. Reasons given were a) because of the reluctance of the adolescent to attend, or b) difficulty meeting time commitments. In the end, four families completed the two programs. A psychologist from the EDAS acted as assistant therapist for the second program.

10.1 *Issues of integrated SWAT service provision*

Establish support from services involved

- Provide information sessions for referring professionals (school welfare staff) and educate about the value, limits and aims of a multi-family group based WAT program. Be ready to discuss in detail the rationale for the target group and who may be appropriate to refer. Discuss any potential referrals with referring staff.
- Be clear about the type of support families and students would require, and the importance of support from the school for the adolescent and family.
- Allow time for referring teachers to discuss the program with potential families.
- Determine any other agency involvement and liaise and educate other professionals prior to the program.
- Determine, where possible, the extend of substance abuse and mental health problems prior to the program beginning.

Designing a service integrated program

- Consider how the family WAT program can be of benefit to other concurrent therapy or case management that is being provided by any other agencies. Anticipate that additional issues may be uncovered during the program.
- Ensure a routine to hand-over information to case-managers or other therapists, and a general progress update to referring school welfare staff.
- When selecting and sequencing activities, consider sequential steps of skill development that strengthen families' ability to take on greater challenges, be prepared to be flexible if family's level of trust is insufficient or conflict could become detrimental.
- Anticipate the need to negotiate timetabling with all participating families once the program has begun.

Documentation

- Ensure all relevant release forms have been signed to ensure an exchange of information both ways between other agencies involved, referring schools and the SWATRAD team.
- In the first session provide a brochure of client Rights & Responsibilities for all family members. Be prepared to establish clear expectations about emotional safety.
- Use the handbook for teachers and youth workers: *Integrating Wilderness Adventure Programs in your school* (Noblet & Crisp, 2004) to help orientate any assistant-therapists.

Recruit, select and engage adolescents and families

- Try to ensure any reluctant adolescents will have a similar aged adolescent from other families to make the program more appealing.
- It may be useful to mix students from different schools to increase anonymity.
- Select families where parents are likely to engage with each other having similar backgrounds, needs or issues.
- Consider single family sessions in preference to multi-family format for information sessions to ensure anonymity.
- Ensure that the quality of parent-adolescent relationships has a sufficient level of trust and communication so that exposure to stressful challenges is unlikely to lead to destructive interactions. Aim to ensure that the multi-family group will have at least one good role-model of positive and committed parent-adolescent relationships.
- Carefully assess for the potential for destructive or abusive parent-child interactions.
- Be prepared for a high level of anxiety among families in the first session of the program stemming from fears of social comparison and stigma about being referred.
- Establish group expectations at the outset especially in relation to a solution-focused approach and giving positive and constructive feedback, and reinforce these throughout the program.

Orientate and educate support staff

- Inform referring staff about indicators for suitability for referral and the aims of the program.
- Clarify that family WAT programs are effective in bolstering foundational relationship skills such as communication, co-operation and trust-building.
- Coach referring staff about how to present the program in a way that conveys a positive and non-stigmatising image and a rationale that is non-threatening to families.

Engage families

- It is important to gain background about each family in terms of prevailing issues, history of involvement with the school, and in particular, their responses to the idea of the program.
- Involve families through an information session (that all family members are invited to attend) explaining the purpose and rationale of program. Establish the identified client's view about the referral and their expectations.
- It is essential to engage the identified client effectively as they may refuse to participate if they feel they will be adversely effected in any way by being involved. A high level of skills will be required to effectively 'join' with all family members.

- Both parents, adolescents and other siblings need to have faith that the 'pace' of the program will be set by them and will not increase conflict or scapegoat the adolescent in the process.

Determine evaluation protocol

- Any discussion about responses to evaluation measures should be done on an individual basis and not with the family unless previously agreed.
- Be aware of the effect of data collection on the identified client. Be very careful not to 'single out' the identified client by only collecting data from them. Data about the family functioning should be collected from all members of the family who are at least latency age (~10) or greater.

Other service delivery tasks

- Choose a venue that families are familiar with if possible that allows for privacy.

Follow-up, program review and sustainability of outcomes

- Plan a follow-up session that gives opportunity for sharing of events that have occurred since the completion of the program.
- Ensure that referring staff are briefed on general outcomes from the program, and are given suggestions about how any changes could be supported.
- Photographs and video-taped material is an especially useful 'whole-family' reinforcement of change.

10.2 *Wilderness Adventure Therapy clinical considerations – 'in the field' issues*

a) Because group size can be as large as 20 or more participants, therapist needs to adopt a very different style of facilitation than is required for single family or adolescent-only groups. For instance, directing interventions toward the group parental sub-system or group child-subsystem to address issues of their children or parenting issues respectively.
b) Where there may be little background information available from the referring professional, it will be important to use the early stages of the program to gather as much assessment information about the family, and parent-child relationship history as possible. Be tentative about assumptions of what these patterns of interaction are.
c) It is important to view therapeutic interventions according to group therapy principles rather than from the viewpoint of 'collective family therapy'.
d) Emphasise a solution-oriented approach in framing and processing activities. Ensure success and fun early in the program to reduce performance anxiety and social comparison between families.
e) Only seek open discussion about family background issues once a level of trust has been established.
f) Keep discussion of family issues pertinent to the specifics of the activity – allow families to determine what level of analysis and depth of disclosure they are able to make.
g) Keep verbal processing to a minimum and ensure a high level of activity to keep younger children engaged. Be aware of the short attention spans of younger children.
h) Arrange for on-site childcare for children under approximately 10 years old if needed.
i) Be inclusive of all family members when processing issues, and be careful not to focus attention on the identified client in such a way that may create or perpetuate them as the locus of the problem in the family. It may simply be a goal of therapy to 'de-center' the problem for the family and to fully understand the systemic influences and patterns.

j) Be very aware of client-to-therapist transference issues – be careful of potentially colluding with parents, or supporting their agenda. Maintain neutrality with all clients, parents and children.
k) The therapist or assistants may provide very powerful role-modelling of parent-child behaviour during activities – anticipate, and plan for this.
l) Consider ways to facilitate inter-family interactions: parent to child, parent to parent, child to child. Encourage exploration of each other's family culture and parenting practices.
m) Be ready to set limits on potentially damaging conflict that can arise between parents and children.
n) Be aware of the limits of trust and support within each family – assess carefully the potential outcome for each client from any co-operative or trust based activity. Encourage client's to 'sit-out' of activities and observe rather than encouraging them to participate in an activity that may result in decreased trust or feeling unsupported. Discuss the issue before the activity if necessary.
o) Be aware of the level of anxiety about not being in control on some activities – ensure a detailed briefing of what they can expect and what the experience may be like for them. Stressed families can easily 'de-compensate' when an activity over-taxes their ability to function effectively and this may be very distressing if it occurs over even short periods such as a day rafting expedition.

10.3 *Additional resources*

Australian Drug Foundation: http://www.adf.org.au/

Bandoroff, S. (2003). Family therapy with a twist and a shake and a shout. 424-252. In K. Richards & B. Smith (Eds.), *Therapy Within Adventure: Proceedings of the Second Iunternational Adventure Therapy Conference*, Augsburg: Ziel.

Furgusson, D.M. & Horwood, L.J. (2000). Does cannabis use encourage other forms of illicit drugs use?, *Addiction, 95*(4), 505-520.

Gabel, S., Stallings, M.C., Young, S.E., Schmitz, S., Crowley, T.J. & Fulker, D.W. (1998). Family variables in substance-misusing male adolescents: The importance of maternal disorder. *American Journal of Drug and Alcohol Abuse, 24*(1), 61-84).

Gerstein, J.S. (1994). *Experiential Family Counselling: A Practitioner's Guide.* Iowa: Kendall/Hunt.

Gillis, H.L. & Simpson, C. (1991). Project Choices: Adventure-based residential drug treatment for court-referred youth. 331-346. In Gass, M.(Ed). *Adventure Therapy: Therapeutic Applications of Adventure Programming*. Iowa: Kendal Hunt Publications.

Jenkins, J.E. & Zunguze, S.T. (1998). The relationship of family structure to adolescent drug use, peer affiliation and perception of peer acceptance of drug use. *Adolescence, 33*(133), 811-824.

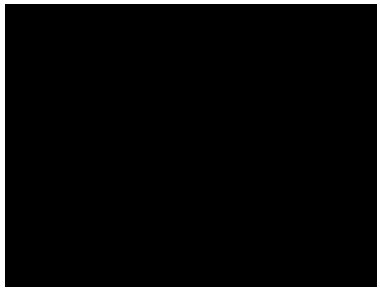
National Drug Research Institute: http://www.curtin.edu.au/curtin/centre/ndri/

Pryor, A. (2003). The Outdoor Experience Program: Wilderness journeys for improved relationships with self, others and healthy adventure. 221-242. In K. Richards & B. Smith (Eds.), *Therapy Within Adventure: Proceedings of the Second International Adventure Therapy Conference*, Augsburg: Ziel.

Turning Point Drug & Alcohol Services: http://www.turningpoint.org.au

10.4 *Program case study – Eastern Drug & Alcohol Service 'Families Experiencing Adventure Together' (EDAS-FEAT) program*

Client recruitment and assessment



Staff of the Eastern Drug & Alcohol Service were consulted extensively about the ideal target group and program format for intervening in adolescent substance abuse. A systemic approach with an early intervention focus was considered to be the most appropriate use of a community-based wilderness adventure therapy program. Family issues, and in particular the relationship between parents and their adolescent children, was seen as an especially effective use of such a modality. As an early (or 'indicated') intervention approach was used, schools were thought to be the most appropriate source of referral. This would enable adolescents who exhibited early signs of substance use or risk factors for substance abuse to be recruited without increasing the risk of stigmatizing the adolescent or the family. School welfare staff in three local high schools were educated about the program, target groups and aims and suitability for referral. They were then asked to discuss the program with families who met key selection criteria: known or suspected substance abuse (such as excessive alcohol or frequent cannabis use), where the parent-child relationship appeared to be at risk of imminent breakdown and these factors appeared to be affecting the adolescent's everyday functioning. Those families that expressed an interest were invited to attend individual information sessions to meet SWATRAD staff and learn about the programs aims and methods. If families continued to be interested, they were asked to complete a brief 'application form' that sought basic facts about the family and what goals every family committed to for the program. In total, 3 families were referred, with two beginning each of the two programs. At the beginning of the first session, each family's goals for the program were discussed in the multi-family group. Participants were asked to complete psychometric measures of psychological and family functioning. Four families in total completed the program.

Program Structure

Unlike other FEAT style programs, the *EDAS-FEAT* program structure was both an adolescent peer group model combined with a multi-family group model – see Table 10.1.

Table 10.1: *The 'EDAS-FEAT' program timetable*

WEEK	DATE	TIMES	ACTIVITY
1	Friday 16th	8.40-4pm	**Day Activity: Peak Ascent** (adol.s)
2	Monday 19th	6.30-8.30	Family session #1
	Thursday 22rd	8.40-4pm	**Day Activity: Caving** (adol.s)
3	Monday 26th	6.30-8.30	Family session #2
	Friday 30th	8.40- 4pm	**Day Activity: Skiing** (adol.s)
4	**Thursday** 5th September	6.30-8.30	Family session #3
	Friday 6th	8.40- 4pm	**Day Activity: Climbing / Abseiling** (adol.s)
5	Monday 9th	6.30-8.30	Family session #4
	Sunday (15th) Sept	11.00-6.00	**Family Rafting Expedition**
6	Wednesday 18th	8.40- 3pm	**Day Activity: Ropes Course** (adol.s)
		5.00-7.00	***Family Celebration***
	Late October	TBD	Reunion / Follow-up

Liaison and case-management

Written consent was gained from parents for the exchange of information between SWATRAD team and the school. Progress review meetings occurred mid-program and at the end to update the school about general progress of the program.

Therapeutic methods

The program content drew on some activities described by Gerstein (1994) and used similar solution orientated and strategic approaches. A range of brief ice-braker, initiative and trust building activities used were used in the evening sessions. The rafting expedition involved a day of rafting in 11ft inflatable rafts (1 raft per family) on Grade 2 rapids. Activities were facilitated by the clinical child, adolescent and family psychologist of the SWATRAD team. Activities were framed according to family goals and issues identified in previous sessions and the common themes of the multi-family group. Families appeared to find it useful to gain support and feedback from other families, especially across family sub-systems: parent to parent, child to child. Each session focused on a particular theme. Each session provided a foundation for the subsequent session that became increasingly confrontational because increasing co-operation between adolescents and parents was required. It was critical to empower parents to actively maintain the role of parent and not deputise the therapist to adopt this role. It was important to facilitate a culture of acceptance of different skills and abilities of any group member, and to adjust activities to allow young children to participate. In particular, it was important to encourage parents to provide support for their children and praise for achievement. Any positive feedback between parents and children was strongly reinforced. At times, it was important to support adolescents to relate to their parents assertively, and parents to relate to their children with more appropriate boundaries, and communicating feelings more openly.

Integration

Having the EDAS psychologist as part of the SWATRAD team allowed for easy referral-on for counselling on substance use issues if required. While this option was offered, no adolescents or families sought this immediately following the program.

Referral and follow-up support

The intensive and experiential nature of the FEAT program provided valuable insights about systemic dynamics within the family and what opportunities there may be for further gains in other therapeutic interventions such as individual therapy or conventional family therapy. For this reason, the SWATRAD team provided detailed hand-over information about the family to other agencies if they were involved to utilize in on-going work. Any issues that warranted further follow-up were raised with the families as needed or communicated to the school to monitor where indicated.

Clinical outcomes

The major themes overall for both programs were a) the development of more effective communication of personal needs of the adolescent, and b) establishment and maintenance of boundaries by the parent. In particular, these issues had underpinned considerable conflict between adolescents and parents over long periods of time. Most participants reported improvements in the area of overall family communication and increased understanding of how problems had evolved. All families reported more satisfactory interactions with all family members (parents in particular), and reduced levels of stress within the family. Adolescents reported feeling better understood by their parents and more inclined to be more frequently involved with other family members in activities. All adolescents appeared to have improved confidence, higher self-esteem and less depressive symptoms. Reports from school suggested improved functioning and psychological well-being while at school.

Section D Clinical Treatment

11 Mental Health Disorders

Target clients were a broad range of adolescent out-patients and their parents of the Barwon Health Adolescent Mental Health Service (AMHS), who required more intensive out-patient treatment than traditional approaches. The target group presented with a range of mental health disorders including mood and anxiety disorders, disruptive behaviour disorders, relationship problems, adolescents with emerging personality disorder, victims of abuse and trauma, and recent on-set psychosis. Suicide, self-harm, substance abuse, high-risk behaviour and school disengagement and truancy occurred regularly among this client group. Outpatient case-managers from the service referred adolescent clients for wilderness adventure therapy following a comprehensive clinical bio-psycho-social developmental assessment. At referral, case managers were asked to nominate the primary presenting problem. The majority of adolescents presented with behavioural problems as a primary issue. Typically, the severity and longstanding nature of these behaviours qualified these adolescents for diagnoses of Conduct Disorder or Oppositional Defiant Disorder.

Table 11.1: *Primary problem of clients referred to GO WEST according to referees.*

Primary reason for referral	**% of sample**
Disruptive Behaviour / Conduct Disorder	29
Depression	21
Anxiety	14
Identity/Self esteem	14
Relationship Problems	14
Psychosis	8

The percentage of the group with one or more of the listed presenting problems is shown in the table below. Typically, adolescents presented with a wide range of concomitant difficulties. The broad range and number of presenting problems identified at the time of referral reflects the severity of client needs. When the percentages are summed (626%) this suggests that the average client has more than 6 of these problems additional to the primary reason for referral. Over one-third of the clients have school behavioural problems (41%) including adult (65%) and peer (47%) relationship problems. One-third suffer depression and/or have problems with aggressive behaviour. One in four clients suffer from bullying, are suicidal, self-harming and are reluctant to attend school.

Table 11.2: *Frequency of additional presenting problems amongst GO WEST clients.*

Presenting Problem	**%**	**Presenting Problem**	**%**
Low Self Esteem	71	Bully Victim	24
Poor Adult Relationships	65	Suicidal Ideation &/or Acts	24
Poor Family Relationships	65	Sexual Abuse	12
Poor Peer Relationships	47	Physical Abuse	12
School Behavioural Problems	41	Emotional Abuse	12
Anxiety	41	Eating Disorder	12
Family Mental Illness	41	Chronic Instability	12
Depression	35	Housing Difficulties	12
Aggressive Behaviour	35	Sexuality Problems	6
Self-harming	29	Learning Difficulties	6
School reluctance	24	Other	0

Almost without exception, due to such problems, the parents of these clients had experienced substantial stress on their family relationships generally, and their adolescent child in particular, and were often not coping. It was the aim of this form of intervention to primarily provide an intensive treatment for the main mental health disorder of the adolescent clients, in addition to promoting protective factors such as improved family relationships as a second priority. Engagement of clients to the program was made easier by support from Barwon Health AMHS case-managers. A total of 6 programs during 2000 and 2001 were conducted, with a total of 39 adolescents completing the *GO WEST* wilderness adventure therapy treatment. All participants were followed up at 3 months post-program and at the time of writing, 2-3 year follow-up data collection was nearing completion.

11.1 *Issues of integrated SWAT service provision*

Establish support from within mental health service

- Provide information sessions for AMHS clinical manager and clinicians and educate about the value, limits and constraints of a WAT programs as a primary treatment for major mental health disorders.
- Be clear about the types of adolescents who would and would not be suitable, and the importance of active and responsive case-management support.
- Allow time for clinicians to discuss the program with potential adolescents and parents.
- Plan and find agreement about appropriate complimentary case-management activities and concurrent therapy: determine who will play what roles.
- Discuss potential risks currently as they exist for the adolescent, and how their involvement in the program may impact on that risk, ie. any suicide risk, alcohol abuse or self-harming or high-risk behaviour.

Designing a service integrated program

- It is desirable that a clinician from the service participates consistently in the program as a 'wilderness adventure therapy *assistant'*.
- Determine assistant therapy staff's ability and preparedness to (a) undertake a group therapy intervention, and (b) adapt their approach to a WAT modality.
- Consider how the parent/family WAT component can be of benefit to concurrent therapeutic work. Anticipate that additional issues may be uncovered during the program.
- Ensure routine to hand-over information and documentation to case-managers or other therapists involved, using standard proformas that can be included into case files.
- When selecting and sequencing activities, consider sequential steps of skill development that strengthen adolescent's ability to take on greater challenges.
- Anticipate any competing timetabling issues such as school commitments.

Documentation

- Ensure all relevant consent forms have been signed, including release of information from any external services provider or school to ensure an exchange of information both ways between the AMHS WAT team and external professionals.
- In the first session provide a brochure of client Rights & Responsibilities for adolescents and parents.
- Use the handbook for teachers and youth workers: *Integrating Wilderness Adventure Programs in your school* (Noblet & Crisp, 2004) to help orientate any AMHS assistant-therapists.
- Prepare detailed information about clothing requirements and information about any outdoor activities, especially for the parent/family components such as rafting or ropes courses to help reduce uncertainty and anxiety, and increase attendance.

Recruit, select and engage adolescents and families

- A mixture of mental health disorders within any group would be desirable to ensure constructive role modeling of different coping styles.
- Select adolescents who are likely to engage with each other having similar backgrounds, needs or issues.
- Consider single sessions over a group format for information sessions if the adolescent is especially anxious or reluctant.
- Ensure that the group can develop a sufficient level of trust and communication so that exposure to stressful challenges is unlikely to lead to destructive interactions. Ideally, the group will have at least one good role-model of positive and committed adolescent-staff relationships.
- Carefully assess the potential for destructive or abusive client combinations.
- Assess and consider parents styles of relating to the adolescent that may be dysfunctional, be very aware of staff-client interactions that may inadvertently repeat such patterns.
- Before the program begins, identify what the predominant presenting issues are for the group, and what themes are likely to arise.
- Establish group expectations at the outset especially in relation to a solution-focused approach and giving feedback, and reinforce these throughout the program.

Orientate and educate support staff

- Inform staff about indicators for suitability for referral and the aims of the program – outline these on Referral Form.
- Clarify that WAT programs can be effective to mobilise more effective coping and stimulating change not just in the adolescent but their family system.
- Educate service staff about how to present the program in a way that conveys a positive and non-stigmatising image and a rationale that is non-threatening.

Engage adolescents

- It is important to gain background about each adolescent in terms of presenting problems, history of involvement with the service, and in particular, their responses to the idea of the program.
- Involve parents through the information session explaining the purpose and rationale of program, and the role expected of parents to support their children in the program.
- Establish the identified client's view about the referral and their expectations.
- It is essential to engage the identified client effectively as they may refuse to participate if they feel they will be adversely effected in any way by being involved. A high level of skills will be required to effectively engage adolescents.
- Both parents and adolescents need to have faith that the program will not overtax their resources to cope and therefore be a destructive experience.

Determine evaluation protocol

- Collect data once adolescents have been engaged, beginning of the first group session is ideal.
- Any discussion about responses to evaluation measures should be done on an individual basis and not with the whole group.

Other service delivery tasks

- Chose a venue that adolescents are familiar with if possible that also allows for privacy.

Follow-up, program review and sustainability of outcomes

- Plan a follow-up session that gives the opportunity for sharing of events that have occurred since the completion of the program.
- Ensure that case managers are briefed on immediate and longer-term outcomes from the program, and are given suggestions about how any changes can be supported.
- Photographs and video-taped material is an especially useful reinforcement of change, and can be a valuable aid for reflection.

11.2 *Wilderness Adventure Therapy clinical considerations – 'in the field' issues*

a) Therapist needs to orientate themselves to each adolescent and family and hold background information as well as formulations for each at all times. In particular, be aware of client's past history of traumatic events (such as abuse), any anxiety disorders and attachment histories.
b) When facilitating the parent and family sessions, group size can be as large as 20 or more participants, and therapists needs to adopt a very different style of facilitation than is required for adolescent-only groups. For instance, it may be more useful to direct interventions toward the group 'parental sub-system' or group 'child-subsystem' to address issues of their children or parenting issues respectively.

c) Be aware of the impact of client's mental health disorders on enhancing or retarding normal group development. For instance, bizarre, aggressive or withdrawn behaviour may raise group anxiety and inhibit social interactions and self-disclosure early in a group. Be ready to be very active and directive with groups that struggle to form constructively.
d) Emphasize a solution-oriented approach in framing and processing activities. Ensure success and fun early in the program to reduce performance anxiety and social comparison.
e) Only seek open discussion about background issues such as family history once a level of trust has been established in the group and with staff.
f) Be inclusive of all group members when processing issues, and be careful not to focus attention on any one client in such a way that may create or perpetuate them as the locus of dysfunction in the group.
g) Be very aware of client-to-therapist transference issues – be careful of potentially colluding with other group members in how a client is treated, or supporting their agenda. Maintain neutrality with all clients and parents.
h) Therapy staff may provide very powerful role-modeling of conflict resolution, positive coping styles, parent-child behaviour during activities – anticipate and plan for this.
i) Be ready to set limits on potentially damaging interactions or conflict that might arise between adolescents.
j) Be aware of the limits of trust and support within the group – assess carefully the potential outcome for each client from any group co-operation or trust based activity. Carefully select activities that are within the capacity of the group's functioning to be undertaken positively and in ways that allow for learning and further group development. Discuss the group's functioning before the activity if necessary.
k) Be ready to allocate individual staff to work with particular clients within the group who may be functioning at levels much lower than the majority in the group, for instance, personal organization, cooking, and so on.

11.3 *Additional resources*

Crisp, S.J.R. (2002). *Barwon Health Adolescent Mental Health Service, GO WEST Evaluation Report*, Barwon Health, Geelong, Victoria.

Sawyer, M.G., Arney, F.M., Baghurst, P.A., Clarke, J.J., Graetz, B.W., Kosky, R.J., Nurcombe, B., Patton, G.C., Prior, M.R., Raphael, B., Rey, J., Whaites, L.C. & Zubrick, S.R. (2000). *The Mental Health Of Young People In Australia: Child And Adolescent Component Of The National Survey Of Mental Health And Wellbeing.* Canberra, Australia: Commonwealth of Australia.

11.4 *Program case study – Barwon Health Adolescent Mental Health Service 'Geelong Outdoor Wilderness Experience Support Team' (GO WEST) program*

Client recruitment and assessment

The GO WEST program was established and run by the primary author as the team leader with 2 WAT dedicated staff for the Barwon Health Adolescent Mental Health Service. Six programs were conducted between 2000 and 2001. Clinical case managers of the were asked to refer clients from her existing case load who would likely benefit from a wilderness adventure therapy intervention. These clients had been assessed through a comprehensive bio-psycho-social developmental assessment. After discussing the suitability of each referral, clients were invited, via case managers to attend an information session with their parents/families. After prospective

clients had considered introductory information, those who expressed continued interest were asked to attend an interview with the WAT team (clinical psychologist, social worker and outdoor leader/youth worker) to determine their suitability for WAT. During this interview, goals were negotiated for the participant. Following the interview, participants were asked to complete psychometric measures of psychological social functioning. Following all interviews, a group was selected based on the principle of 'maximum benefit for most'. Clients were then notified of their place in the program.

Program structure

The GO WEST program was a predominantly adolescent peer group model, but combined evening parent-child adventure therapy sessions and multi-family day WAT components – see Table 11.1.

Table 11.1: *A typical GO WEST program timetable*

DAY / DATE	TIMES	ACTIVITY
Tuesday July 11th	2.00 – 4.30	○ Introduction Group ○ Parent Group 5.00-6.00pm
Tuesday July 18th	9.30 - 430	○ Bushwalk & Mountain Bike Descent: Aireys Inlet ○ Teenager & Parent Group 5.00-6.30pm
Monday & Tuesday July 24-25th	10.00 -- > 4.00	○ **Bushwalk & Overnight Camp Out**: Otway Ranges
Tuesday August 1st	9.30 - 4.00	○ Rock Climbing & Abseiling: You-Yangs ○ Parent Group 5.00-6.30pm
Tuesday August 8th	9.30 - 4.00	○ Canoeing: Anglesea River ○ Teenager & Parent Group 5.00-6.30pm
Tuesday August 15th	8.00 - 5.00	○ Cross Country Skiing: Lake Mountain ○ Parent Group 5.00-6.30pm
Tuesday August 22nd	9.30 - 4.00	○ Preparation for Major Expedition ○ Parent Group 5.00-6.30pm
Sunday to Wednesday Aug. 27-30th	TBD	○ **Major Expedition:** Snow Camping & Cross Country Skiing Expedition
Tuesday Sept. 4th	9.30 - 4.00	○ Family Initiative Course Day: Anglesea
Tuesday Sept. 12th	10.30 - 1.30	○ Ceremony & Lunch ○ Parent Group 5.00-6.30pm

Liaison and case-management

Written consent was gained from adolescents and their parents top participate in the program, for exchange of information between the WAT team and any external agencies such as schools or housing workers. Hand-over meetings were scheduled each week with each clinical case manger during the program. Case planning was undertaken collaboratively with the clinical case manager before the program began to co-ordinate roles and responsibilities for all parties involved and to plan post program arrangements such as school placements.

Therapeutic methods

The therapeutic methodology used was facilitated by the clinical child, adolescent and family psychologist of the WAT team with assistance from the WAT team social worker. During the wilderness adventure therapy components, activities were framed according to individual's goals and the themes of the group. They were then debriefed using the Wilderness Adventure Processing System (Crisp, 2001) that utilizes individual structured tick-the-box surveys. This was then used to lead the group into discussion about emerging themes. Group sessions at the beginning of each WAT day activity were used to discuss routine issues about home or school, and the clients appeared to find it useful to gain support and guidance from the WAT team about these issues, as well as strengthening generalization of behaviour changes into the client's normal environment. This was also an effective way of monitoring home and school issues during the program. The expedition focused more on creating a 'safe space' for reflection and discussion about home and school issues. It was critical to promote group cohesion among often quite different presenting issues and problems. This allowed mutual affirmation of personal strengths and altruistic behaviour. Supporting clients to relate to peers and adults assertively, relating with more appropriate boundaries, and communicating feelings more openly were the key issues worked on. The most common themes were the development of productive coping approaches, building confidence, trust and self-acceptance, as well as normalizing clients problems and previous experiences, such as abuse and family problems. Combined parent/family and adolescent sessions in the evenings allowed parents to gain greater insight into their children's problems, exchange parenting skills and instill a sense of hope and optimism with regard to their child's therapeutic progress.

Integration

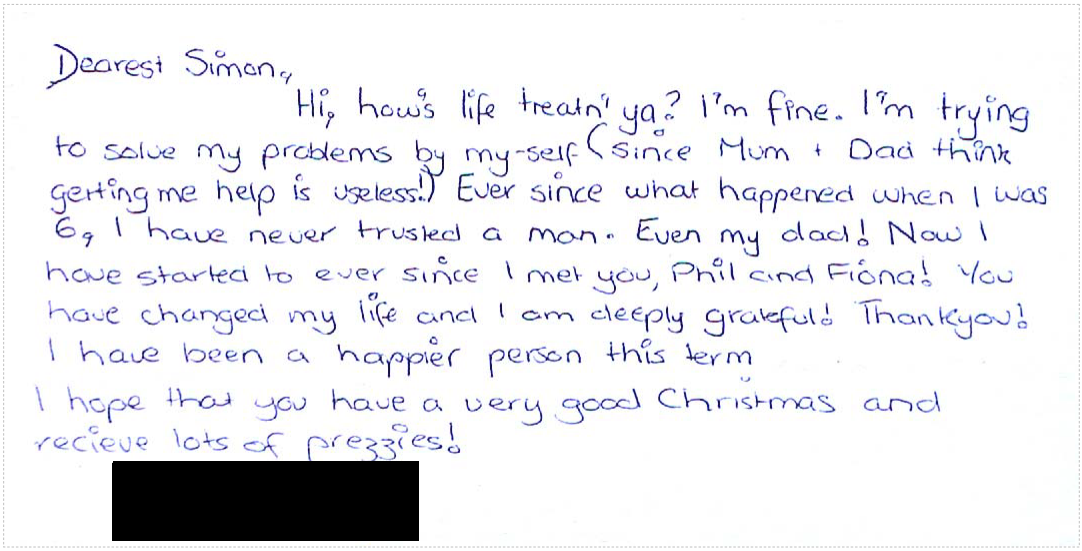
The WAT team social worker's role was primarily clinical liaison with case managers and client's parents. This allowed both the adolescent and parent sessions to be effectively integrated into the broader on-going case management. Further, any crises that arose within the family, or elsewhere, could be quickly addressed by the case manager as appropriate. Finally, any concurrent individual of family therapy outcomes could be communicated efficiently to the WAT team and visa versa.

Referral and follow-up support

During the program, a issues were often identified from some clients such as protective issues and detrimental family factors. The WAT team needed to review treatment plans with clinical case managers to ensure any issues identified were adequately addressed, or followed up post program as appropriate.

Clinical outcomes

For a detailed evaluation of the GO WEST program, see Crisp (2002) and the results reported in Part 2 of this report. Generally, clients demonstrated global improvement in their major mental health problems and a concomitant improvement in psycho-social functioning. Clinical case managers typically reported improved functioning at home, school and with peers. Parents reported improved family functioning and better individual relationships with the identified adolescent client. At follow-up, adolescents reported a general increase in quality of life, reduced concerns about, and lesser impact from their mental health problems following the program. Social relationships typically appeared to be more cohesive and supportive and close friendships more stable and rewarding. Clients reported feeling happier and more optimistic. As an example, a copy of written feedback received from a former GO WEST client is inserted below:



Dearest Simon,

Hi, how's life treatn' ya? I'm fine. I'm trying to solve my problems by my-self (since Mum + Dad think getting me help is useless!) Ever since what happened when I was 6, I have never trusted a man. Even my dad! Now I have started to ever since I met you, Phil and Fiona! You have changed my life and I am deeply grateful! Thankyou! I have been a happier person this term

I hope that you have a very good Christmas and recieve lots of prezzies!

[redacted]

At the time of writing, a 2-3 year follow-up study had been undertaken with 30 former clients. While the results of this follow-up study are yet to be fully analysed, generally the incidence and severity of mental health problems for the clear majority of clients was substantial improved.

12 Attachment Disorder in Adolescents with Mental Health Disorders

Target clients were adolescent clients and their families of the Austin Hospital and Maroondah Hospitals' Child & Adolescent Mental Health Service who had evidence of significant disruption to parent-adolescent attachment as a part of their presentation of mental health disorder. Naturally, these clients had substantial family dysfunction and problematic relationships not just with parents but also with siblings. It was the aim of this form of intervention to be an adjunct to other treatments by addressing the underlying issue of disrupted parent-adolescent attachment. Such attachment problems typically are core etiological and maintaining factors in major mental health disorders such as Depression, Conduct Disorder, Personality Disorder, and so on. The range of diagnostic types in these two programs included these issues in addition to two adolescents with severe and treatment resistant Anorexia Nervosa. Both CAMHS facilitated referral to the programs which were on on-site in each of the hospitals. Maroondah CAMHS provided support with an assistant family therapist who provided valuable clinical liaison with referring Case Managers. Engagement of clients to the program was made easier by support from clinical case-managers. A total of 11 families were referred to both programs, 7 beginning the 2 programs, and 6 completing the 2 programs. This represented 26 participants in total (9 parents, 12 adolescents) who completed the 2 programs.

12.1 *Issues of integrated SWAT service provision*

Establish support from services involved

- Provide information sessions for CAMHS clinicians and educate about the value, limits and constraints of a family based WAT program as an adjunct to conventional out-patient or day-patient therapies, especially in relation to addressing underlying parent-adolescent attachment issues.
- Be clear about the types of families who would and would not be suitable, and the importance of responsive case-management support.
- Allow time for clinicians to discuss the program with potential families.
- Plan and find agreement about appropriate complimentary case-management activities and concurrent therapy: determine who will play which roles.
- Discuss potential risks currently as they exist for the adolescent, and how their involvement in the program may impact on that risk, ie. any suicide risk, alcohol abuse or self-harming or high-risk behaviour.

Designing a service integrated program

- It is desirable that a clinician from the service participate consistently in the program in an assistant-therapist role.
- Determine assistant therapy staff's ability and preparedness to (a) undertake a group therapy intervention, and (b) adapt their approach to a WAT modality.
- Consider how the family WAT program can be of benefit to concurrent therapeutic work. Anticipate that additional issues may be uncovered during the program.
- Ensure a routine to hand-over information to case-managers or other therapists, using proformas that can be included into case files.
- Consider the importance of staff modeling good 'parent-team' characteristics and attachment enhancing interactions with family members - anticipate problematic scenarios.
- When selecting and sequencing activities, consider sequential steps of skill development that strengthen families' ability to take on greater challenges.
- Anticipate the need to negotiate timetabling with all participating families once the program has begun.

Documentation

- Ensure all relevant release forms have been signed to ensure an exchange of information both ways between CAMHS clinicians and the SWATRAD team.
- In the first session provide a brochure of client Rights & Responsibilities for all family members.
- Use the handbook for teachers and youth workers: *Integrating Wilderness Adventure Programs in your school* (Noblet & Crisp, 2004) to help orientate any CAMHS assistant-therapists.
- Prepare detailed information about clothing requirements and information about any outdoor activities such as rafting or ropes courses that may reduce uncertainty and anxiety.

Recruit, select and engage adolescents and families

- A mixture of mental health disorders within any multi-family group would be desirable to ensure parental role-models of different parenting styles and needs.
- Try to ensure any reluctant adolescents will have a similar aged adolescent from other families to make the program more appealing.
- Select families where parents are likely to engage with each other having similar backgrounds, needs or issues.
- Consider single family sessions over a multi-family format for information sessions.
- Ensure that the quality of parent-adolescent relationships has a sufficient level of trust and communication so that exposure to stressful challenges is unlikely to lead to destructive interactions. Ideally, the multi-family group will have at least one good role-model of positive and committed parent-adolescent relationships.
- Carefully assess for the potential for destructive or abusive parent-child interactions.
- Be prepared for a high level of anxiety among families in the first session of the program from fears of social comparison.
- Assess and consider parents styles of relating to the adolescent that may be dysfunctional, be very aware of staff-client interactions that may inadvertently repeat such patterns.
- Before the program begins, identify what the predominant presenting issues are for the group, and what themes are likely to arise. Such themes may appear to have only distant relevance to parent-adolescent relationship. For instance, family communication, co-operation or trust may be issues common to the majority of families. This likely reflects problems that underlie, or contribute to parent-adolescent attachment difficulties.
- Establish group expectations at the outset especially in relation to a solution-focused approach and giving feedback, and reinforce these throughout the program.

Orientate and educate support staff

- Inform staff about indicators for suitability for referral and the aims of the program.
- Clarify that family WAT programs can be effective in bolstering foundational relationship skills such as communication, co-operation and trust-building.
- Educate service staff about how to present the program in a way that conveys a positive and non-stigmatising image and a rationale that is non-threatening to families.

Engage families

- It is important to gain background about each family in terms of presenting problems, history of involvement with the service, and in particular, their responses to the idea of the program.

- Involve families through an information session (that all family members are invited to attend) explaining the purpose and rationale of program. Establish the identified client's view about the referral and their expectations.
- It is essential to engage the identified client effectively as they may refuse to participate if they feel they will be adversely effected in any way by being involved. A high level of skills will be required to effectively 'join' with all family members.
- Both parents, adolescents and other siblings need to have faith that the program will not overtax the families fragile resources and become destructive by increasing conflict or scapegoat the adolescent in the process.

Determine evaluation protocol

- Any discussion about responses to evaluation measures should be done on an individual basis not with the family unless previously agreed.
- Be aware of the effect of data collection on the identified client. Be very careful not to 'single out' the identified client by only collecting data from them. Data about the family functioning should be collected from all family members of the family of old latency age and greater.

Other service delivery tasks

- Choose a venue that families are familiar with if possible that allows for privacy.

Follow-up, program review and sustainability of outcomes

- Plan a follow-up session that gives opportunity for sharing of events that have occurred since the completion of the program.
- Ensure that case managers are briefed on immediate and longer-term outcomes from the program, and are given suggestions about how any changes can be supported.
- Photographs and video-taped material is an especially useful 'whole-family' reinforcement of change.

12.2 *Wilderness Adventure Therapy clinical considerations – 'in the field' issues*

a) Therapist needs to orientate themselves to each family and hold background information as well as formulations for each family at all times.
b) Because group size can be as large as 20 or more participants, therapist needs to adopt a very different style of facilitation than is required for single family or adolescent-only groups. For instance, directing interventions toward the group parental sub-system or group child-subsystem to address issues of their children or parenting issues respectively.
c) It is important to view therapeutic interventions according to group therapy principles rather than from the viewpoint of 'collective family therapy'.
d) Emphasise a solution-oriented approach in framing and processing activities. Ensure success and fun early in the program to reduce performance anxiety and social comparison between families.
e) Only seek open discussion about family background issues once a level of trust has been established.
f) Keep discussion of family issues pertinent to the specifics of the activity – allow families to determine what level of analysis and depth of disclosure they are able to make.
g) Keep verbal processing to a minimum and an ensure a high level of activity to keep younger children engaged. Be aware of the short attention spans of younger children.
h) Arrange for on-site childcare for children under approximately 10 years old.
i) Be inclusive of all family members when processing issues, and be careful not to focus attention on the identified client in such a way that may create or

perpetuate them as the locus of dysfunction in the family. It may simply be a goal of therapy to de-center the problem for the family and to fully understand the systemic influences and patterns.

j) Be very aware of client-to-therapist transference issues – be careful of potentially colluding with parents, or supporting their agenda. Maintain neutrality with all clients, parents and children.
k) The therapist or assistants may provide very powerful role-modelling of parent-child behaviour during activities – anticipate, and plan for this.
l) Consider ways to facilitate inter-family interactions: parent to child, parent to parent, child to child. Encourage exploration of each other's family culture and parenting practices.
m) Be ready to set limits on potentially damaging conflict that can arise between parents. Carefully asses the state of the marital relationship, especially if the parents are separated, or at risk of separating. Be ready to provide additional support to the family and referral or liaison, if a major crisis such as parental separation occurs during the program. However, maintain the focus of the program on the original agenda.
n) Be aware of the limits of trust and support within each family – assess carefully the potential outcome for each client from any co-operative or trust based activity. Encourage client's to sit-out of activities and observe rather than encouraging them to participate in an activity that may result in decreased trust or feeling unsupported. Discuss the issue before the activity if necessary.
o) Be aware of the level of anxiety about not being in control on some activities – ensure a detailed briefing of what they can expect and what the experience may be like for them. Stressed families can easily 'de-compensate' when an activity over-taxes their ability to function effectively and this may be very distressing if it occurs over even short periods such as a day rafting expedition.
p) Clients may find it difficult terminating from the group. Attachment to the program and group may be strong, even over a brief period. Plan for this and encourage the group to remain in contact if they wish to do so.

12.3 *Additional resources*

Bandoroff, S. (2003). Family therapy with a twist and a shake and a shout. 424-252. In K. Richards & B. Smith (Eds.), *Therapy Within Adventure: Proceedings of the Second Iunternational Adventure Therapy Conference*, Augsburg: Ziel.

Gerstein, J.S. (1994). *Experiential Family Counselling: A Practitioner's Guide.* Iowa: Kendall/Hunt.

Kunkel, B.E. (1983). The alienation response of children abused in out-of-home placement. *Child Abuse & Neglect*, 7, 479-484.

Parkes, C.M., Steveenson-Hinde, J. & Marris, P. (1991). *Attachment Across the Life Cycle*. London: Routledge.

12.4 *Program case study – Austin and Maroondah Hospitals Child & Adolescent Mental Health Services 'Families Experiencing Adventure Together' (CAMHS-FEAT)*

Client recruitment and assessment

Clinicians at the Austin and Maroondah CAMHS were given an orientation to the program and then asked to discuss the program with families with significant adolescent-parent attachment problems. Those families that expressed and interest were invited to attend a family information session to meet SWATRAD staff and learn about the programs aims and methods. If families continued to be interested, they were asked to complete a brief 'application form' that sought basic facts about the family and what goals every family committed

to for the program. In total, 9 families began the two programs (one at each site). At the beginning of the first session, each family's goals for the program were discussed in the multi-family group. Participants were asked to complete psychometric measures of psychological and family functioning. Eight families completed the program, with one family terminating mid-program apparently due to increasing social and school commitments just prior to Christmas.

Program Structure

Table 12.1: *The 'FEAT' program timetable*

WEEK	DATE	ACTIVITY
	March Wed 6th	Information Session
1	**March** Wed 20th	**Session 1: Introduction and Goal setting**
2	Wed 27th	**Session 2: *Communication***
3	**April** Wed 3rd	**Session 3: *Co-operation Building***
4	Wed 10th	**Session 4: *Trust***
W/E	Sat 6th or Sun 7th	**Session 5: *Leadership & Team Work – Rafting Day***
5	Wed 17th	***Session 6:*** **Keeping it going / Finishing**
	TBD ~1 mth-post	**Follow-up: *Ropes Course***

Liaison and case-management

Written consent was gained from parents for the exchange of information between SWATRAD team and the CAMHS case managers. Session-by-session hand-over meetings occurred throughout the program to exchange information between case managers and the SWATRAD team. Overall case planning was reviewed to incorporate the therapeutic aims of the *FEAT* program. Follow-up needs were planned for at the beginning of the program.

Therapeutic methods

The program content drew on some activities described by Gerstein (1994) and used similar solution orientated and strategic approaches. A range of brief ice-braker, initiative and trust building activities used were used in the evening sessions. The rafting expedition involved a day of rafting in 11ft inflatable rafts (1 per family) on grade 2 rapids. Activities were facilitated by the clinical child, adolescent and family psychologist of the SWATRAD team and processed with assistance from the CAMHS clinician who joined the SWATRAD Team for the program (in the case of Maroondah CAMHS only). Activities were framed according to family goals and issues identified in previous sessions and the common themes of the multi-family group. Families appeared to find it useful to gain support and feedback from other families, especially across family sub-systems – parent to parent,

child to child. Each session focused on a particular theme. Each session provided a foundation for the subsequent session that became increasingly confrontational because increasing co-operation between adolescents and parents was required. Activities were structured on the level of a whole multi-family group, separate family groups, or parent and child pair configurations. It was critical to empower parents to actively maintain the role of parent and not deputise the therapist to adopt this role. It was important to facilitate a culture of acceptance of different skills and abilities of any group member. In particular, it was important to encourage parents to provide support for their children and praise for achievement. Any positive feedback between parents and children was strongly reinforced. At times, it was important to support adolescents to relate to their parents assertively, and parents to relate to their children with more appropriate boundaries, and communicating feelings more openly. The major theme overall for both programs was the development of trust and acceptance within each family.

Integration

Having the CAMHS clinician as part of the SWATRAD team allowed for an important exchange of information during the program. With many families it was important to feedback gains and critical processes for the family to case managers in some detail. Being able to show video footage was most instructive for case managers.

Referral & follow-up support

As the families referred were assessed comprehensively at intake into CAMHS and case managed intensively during the program, most significant issues were known to case managers, and therefore being managed. However, the intensive and experiential nature of the FEAT program provided valuable insights about systemic dynamics within the family and what opportunities there may be for further gains in other therapeutic interventions such as individual therapy or conventional family therapy. For this reason, the SWATRAD team provided detailed hand-over information about the family to their case manager to utilize in on-going work. Additionally, a detailed 'discharge summary' for the FEAT program was provided for inclusion in the hospital case file.

Clinical outcomes

At the conclusion of the program, families reported significant gains in the overall functioning of the family. They described having greater understanding of each other's needs, having more open communication of feelings and improved skills in resolving conflicts. Most parents reported more frequent and positive interactions between the identified clients and them. Overall, the majority of families reported having gained a greater understanding of the family's strengths and capacities as well as new perspectives on the problems they faced as a family. Children described a major positive outcome of the program was the opportunity to do fun, rewarding and conflict-free activities as a family. Parents reported finding some commonality on the issues of parenting adolescents as a highlight of the program. The majority of families reported less concern with the presenting problems of the identified adolescent client and improved psychological health generally. Identified adolescent clients reported being more optimistic about their problems, being less distressed, and coping better with school and family stressors.

Section E Key Practice Guidelines

13 Program establishment and service delivery tasks

Effective and safe programs begin with comprehensive and complete planning, preparation and follow-up. The diagram below outlines fundamental tasks that surround an effective and safe program. Each stage is discussed in detail below.

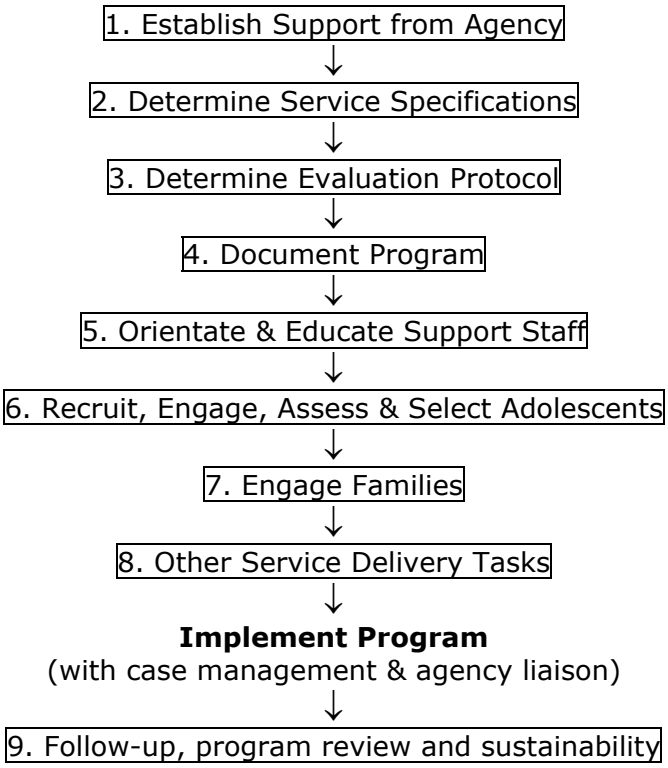


Figure 13.1: *Key program establishment and service delivery task*

13.1 Establish Support from Agency

- Establish conceptual understanding with staff and management
- Engage and educate relevant staff, especially those referring to program
- Address policy, legal and insurance needs and issues
- Establish one key contact/liaison staff member, roles and responsibilities
- Case management protocols: crisis response, internal/external referral options, roles and responsibilities
- Determine lines of communication, confidentiality and release of information protocols
- Establish appropriate timelines for all set-up and delivery tasks (flow chart)

13.2 Determine Service Specifications

- Identify target group, criteria for referral, referral documentation, review and feedback process to develop appropriateness of referral (does target group exist in reality?)
- Determine program aims and outcomes
- Educate staff about required lead time: negotiate tasks and timelines and contingency plans/decision making points

- Develop positive and 'face valid' image/name/description of program, protocol for approaching potential participants
- Address timeframe conflicts
- Establish 'system integrated' program elements: therapeutic and case-management roles, integrated case planning, feedback procedures (eg. handover documentation), liaison, reporting and documentation

13.3 Determine Evaluation Protocol

- Develop evaluation aims that are consistent with program objectives / outcomes
- Select a suitable and realistic evaluation methodology and timeframe
- Determine measures that are relevant, valid and suitable for the client and program type
- Obtain signed consent to collect evaluation information according to Privacy Policy
- Ensure data is kept securely and only available to authorised persons
- Use data appropriately to guide program and individual case planning and follow-up responses and referral as necessary (ie. suicidal ideation)

13.4 Document Program

- General information about program, and service provider
- Timetables
- Information sheets: adolescents, parents, agency staff
- Charter of Rights & Responsibilities
- Statement of Information and Privacy Policy
- Protocol for gaining informed consent, permission to participate, liability disclaimer and medical information

13.5 Orientate and educate support staff

- Hold information session to orientate staff to program aims, methods and processes
- Brief staff on roles and responsibilities, links to program staff, other professionals/agencies involved

13.6 Recruit, Engage, Assess & Select Adolescents

- Plan for ways to capture a large number of potential clients (up to twice as many referrals as places), including broadening the definition of, or re-framing target group characteristics to improve the appropriateness of clients selected
- Conduct information session, distribute documentation / consent forms (if required), and individual interviews post-information session
- Address barriers to, or requirements for client participation, put in place supports necessary for involvement
- Emphasize to referring workers that reluctant clients need to be strongly encouraged to meet directly with program staff, at least once, to discuss concerns before exclude them as a potential referral, rather than workers making decision about their motivation. Remind worker and client that it is frequently the most reluctant clients who get the most from a program
- Assess appropriateness for program, if suitable, develop client's motivation towards own goals and program aims
- Select appropriate group from pool of referrals – offer place in program, confirm place acceptance
- Allocate individual staff to engage participants as key contact person, if appropriate, to monitor goals with client and liaise with significant others

13.7 Engage families

- Information session to orientate the family/parents to the program aims, expectations, rights and responsibilities

- Develop a therapeutic alliance with families, by using the program aims to underscore the importance of being centrally included in the program.
- Assist families to set goals for themselves, and commit to supporting other family members to achieve their goals.
- Assist families to monitor their progress toward individual and family goals

13.8 Other Service Delivery Tasks

- Determine program delivery logistical issues / needs
- Establish on-going review and feedback procedures from all stakeholders
- Complete Clinical Termination and Follow-up Tasks

13.9 Follow-up, Program review and Sustainability

- Review program and outcomes from agency perspective – feedback evaluation results and consumer feedback; gain agency feedback.
- Make recommendations to agency, and plan for program improvements for future programs (document).
- Liaise with referrers before and after follow-up session about progress and follow-up outcomes
- Follow-up any clients who don't attend the Follow-up session.
- Be ready to refer on any client if any outstanding issues are identified at follow-up.

14 Wilderness Adventure Therapy Program Provision

14.1 *Therapeutic approach*

It is important to be clear in implementing any WAT program about what the intended aims are, and therefore what approach will being taken. In particular, whether the program is aimed at 1) early intervention with as yet, undetected indicated (at-risk) clients, 2) community counselling where clients have already sought help and the WAT program is part of on-going case management, or 3) clinical treatment that may be part of a multi-pronged approach within a comprehensive range of clinical services.

Each of these situations require quite different approaches in WAT program design, and in particular, what roles, responsibilities and relationships the WAT team will need to assume. The specific detail of each of these approaches is well described in under each section above. Generally, much of the WAT teams activities are focused around the pre-program establishment, recruitment, assessment and intake steps and then the follow-up and referral on stages of the program. At times, implementing the WAT program itself is relatively straightforward, especially if all these other tasks are attended to thoroughly and accomplished competently.

14.2 *Consumers' perspective*

Clients referred to a WAT program typically have little prior knowledge of WAT, nor any previous experience of being involved in any structured outdoor activities. This fact behoves the WAT team to ensure that clients and their families are adequately and realistically informed about what this therapeutic experience will, and could involve. This ethical imperative to ensure the client is in the best possible position to give informed consent is a fundamental cornerstone of any therapeutic relationship or therapeutic activity and is essential to maximize the potential gains for the client. WAT practitioners must be clear about what this process involves and how to competently undertake it.

Importantly, informed consent from the client will be critical in order for him or her to determine their readiness to undertake therapeutic change through a WAT program. WAT practitioners should be conversant with models of client motivation (Pearce & Boyes, 2002) and be able to assess the client's motivation, and their likelihood of benefit from WAT. Indicators of likely successful utilization of a WAT program can include the level of involvement, and quality of relationship with the referring professional or agency, in addition to their history with previous therapeutic attempts. In fact, practitioners may need to determine what the aims are for the client, and then whether there is a fit with the aims of the program. For instance, if the client fundamentally need to be engaged into a helping relationship, then a program that aims to make substantial and difficult behavioural changes may be inappropriate for the client at that point in time, and may be better suited for a program that has an early intervention focus which may aim primarily to engage clients with the service as a first step.

Finally, WAT is a *participatory* model of treatment, which views the client as a participant in their own treatment, rather than assuming a traditional 'patient' role. This perspective gives rise to a fundamentally different quality in the relationship between client and therapist or WAT team. Here, the therapist needs to assume a much greater collaborative and facilitative stance with regard to the client, than would be the case in conventional therapy or outdoor leadership. Further, the therapist needs to be highly skilled in establishing and maintaining boundaries within a highly challenging work environment, and on the other hand, capable of forming intimate therapeutic relationships with clients to engender their trust. Clearly the skills of the Wilderness Adventure Therapist and WAT team staff need to be highly developed and it behoves all practitioners to undertake training in order to be competent in these areas. Consistent with the practice guidelines

detailed here, this training is available through the Australian Wilderness Adventure Therapy Accreditation Scheme (Crisp, 2002).

14.2 *Service integrated model*

The SWATRAD project was based on an *out-sourced* model of service provision. That is, the staffing expertise, resources and procedural infrastructure are provided by a team (or organization) external to each client agency. However, the programs and procedures, as well as the Barwon Health program described here, were approached as *service integrated* designs. That is, the WAT services, team roles and relationships and program designs were implemented within the services involved and resulted in a high level of service integration in terms of assessment, referral, case-management and follow-up procedures. This service approach contrasts with multiple-referral pathway service model that is a stand-alone service that external agencies refer-on their clients to a pre-existing, universal program. These programs are not service integrated in the sense used here.

It could be argued that an out-sourced service approach may be substantially more economical and preferable by utilising an experienced and accredited WAT provider, than referring clients out to a universal program or going through the long and difficult process of establishing an in-house WAT service. In fact, this latter option may actually prove to be a false economy, and may even be contra-indicated unless a certain level of funding and appropriate dual-trained staffing profile can be recruited (as well as funding for expert consultancy).

There are many advantages in this model. First, a consulting WAT team is able to offer considerable pooled expertise, resources and procedural infrastructure immediately for any agency or program. This is a major strength over an agency attempting to establish their own WAT team in-house, as long as the out-sourced consulting WAT team sufficiently engages the host organization and adequately establishes the appropriate recruitment, intake and assessment processes described above.

In any case, these guidelines detail the minimum standards and procedures required to ethically provide best practice WAT. The most realistic way to attain competency in these methods is to undertake training in these methods as provided through the Australian Wilderness Adventure Therapy Accreditation Scheme (AWATAS) (Crisp, 2002). This scheme has outlined in detail the competency areas and provides a mechanism for ensuring the attainment of minimum competency in the requisite areas for both adventure leaders and therapeutic professionals.

15 Team Skills, Processes and Team Leadership

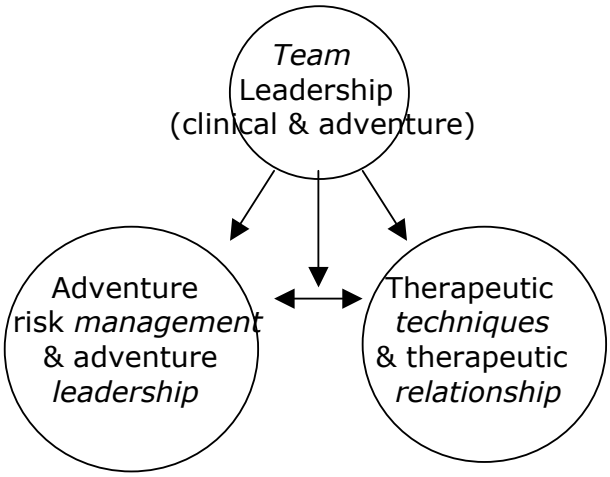
NB: This section is an adapted extract from the *Introduction to Wilderness Adventure Therapy® Course Manual* (Crisp, 2002) - Australian Wilderness Adventure Therapy Accreditation Scheme.

Currently in Australia there are no formal training schemes or courses in Wilderness Adventure Therapy except the *Australian Wilderness Adventure Therapy® Accreditation Scheme* (AWATAS). Similarly, there are no standards or any professional body that regulates the practice of Wilderness Therapy or Adventure Therapy. At the date of writing, the AWATAS is the only formalised training available and is the only currently recognisable benchmark of professional standards. It was the need to *professionalise* the field of adventure and wilderness therapy that was the impetus for the development of this training and the accreditation scheme that it forms part of (Crisp, 1996). The model of Wilderness Adventure Therapy evaluated and described in these guidelines is the model used in the training through the AWATAS.

In thinking about the staff skills is must be remembered that WAT *is not* simply experiential learning models applied to therapeutic client groups. Best practice WAT involves a complex application of a) principles of program design, b) staff competency, and c) clinical diagnostic, therapeutic and programming procedures and processes. Most often Wilderness Adventure Therapy *Teams* will implement WAT because of the rarity of people fully qualified as Wilderness Adventure Therapists. WAT teams should include two types of staff who are fully qualified in either adventure leadership or therapeutic professional training. Of equal importance, they also have a sound knowledge and applied skills in the specialised practice of Wilderness Adventure Therapy.

By definition, a Wilderness Adventure Therapist will hold qualifications in all of these three core areas. First, the Wilderness Adventure Therapist should hold qualifications and relevant experience (group therapy, work with specific client populations) in a therapeutic profession that is based on a code of ethical practice, and requires that qualified graduates have been trained and supervised to a satisfactory level in clinical settings implementing and evaluating interventions with clients. Such professionals include Psychologists, clinical Social Workers, Occupational Therapists, and Psychiatrists. Second, the WA Therapist should hold qualifications at the current industry standard in adventure leadership and have gained substantial experience. Finally, the Wilderness Adventure Therapist should have knowledge and applied skills in the specialized application of Wilderness Adventure Therapy, including a thorough understanding of ethical and team role issues.

Component *roles* of WAT Teams involve 3 areas: (1) wilderness & adventure leadership, (2) clinical & therapeutic techniques, and (3) Team Leadership that encompasses all areas of the team's roles:



Different team compositions:

Type-I Team (2 adventure trained + 1 clinician) – NB: *least* ideal team composition

2x WAT Practitioners (adventure facilitator) +
1x WAT Practitioner (clinical facilitator)

Type-II Team (1 adventure trained and 1 dual-qualified)

1x WAT Practitioner (adventure facilitator) +
1x WA Therapist (should be Team Leader)

(Eg. *SWATRAD* programs)

Type-III Team (2 dual-qualified)

2x WA Therapists (one designated Team Leader)

(Eg. Austin CAMHS – *BIP* program)

A further team type is likely to be common when working with clients with high therapeutic needs:

Type-IV Team (1 adventure trained + 1 clinician + 1 dual-qualified) – NB: *most* ideal team composition

1x WAT Practitioner (adventure facilitator) +
1x WAT Practitioner (clinical facilitator) +
1x WA Therapist (should be Team Leader)

(Eg. Barwon Health – *GO WEST* program)

Every WAT Team is a unique combination of skills and background experiences. Despite this divergence, all WAT Team members need to apply themselves rigorously to ensuring all skill requirements are accounted for within the Team and that role and responsibilities are clear, realistic and practical. When a WAT Team does not function well, each staff's potential to assist their clients rapidly diminishes. It is a supportive, disciplined and highly functioning Team that provides the platform for the best possible therapeutic work to be done. Achieving this 'platform' should always be an utmost priority for all staff on any team.

WAT Team role descriptions

Team Leader *(Dual Trained: Eg. Clinical Psychologist + Adventure Facilitator)*

1. Responsible to Agency Clinical Co-coordinator for WAT Team and service delivery
2. Supervision of clinical work and WAT specialized practice of team
3. Team performance re: patient safety & therapy
4. Supervision and implementation of program planning, development and review
5. Oversee and supervise Clinical and Wilderness Adventure Co-ordinator roles
6. Co-ordinate program evaluation and quality assurance tasks

Clinical Co-ordinator *(Eg. Child & Adolescent Mental Health Social Worker)*

1. Responsible to Team Leader for clinical interface issues
2. Liaison with Agency staff Re: referral, screening, crisis response, therapeutic progress in program
3. Responsible for written (and verbal handover if required) to Agency staff
4. Set and co-ordinate referral deadlines, information and other sessions
5. Co-ordinates WAT Parent Group or other components
6. Typically attends Agency intake meetings as required
7. May delegate appropriate communication tasks to Wilderness Adventure Co-ordinator

Wilderness Adventure Co-ordinator *(Eg. Adventure Facilitator & Youth Worker)*

1. Primarily responsible to Team Leader for program logistics, safety and risk management, first-aid and medical, program management
2. Liaison with Agency management on programming issues (dates, times, program 'house keeping')
3. Responsible for documentation re: program, emergency response, emergency services liaison, etc
4. Responsible for petty cash, vehicle, room and equipment bookings, etc.
5. Organise non-clinical client documentation, inc. medical information, consent forms, etc.
6. Assist in the education, referral and induction process by producing relevant documentation

Some problematic issues in WAT Teams:

- Isolation and lack of direct supervision or additional unpredicted supports needed
- Working with sessional sub-contractors and professionals with little WAT or therapeutic skills or knowledge
- Divergent or incompatible practices, assumptions or expectations
- Lack of previous working relationships
- Lack of clarification of roles, responsibilities and/or Team Leadership
- Failure to discuss and negotiate overlapping areas of competence or issues that have both therapeutic and adventure implications (usually because of a lack of understanding of the specialized skills and methods of WAT)
- 'Split' thinking: either outdoor perspective or therapeutic perspective
- The Team becomes 'split' through unquestioned advocacy for the client group, one section of it, or one individual (a common phenomena of *parallel process)*
- Poor conflict resolution or negotiation skills, or poor or indecisive Team Leadership
- In Type I Teams, allocating an appropriate staff to be the Team Leader who is able to hold both *adventure* and *therapeutic* perspectives
- In Type I Teams, the 2 Adventure Facilitators over-step their role and over-ride the Clinical Facilitator on *therapeutic* issues and practices
- Need for team building *before* a program with new / large staff teams

Some issues for dual-trained staff

When an *adventure leader* becomes dual-trained as a therapist, a significant challenge they often face is re-thinking and changing habits and practices associated with conventional outdoor leadership and outdoor education practices that have become 'second nature'. These typically include establishing appropriate boundaries and inter-personal behaviours such as self-disclosure that develop the most therapeutic 'stance' with their clients.

When a *therapist* becomes dual-trained with adventure leadership skills, a significant challenge they often face is fully filling the adventure leadership role. Such professionals often find it counter-intuitive to be actively and physically involved with clients in terms of their physical wellbeing and safety, especially medical or first-aid issues. Merging a psychotherapeutic role with a practical, medical and safety management role creates feelings of conflict, especially in terms of establishing and regulating boundaries.

For professionals making either type of transition, the tendency to 'fall-back' into a more familiar role may occur on issues, and at times when there are both adventure and therapy considerations or responses required.

Key elements of effective and therapeutic WAT Teams:

- **Team Leadership** is formally established, is clear to all staff and discussed: clinical and adventure aspects
- **Team roles** are clear and negotiated before program commences, with each activity – reviewed as needed (this is considered usual and common practice)
- ***Parallel process* & systems issues** are assessed for, acknowledged and strategies developed to manage – systems concepts are used to understand client group system effects on the Team system and broader system issues effects on the both these systems
- All staff are genuinely committed to the importance of **Team Communication**
- **Team meetings** are held routinely: morning, mid-day and evening
- **Client review meetings** are held routinely: morning or evening
- **Critical incidents** are reviewed immediately by whole Team – action plans and role are clear to all

Additional Resources:

Preist, S. & Gass, M. (1998?). *Effective Leadership in Adventure Programming.*

Australian Wilderness Adventure Therapy® Accreditation Scheme (Crisp, 2002): www.youthpsych.com.au

16 Ethical Issues

NB: This section is an adapted extract from the *Introduction to Wilderness Adventure Therapy® Course Manual* (Crisp, 2002) - Australian Wilderness Adventure Therapy Accreditation Scheme.

18.1 *General ethical issues*

The use of stress, exposure to physical danger and psychological trauma and considerable physical dependency on the WAT staff pose unique ethical issues for Wilderness and Adventure Therapy as a treatment. Crisp (1996) identified some key areas that can pose ethical dilemmas including:

- Use of stress, exposure to risk, isolation from other resources to treatment vulnerable clients – risk of worsening problems (principle: *do no harm; risk-benefit analysis*)
- adequacy of therapist/Team skills, therapist qualifications (dual training as a clinician and outdoor educator), multiple role of the therapist
- lack of common practices & universal standards
- sexual and boundary issues
- power and control of the therapist (Mitten, 1994), gender and cultural issues, social stereotyping
- informed consent: withholding information, distorting perception, deception
- captive populations, involuntary treatment and the use of coercion
- conflicts between individual versus group benefit
- Lack of evidence base to the efficacy of WAT with certain types of clients
- rights of the client, minors, treatment discontinuance
- certainty of therapeutic (vs counter-therapeutic) outcomes
- client dependency and multiple roles of the therapist/Team, boundary issues
- self-prescription of high-risk activities

It is both surprising and concerning that client rights and ethical issues don't take a greater place in the literature and discussion within the field. Exceptions to this are the emphasis on therapist qualifications given by Davis-Berman and Berman (1994), and a nominal code of ethical practice produced by the Therapeutic Adventure Professionals Group of the A.E.E. (Gass, 1993). Despite many publications on theoretical and technical topics, papers on ethical issues pertinent to adventure and wilderness therapy are few and tend to be limited in their coverage.

Some unique and important issues that require consideration include the following.

1. Significant physical dependence clients have on WAT staff,
1. Forming and maintaining appropriate and therapeutic boundaries where these are frequently challenged by the nature of activities and multiple roles the staff assumes,
2. The unique and multi-faceted role of the WAT staff in a living situation with their clients (including managing 'transference' in the client and 'counter-transference' in the staff), physical dependence of the client on the therapist, therapist qualifications and competencies,
3. The use of activities which have the potential to cause injury, death or psychological trauma as a form of therapy,
4. Deliberate use of stress and exposure to risk,
5. Involuntary treatment, informed consent, use of deception,
6. Using methods whose psychological processes are thought to be powerful but are not fully understood,
7. Peer group coercion to modify behaviour.

Despite the "full-value contract" for clients to negotiate with the peer group as part of the Adventure Based Counselling approach (Schoel, Prouty & Radcliffe, 1988) there are no comprehensive guidelines for therapists on the rights of clients that sufficiently address issues relating to the needs of clients in isolated wilderness programs or adventure therapy programs. While such rights would naturally vary to some degree depending on country, state and mandate of the adventure or wilderness therapy service, every program should have this written and available to clients.

The statement of *Client's Right & Responsibilities* that is proposed by the Australian WAT Accreditation Scheme is reproduced below:

Your Rights

- You have the right to expect professional and respectful care from appropriately trained staff
- You have the right to be free from harassment, bullying, intimidation or any behaviour of staff or clients that is threatening or causes you to feel, or be, unsafe
- To expect that the information concerning you is treated with confidentiality by all staff
- To be given adequate information about programs and services in terms that are understandable to you
- To make informed decisions about your own involvement in programs or services, including consent to participate in educational or research projects
- To have an advocate present (friend, family or interpreter) at meetings or interviews (where practicable)
- To be aware that it may be beneficial for appropriate staff to discuss some or all of your situation with other professionals outside of this organization, and that this will only be done with your written consent unless immediate safety concerns dictate
- To be aware that your progress may be documented to ensure important information is available to staff to guide the services you receive
- To have access to your records upon application – please discuss this with staff
- To make complaint about the program or service you receive and expect that this complaint will be investigated fairly. Any complaints should be made to the staff concerned or the Director of the service (Name & contact details)
- To expect services you receive to be unaffected by a complaint being made

Your Responsibilities

- You have the responsibility to give accurate information about yourself that may be relevant to the service you are receiving, which may include medical or other information, in order to receive adequate advice and care, and to update staff if this information changes
- To respect the privacy of others using the service or participating in a program, and to keep any information shared by other participants confidential
- To respect the safety (both emotional and physical) of other clients and staff, including keeping yourself safe and contributing positively to a safe environment for all
- To ask for assistance or advice when needed, and to inform staff of difficulties you may be experiencing that may affect your safety or participation
- To notify staff of dissatisfaction so that appropriate action can be taken. Failing that, to notify the Director of the service, if your concerns have not been adequately handled
- To cooperate fully with program or service requirements, and ask for clarification if you do not understand what is expected of you. It is your responsibility to accept the consequences of your decisions not to follow advice given, or follow guidelines or safety directions
- To keep appointments and attend all aspects of the services offered and complete all program requirements, or give early notification of cancellation or withdrawal from a program

The innovative approaches of Wilderness Adventure Therapy hold significant novelty for consumers as a form of therapy. With this comes a need to educate consumers about

what is therapeutic about these methods and how these methods are different from typical adventure experiences through outdoor education programs. There is a risk that consumers and mental health administrators will attempt to use standard outdoor education as an alternative treatment for mental health problems, and non-therapist outdoor education practitioners may be tempted to encourage this notion. This seems potentially deleterious for consumers and for public support and confidence in the field of both outdoor education and Wilderness Adventure Therapy.

18.2 *Gender and power issues*

Many concerns are raised about the differential appeal to both sexes of this form of therapy. It is a consistent finding that females were just as interested in wilderness and adventure approaches as males in mixed sex programs, and certainly in single-sex programs. Indeed, clinically, it appears that the impact for females from WAT to be greater, on average, for females than males. This may be due to the opportunity to break from traditional roles for females.

As much of WAT involves use of the body, physical touch, peer encouragement, overnight living situations, and so on, there exist unique opportunities for problems related to gender and power issues. Power differences often exist in traditional family roles and cultures. This can require that peer influences should be carefully monitored so as to not be exploitative nor oppressive. As many clients may have come from oppressive or exploitative relationships (for both male and female clients), there exists a high risk that inter-personal patterns may develop between clients, or between client and therapist that further reinforce their past experience. In the extreme, this could lead to sexual exploitation (assault). Mitten (1995) provides a good discussion on many of these issues. For WAT staff, it is vital that they have a good clinical understanding of 'transference' and 'counter-transference' issues, and are clear about, and skilled in maintaining appropriate and therapeutic boundaries. Mixed sex staff teams seem important for ensuring staff self-monitoring of client-therapist boundaries, as well as client-client boundaries.

Aside from staff awareness and monitoring of these inter-personal dynamics, it is also imperative that clients have access to staff role models of both sexes. It is especially useful for staff to model appropriate, non-oppressive and non-exploitative relationships with each other and with clients. Appropriate resolution of any power issues or conflict, can be effectively modeled by staff for clients' benefit. Staff should be able to confidently and effectively break from traditional roles in the division of tasks, styles of inter-personal relating, and so on.

18.2 *Confidentiality*

In general, all client and participant communications with staff, or that staff come to have knowledge of, is confidential unless other arrangements have been made, all parties are aware and there is written documentation to this effect. In cases where there is information that staff become aware of that may indicate a risk of harm to a client or any another person, staff may convey such information to the extent necessary to protect any person from harm. All staff must abide by State and Federal laws pertaining to privacy of information and confidentiality.

All documentation supplied by clients and documentation produced about clients by staff are confidential and subject to privacy laws. All documentation must be kept securely and accessed only by authorised persons. WAT staff must at all time be aware of maintaining boundaries of confidentiality for their clients.

The principles of confidentiality exist to ensure that client's are able to freely communicate information and disclose feelings and facts to a therapist as part of the therapeutic relationship. This is done in order to achieve the goals of therapy, as well ensure that the

welfare of the client was secured. In this context, the following points must be remembered:

- All information gained is subject to Privacy legislation and so the purpose of that information gathering, and how the information is used must be made overt to the client before the information is gained,
- Professionals must be clear to themselves and their client what the boundaries are for information given, ie. who else may have access to the information,
- The limits of confidentiality must be made clear as early as possible in the relationship and before any sensitive information is disclosed – ie. duty of care to ensure the safety of the client or others,
- Information must only be sought that is relevant and consensually given – invasive information gathering or seeking unessential facts or detail may be voyeuristic and unethical,
- The client furnishes information about themselves as a matter of trust in the context of a therapeutic relationship, and professionals must at all times be aware of how client information is used and whether this may adversely affect that trust.
- Confidentiality extends to a person's identity being made available or acknowledged to another without their consent, eg. photos, videos, members of the public asking "what sort of program are these kids doing", or others people asking if a person has attended a program "did Jonny Smith do your program".

Resources:

Cole, E., Erdman, E & Rothblum, E.D. (Ed.s) (1994). *Wilderness Therapy for Women: The Power of Adventure*. NY: The Haworth Pres.

Hunt, J. (1986). Ethical Issues in Experiential Education, AEE, Kendal/Hunt.

Part 2 Project Evaluation

An evaluation methodology was developed to best suit the needs of each client group and agency. To ensure converging and valid indices of clinical change, this approach was based on a partial multiple-domain assessment (Brokovec, 1994 cited in Newes, 2001). Consequently, measures included (a) standardised psychometric measures covering a range of relevant psychological domains, (b) customised questionnaires to measure agency specific outcomes (c) a process survey to gauge the process of change, and (d) customised qualitative consumer and carer outcome and satisfaction questionnaires. Data was aggregated and subjected to inferential statistical analyses where appropriate.

For a range of ethical and practical reasons, control group comparisons were not able to be conducted in evaluating the outcomes of the SWATRAD trials. For instance, as is frequently the case with clinical research, it would be unethical to deny needy adolescents access to treatment simply so they could service as a comparison group to better validate the treatment others were undertaking. A second, less ideal option, would be to use participants who were on a waiting-list and not receiving treatment as a comparison group. Again, this option poses significant ethical problems, and in the case of the SWATRAD project, it was deemed substantially impractical and unlikely to provide a reliable or large enough sample in any case.

To provide some perspective for the results obtained from the SWATRAD trials, SWATRAD data was compared to data from 2 sizeable samples from other Wilderness Adventure Therapy (WAT) program studies. These investigations used identical, or comparable measures over similar timeframes and investigated comparable client groups. The first dataset was gathered from participants of a mental health day-program where Wilderness Adventure Therapy was a significant component of their treatment (Crisp, 2003). The second dataset, was gathered from participants from a WAT (only) program for adolescent out-patients from an adolescent mental health service (Crisp, 2001). The later WAT program (GO WEST) is described in detail in the Practice Guidelines section (Part 1: page 52), as a case study of the WAT program being used as a clinical treatment approach for mental health disorders. These datasets are useful as comparison samples as they represent client groups with increasingly severe mental health problems, paralleled with interventions of increasing intensity. The meaning of these comparisons is discussed with each respective presentation of data.

This following section first describes the psychometric measures used, and follows with a detailed profile of the client group investigated. The psychometric outcomes (results) from pre-program to post-program are then presented. Following this, qualitative results are presented then proceeded by a full discussion of the evaluation section.

Section A: Measures Administered

1 Introduction

The following psychological questionnaires were administered throughout the SWATRAD program, and were also used (when available) in the comparison programs i.e., GO WEST and Brief Intervention Program (BIP):

Youth Self-Report (YSR; Achenbach, 1991)
Beck Depression Inventory (BDI & BDI-II; Beck, Steer & Brown, 1996)
Life Attitudes Schedule – short form (LAS; Rohde, Lewinsohn, Seeley & Langhinrichsen-Rohling, 1996)
Coopersmith Self-Esteem Inventory (SEI; Coopersmith, 1967)
Adolescent Coping Scale – short form (ACS; Freidenberg & Lewis, 1993)
Scale of Social Competence & School Adjustment (SSCSA; Walker-McConnell, 1995)

Table 2.1: *Psychometric measures completed at Pre-program, Post-program and Follow-up for SWATRAD, GO WEST and BIP clients.*

Program	Pre-Program	Post-Program	Follow-up
SWATRAD	• YSR • BDI • LAS • SEI • ACS • SSCA (*ACE*)	• YSR • BDI • LAS • SEI • ACS • SSCA (*ACE*)	• YSR • BDI • LAS • SEI • ACS • SSCA (*ACE*)
	Pre-Program	Post-Program	Follow-up
GO WEST	• YSR • BDI • LAS • SEI • ACS	• YSR • BDI • LAS • SEI • ACS	• YSR • BDI • LAS • SEI • ACS
	Pre-Program	Post-Program	Follow-up
Brief Intervention Program - *BIP*	• YSR • BDI • ACS	• YSR • BDI • ACS	• YSR • BDI • ACS

To measure mental health symptoms, level of depression, productive and non-productive coping, the following instruments were administered at Pre-program, Post-program and at Follow-up. The Youth Self Report (Pre-program and Post-program) provided a general measure of a range of mental health symptoms; the Beck Depression Inventory measured the extent of depressive symptoms; the Life Attitudes Scale measured the frequency of life threatening and life enhancing attitudes and behaviours, potential suicide risk and future life-threatening and risk-taking behaviours; the Coopersmith Self-Esteem Inventory measured several domains of self-esteem; the Adolescent Coping Scale – Productive and Non-Productive subscales measured the frequency of productive and non-productive adolescent coping styles and the Scale of Social Competence & School Adjustment was used to assess school functioning. Finally, a structured survey – the Wilderness Adventure Therapy Resilience Survey (constructed by Crisp, 2001) was used to gain information about the quality of relationships, optimism and trust, and coping history following treatment.

In Australian adolescents, self-report has been shown, to be a more sensitive method of assessing the levels of symptoms associated with psychological disturbance than was parent report of symptoms (Sawyer, et al., 2000). Due to the adolescent focused nature of the program, adolescent self-report measures were considered to be a more appropriate and reliable method of measuring psychological risk factors. Further, some participants were homeless and parent-based data was likely to be unavailable.

1.1 *Youth Self Report*

The *Youth Self Report* (YSR) is designed to assess competencies and problems in 11 to 18 year olds (Achenbach, 1991) using 112 items and is based on the Child Behaviour Check List for children (Achenbach, 1991). The self-report aspect of the instrument uses the adolescent's own view of their functioning, in terms of both competencies and problems, to obtain a global estimate of the adolescent's mental health and psychosocial functioning (Achenbach, 1991).

Several of the YSR syndromes approximate recognised DSM diagnoses (American Psychiatric Association, 1994) and empirical support for these comparisons has been found (Weinstien, Noam, Grimes, Stone and Schwab-Stone, 1990 cited in Achenbach, 1991). However, the purpose of the present study is to evaluate the efficacy of an intervention for psychological problems and not to address theoretical issues of diagnosis therefore formal DSM diagnoses were not included in the present discussion, and statistical changes in YSR scores were investigated instead.

Interpreting the YSR is done by comparing *T*-scores on the Internalizing, Externalizing, and the Total problem scales to establish symptom profiles broadly. The *T*-scores from the eight clinical syndrome scales were used to establish specific syndromes. The use of *T*-scores allows the comparison of psychological problem severity, as a deviation from the norm. For example, a *T*-score of 67 indicates a percentile rank of 95, and is considered to indicate that the individual is experiencing a clinically significant level of psychological symptoms from that domain, that is, they reported more of those symptoms than 95% of the normal population (Achenbach, 1991)

1.2 *Beck Depression Inventory*

The Beck Depression Inventory is a 21 item self-report inventory of depressive symptoms, which is designed to assess the severity of depressive symptoms in adolescents and adults (Beck & Steer, 1987). Since the revised version was introduced in 1971, it has been one of the most widely used instruments for assessing depression in psychiatric populations (Piotrowski, Sherry and Keller, 1985; cited in Beck and Steer, 1987) and screening for depression in normal populations (Steer, Beck and Garrison, 1985; cited in Beck & Steer, 1987). The authors report no significant age differences in mixed age populations (Beck, Steer & Brown, 1996) and its use in adolescent populations has been empirically supported, in clinical adolescent samples (Ambrosini, Metz, Bianchi, Rabinovich and Unidie, 1991; cited in Beck, Steer & Brown, 1996) and normal adolescent samples (Roberts, Lewinsohn and Seeley, 1991; cited in Beck, Steer & Brown, 1996).

In interpreting the BDI total score, each of the 21 symptom items is graded into four degrees of severity where the respondent endorses any and/or the most severe option. Items scores are then summed to yield an overall depression severity score between 0 and 63. *Total* scores within 0 to 13 are considered within the normal range, or asymptomatic. A total score between 14 to 19 indicates mild to moderate depression, while scores of 20 to 28 indicate moderate to severe depression. Scores between 29 and 63 indicate extremely severe depression.

1.3 *Life Attitudes Scale*

The Life Attitudes Scale - Short Form (referred to as LAS in this paper) has 24 items, and is an

abbreviated version of the full 96-item version of the LAS. The LAS was developed by Lewinsohn, Langhinrichsen-Rohling et al. (1996) to measure a broad array of life threatening behaviours (including self-harm and suicidal behaviour). The original version was predicated on a theoretical model that separated life-threatening behaviours into three types: actions, thoughts and feelings. These behaviours were considered to fall on a continuum from positive (life enhancing) to negative (life threatening). Behaviour was categorised into four content types: 1) death related behaviours, including suicidality and longevity, 2) health related behaviours, including assessment of illness, self-care, health and wellness, 3) injury related behaviours, including risk-taking and safety, and 4) self related behaviours, including enhancement or compromise of self-worth, accomplishments and self-image. Items were developed to be relatively independent of self-reported depression, hopelessness and social desirability.

Rohde et al. (1996) report lifetime suicidal ideation is maximally predicted (with minimal false-positives) with a total score of 10 or more. Adequate sensitivity (= 0.80) and specificity (= 0.77) were also reported and the scale had a positive predictive value of 0.62. The authors report that the use of the original (long) version of the LAS did not improve screening ability beyond the Short Form.

1.4 *Self Esteem Inventory*

The Coopersmith Self-Esteem Inventory is a 58 item self-report questionnaire that measures the adolescent's feelings and beliefs about oneself (Coopersmith, 1967). It is designed to measure evaluative attitudes towards the self in four main areas; social, academic, family and personal areas of experience. The questionnaire provides scores in *General* self-esteem, *Social* self-esteem, *Home* self-esteem (including parents) and *School* self-esteem (including peers) subscales. The participant responds True or False to each item, endorsing that the statement is 'like me' or 'unlike me'.

1.5 *Adolescent Coping Scale*

The Adolescent Coping Scale was developed as a self-evaluation questionnaire from high school student generated descriptions of coping behaviour (Frydenberg & Lewis, 1990). The short form is an 18 item questionnaire which was developed from the Long form (79 items), and assesses 18 dimensions of student coping behaviour. Five-point Likert scales are used to rate the frequency of one's use of particular coping strategies. A factor analyses revealed eighteen factors, categorised as the following coping styles: (1) seeking social support, (2) focusing on solving the problem, (3) working hard and achieving, (4) worrying, (5) investing in close friends, (6) seeking to belong, (7) wishful thinking (8) not coping (i.e., developing psychosomatic symptoms), (9) tension reduction, (10) social action, (11) ignoring the problem, (12) self-blame, (13) keeping the problem to oneself, (14) seeking spiritual support, (15) focusing on the positive, (16) seeking professional help, (17) seeking relaxing diversions, and (18) physical recreation. These 18 factors were found to cluster in to two groups: nine productive coping styles (1; 2; 3; 5; 6; 10; 15; 17; 18), and nine *non*- productive coping styles (4; 7; 8; 9; 11; 12; 13; 14; 16). These two clusters have been consistently associated with productive and non-productive coping respectively (see Frydenberg, 1999).

To date there are no established norms for the frequency of various coping behaviours, with the exception of modest data (n=174) collected on high school students' coping in regard to achievement, relationships and altruism (Frydenberg & Lewis, 1994). This sample showed that seeking of social support was reported at a high frequency and seeking spiritual support and seeking professional help were reported at a low frequency. Frydenberg and Lewis (1994) conclude that normal adolescents most often demonstrate a coping style that is general and not problem specific.

1.6 *Walker-McConnell Scale of Social Competence & School Adjustment*

The Walker-McConnell Scale of Social Competence & School Adjustment (Walker-McConnell, 1995) is a 53-item teacher rating scale that provides a teacher's perspective on an adolescent's social-emotional competence and functioning within a school environment. Items are rated on a 5-point scale from 'never' to 'frequently'. The items reliably assess areas of classroom behaviour, behavioural self-regulation and peer relationships that are considered important predictors of educational success. The scale furnishes a student's profile of functioning in 4 subscales: Self Control, Peer Relationships, School Adjustment and Empathy, in addition to a total score.

Section B: Client Profile

Thirty-six SWATRAD data sets were collected for evaluation. Data is from all SWATRAD clients and was collected during 2001 and 2002. Of the 36 clients who completed the program the following results were obtained:

Table 2.2: *Number of participants, percentage of females compared to males, and the mean, standard deviation and range of ages for each of the four SWATRAD programs*

SWATRAD group	n	% Female	Age Mean (SD)	Age Range
ACE	16	81.25	15.2 (0.8)	14-16
GIRLS GO WILD	5	100	14.8 (0.5)	14-15
WILD BUTTERFLY	3	100	14.0 (0.0)	14
FEAT *	12	75	14.8 (1.8)	12-18
TOTAL	36	83.3	14.9 (1.1)	12-18

**FEAT= Families Experiencing Adventure Together: Austin CAMHS, Maroondah CAMHS, EVAP and EDAS groups.*

Totals of 6 males and 30 females completed the SWATRAD programs, giving a 1:5 sex ratio. The mean age was approximately 15 years, although the ages covered the full range of teenage years (i.e, 12-18 y.o). The majority of clients consistently participated in the programs with only 5 adolescents and 2 families not fully completing the program to the end.

2 Primary Referral Problem

Referrers were asked to nominate the primary presenting problem. Clearly, the majority of referred adolescents presented with depression as the primary issue (nearly 1 in every 4). Relationship problems with peer and adults were also a frequently reported problem in this sample of participants (approximately 1 in every 5).

Table 2.3: *Primary problem of participants according to referrers.*

Primary referral problem	% of sample
Depression	23.8 %
Relationship Problems with peers/adults	19.0%
Eating Disorder	9.5%
Conduct/Behaviour	9.5%
Social withdrawal	9.5%
Identity/Self esteem	4.8%
School refusal/reluctance	4.8%
Anxiety	4.8%

Typically, the severity and longstanding nature of these problems qualified a number of these adolescents for psychiatric diagnoses of mood disorder, eating disorder, conduct disorder or adjustment disorder (per DSM-IV criteria; APA, 1994). Referrers were asked to identify any diagnosable disorders. However, many referrers may not have known the adolescent's diagnosis, or been qualified to make one themselves. Consequently, the overall frequency of reported diagnoses is probably conservatively low, and may not be reflective of the level of psychological disorders that may be present in the SWATRAD clients. Therefore the YSR was administered to gain a more reliable, valid and consistent idea of the participant's primary presenting problem that would also allow for inferential statistical analysis.

Table 2.4: *Frequency of Diagnosed Disorders in the SWATRAD sample*.

Primary referral problem	n
Mood Disorder	8
Eating Disorder	2
Conduct Disorders	1
Adjustment Disorder	2
Total	13

3 Range of Additional Presenting Problems

The percentage of the group with one or more presenting problems listed is shown in Table 2.5. Typically, adolescents presented with a wide range of concomitant difficulties. The broad range and number of presenting problems identified at the time of referral illustrates the severity of client needs. The frequency and percentages presented below suggest that the *average* client has 8 or more problems, in addition to their primary reason for referral.

More than two-third of the clients have poor family relationships and low self-esteem (76%), and more than half are experiencing suicidal ideation (56%) and feelings of depression (56%). Approximately half are experiencing problems with peers (52%), and school behaviours and school refusal (52% and 48%). Two in five have experienced emotional abuse (44%) and practice self-harming behaviours (40%). One-third has suffered anxiety (32%), sexual abuse (32%), and poor adult relationship (36%) or have parents who abuse substances (30%). Approximately one in four clients suffer from bullying, substance abuse, disordered eating, physical abuse or sexuality problems. One in five has learning difficulties, family or parental history of mental health problems, becomes aggressive or has housing difficulties or chronic instability. The extent of this co-morbidity is striking and highlights the multiple levels of need in this client group. This also confirms that the project reached the intended high-risk groups it aimed to intervene with.

Table 2.5: *Frequency of presenting problems amongst participants reported by referrers.*

Problem	%	Problem	%
Poor Family Relationships	76	Sexual Abuse	32
Low Self Esteem	76	Disordered Eating	28
Suicidal Ideation &/or Acts	56	Victim of Bullying	28
Depression	56	Physical Abuse	24
School reluctance	52	Substance Abuse	24
Poor Peer Relationships	52	Sexuality Problems	24
School Behavioural Problems	48	Parent with Mental Illness	22
Emotional Abuse	44	Family Mental Illness	20
Self-harming	40	Housing Difficulties	20
Poor Adult Relationships	36	Aggressive Behaviour	16
Anxiety	32	Learning Difficulties	16
Parental Substance Abuse	30	Chronic Instability	12

4 Recent Personal and Family Stressors

The following stressors are ranked in order of the percentage of clients who experienced these stressors within the 12 months prior to referral. On average, each client had more than 3 stressors within the previous 12 months, most often at home or at school, 64% were failing one or more subjects at school, 55% had conflict with parents. One in three was experimenting with drugs and alcohol, had conflict with teachers, or had concerns about their physical appearance. One in four had conflict with siblings or had moved home.

Table 2.6: *Percentage of personal stressors reported by participants.*

Personal stressors	%
Getting into drugs/alcohol	36
Feel too tall/short over or underweight, acne	32
Moving to a new home	27
Making new friends	20
Getting badly hurt or sick	14
Starting a job	12
Break up with romantic partner	8
Being in trouble with the police	8
Family stressors	
Hassling with parents	55
Conflict with siblings	27
Parents separation or divorce	16
Family member with an 'alcohol problem'	12
Parent or relative getting sick	12
Someone moves in with family	12
School stressors	
Failing one or more subjects	64
Getting into trouble with teachers	36
Failing a grade at school	16
Starting a new school	10
Total	317

5 Utilisation of Professional Supports

The number of clients who have been involved with other agencies is listed in Table 2.7.

Table 2.7: *Number of participant's who have had contact with other agencies at the time they were referred to SWATRAD, and the number who have ongoing contact with these agencies.*

Agency	Previous Involvement	Concurrent Involvement
DHS – Child Protection services	3	3
Juvenile Justice	0	0
Youth service	0	0
Adolescent Mental Health Service (CAMHS)	5	8
Private mental health service provider	2	1
Other youth service	1	1
Total	12 (63%)	13 (68%)

A majority of clients had previous involvement or were currently involved with other agencies. The greatest numbers of clients were involved with an adolescent mental health service (CAMHS), and this percentage had increased during the period of the client's participation in the SWATRAD programs due to referrals made by the SWATRAD team. Other client's had some involvement with the Child Protection department of the Department of Human Services, or with other types of youth services or with private mental health service providers.

Section C: Results: Psychometric Outcomes

The following section summarises the results derived from a statistical comparison of Pre-program, Post-program and Follow-up data from the aforementioned self-report questionnaires, which were completed by the SWATRAD participants. Changes in the participants' results are examined from Pre-program to Post-program and from Post-program to Follow-up (2-3 months later). Following the presentation of these outcomes, the SWATRAD data is compared to data from two clinical WAT programs: *BIP* (Brief Intervention Program, Austin Hospital, Child & Adolescent Mental Health Service; Crisp 2003) and *GO WEST* (Geelong Outdoor Wilderness Experience Support Team, Barwon Health Adolescent Mental Health Service; Crisp 2001). Comparison of the SWATRAD data to these two data-sets was done to compare the outcomes from the SWATRAD programs to that of similar programs, which used participants with higher levels of mental health symptoms and fewer protective factors than reported by the SWATRAD participants. Gender differences and differences between the types of programs will first be examined. Then each of the outcome measures will be presented, first discussing the SWATRAD outcomes, followed by comparison to the other two datasets.

6 Gender and Program Differences

Comparison of gender differences on the outcome measures and comparison of the peer-based and family-based programs on these measures are outlined in Tables 2.8 and 2.9 respectively.

Table 2.8: *Mean and Standard Deviations for males and females for the Youth Self Report, Life Attitudes Schedule, Coopersmith Self Esteem Inventory, Beck's Depression Inventory at Pre-program, Post-program and Follow-up.*

Scale	Pre-program		Post-program		Follow-up	
	Female	Male	Female	Male	Female	Male
YSR						
Internalising	59.8 (10.2)	48.4 (4.6)	54.6 (12.3)	56.0 (10.7)	53.1 (13.8)	46.8 (17.9)
Externalising	61.1 (11.6)	56.6 (10.4)	58.6 (11.6)	46.3 (17.9)	61.9 (9.1)	61.0 (4.5)
Total	59.9 (8.9)	56.4 (11.7)	54.8 (12.5)	55.8 (7.1)	57.7 (9.8)	51.5 (7.7)
Highest subscale	70.2 (8.6)	69.0 (12.0)	63.8 (11.1)	68.0 (5.7)	65.9 (9.2)	67.8 (3.1)
BDI						
Total	21.7 (13.8)	12.2 (11.9)	16.9 (11.9)	8.5 (8.1)	17.9 (13.7)	6.8 (6.0)
SEI						
General S-E	16.0 (6.4)	16.5 (12.2)	17.9 (6.0)	16.0 (0.0)	14.9 (6.9)	20.0 (0.0)
Social S-E	5.7 (1.9)	7.0 (0.0)	6.4 (1.9)	8.0 (0.0)	6.0 (2.1)	8.0 (0.0)
Home S-E	4.4 (3.0)	5.5 (0.7)	4.4 (2.7)	6.0 (0.0)	3.7 (2.9)	7.0 (0.0)
School S-E	3.5 (2.4)	3.0 (0.0)	3.8 (2.2)	-	5.0 (4.5)	7.0 (0.0)
Total S-E	58.4 (23.3)	64.0 (22.6)	64.6 (22.0)	58.4 (23.3)	51.2 (24.4)	84.0 (0.0)

As can be seen from Table 2.8, the BDI scores were lower for males than females at Pre-program, Post-program and Follow-up). Further, males exhibited a decrease in Externalising mental health symptoms (YSR) at post-program. Males also exhibited an increase in General and Total Self Esteem at follow-up that was not seen in females. However these differences were small, and did not reach statistical significance. Therefore, gender was not added as a variable to the following repeated measures analyses (the addition of unnecessary variables decreases the statistical power of the analyses, and given the general lack of significance in these results, this strategy would not be advisable).

Table 2.9: *Mean and Standard Deviations for YSR, LAS, CSI, BDI for Peer-based Program and Family Based Programs at Pre-program, Post-program and Follow-up.*

Scale	Pre-program		Post-program		Follow-up	
	Family	Peer	Family	Peer	Family	Peer
YSR						
Internalising	58.5 (12.9)	55.6 (6.4)	55.9 (12.8)	52.4 (9.9)	51.5 (13.9)	55.0 (0.0)
Externalising	61.5 (12.5)	57.9 (7.8)	58.6 (14.3)	53.1 (8.7)	62.0 (8.4)	57.0 (0.0)
Total	61.5 (9.6)	54.1 (5.7)	57.0 (12.6)	50.1 (8.5)	56.6 (9.8)	52.0 (0.0)
Highest subscale	70.9 (9.2)	68.0 (8.4)	65.3 (11.4)	62.0 (8.2)	66.4 (8.5)	65.0 (0.0)
BDI						
Total	20.3 (14.0)	21.1(13.8)	16.2 (12.7)	14.4 (9.1)	14.6 (13.1)	27.0 (14.1)
SEI	15.1 (6.4)	17.8 (6.7)	16.1 (5.9)	21.1 (4.6)	15.5 (6.9)	14.0 (8.5)
General S-E	5.6 (1.8)	6.3 (1.8)	6.1 (1.9)	7.1 (1.7)	6.3 (1.9)	5.5 (3.5)
Social S-E	4.1 (2.7)	5.0 (3.2)	3.7 (2.8)	5.9 (1.6)	3.6 (3.1)	5.5 (2.1)
Home S-E	2.6 (1.7)	4.9 (2.5)	2.9 (1.7)	5.1 (2.6)	5.0 (4.4)	7.0 (0.0)
School S-E	54.7 (20.1)	66.0(26.6)	57.6 (20.4)	77.3 (18.2)	59.1 (24.6)	60.0 (33.9)

It can be seen from Table 2.9 that the peer-based programs showed higher means in General Self Esteem, Social Self Esteem and Total Self Esteem at post-program that was not seen in the family-based programs. The peer-based programs also showed higher means in Self Esteem at School at follow-up that was not seen in the family-based programs. However, while the BDI scores for the peer and family-based programs showed a similar pattern, with lower means from pre-program to post-program, the peer-based programs showed higher means in depression levels at follow-up compared to the family-based programs. Again, these differences were small and did not reach statistical significance. Therefore, program type (family versus peer) was not added as a variable to the following repeated measures analyses.

7 Outcomes for SWATRAD and comparison to other WAT groups.

The following sections will present the outcome measures for the SWATRAD group over the Pre-program, Post-program and the Follow-up period. Each set of SWATRAD results will then be compared to the two other programs for comparison to a group of participants with more severe mental health problems.

6.1 *Mental health symptoms: Youth Self Report (YSR)*

SWATRAD only

The Youth Self-Report (YSR) provided information about the type of mental health symptoms that were being experienced by, and where most problematic for the client when they started the program. Figure 2.1 shows the average symptom profile for the SWATRAD group.

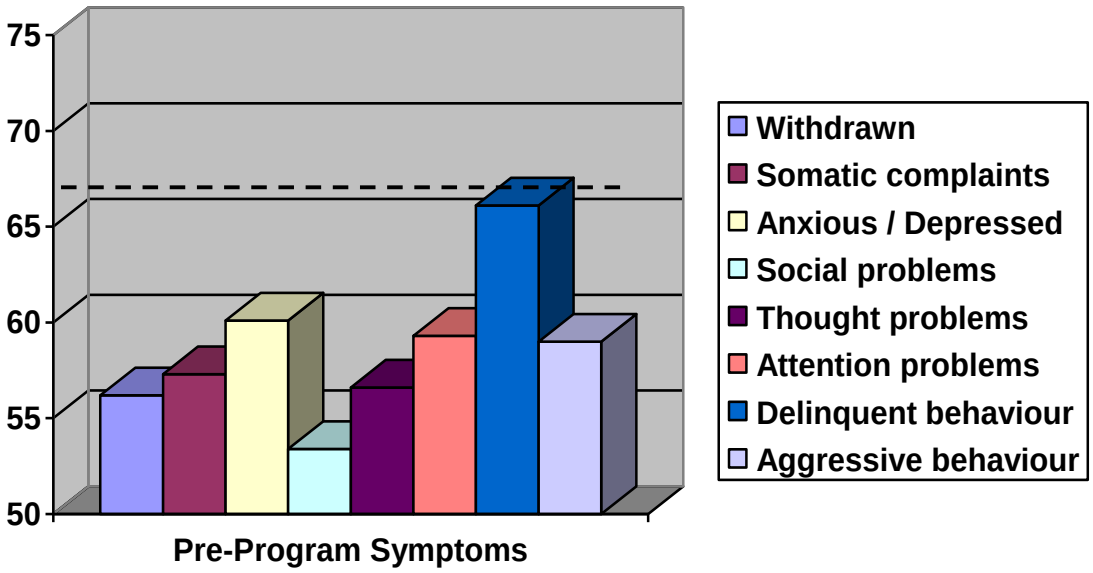


Figure 2.1: *Group profile of the average YSR symptoms at Pre-Program for SWATRAD clients (- - - clinical cut-off)*

The YSR mental health symptoms can be categorised into two subscales: *Internalising* and *Externalising* mental health symptom clusters. The YSR also has a *Total* score indicating the general level of mental health problems being experienced by the client. Further, the client's main problem is expressed as their 'highest YSR subscale score'. These scores were examined across Pre-program and Post-program and at Follow-up, to determine whether the intervention had an impact on their mental health symptoms, including their most problematic symptoms (i.e., highest clinical subscale score). Table 2.10 provides the scores on each of these scales at the three data collection points.

Table 2.10: *Means and Standard Deviations of the YSR clinical scales, the Internalising and Externalising subscale, the YSR Total and the highest subscale score for the SWATRAD clients at Pre-program, Post –program and Follow-up.*

	Pre-program		Post-program		Follow-up	
Scale	M	SD	M	SD	M	SD
Withdrawn	56.2	(7.1)	55.8	(8.3)	54.9	(7.1)
Somatic complaints	57.3	(7.3)	57.6	(6.3)	56.2	(6.0)
Anxious/depressed	60.1	(8.7)	57.3	(9.8)	57.4	(11.1)
Social problems	53.4	(5.6)	53.8	(6.5)	54.2	(6.2)
Thought problems	56.6	(6.7)	54.8	(9.4)	55.3	(7.8)
Attention problems	59.3	(8.1)	58.5	(8.7)	59.0	(7.2)
Delinquent behaviour	66.1	(11.3)	63.0	(11.5)	64.7	(7.7)
Aggressive behaviour	59.0	(8.7)	56.7*	(7.9)	58.6	(7.5)
Internalising Subscale	57.7	(11.4)	54.8	(11.9)	51.7	(13.5)
Externalising Subscale	60.4	(11.4)	56.9	(13.0)	61.7	(8.2)
Total Score	59.3	(9.2)	55.0*	(11.8)	56.3	(9.6)
Highest YSR clinical score	70.1	(9.0)	64.4	(10.5)	66.4	(8.2)

The *Internalising symptoms*, *Externalising* symptoms and the *Total* number of symptoms are examined, the Pre-program to Post-program all show a consistent improvement, however at three month Follow-up the Internalising scores continue to fall, while the Externalising symptoms and total number of symptoms return to post-program levels (Figure 2.2). This suggests the need for some form of 'booster' intervention in the follow-up phase for adolescents with externalising problems to maintain these changes. However, the intervention appears to be exhibiting lasting changes for Internalising symptoms.

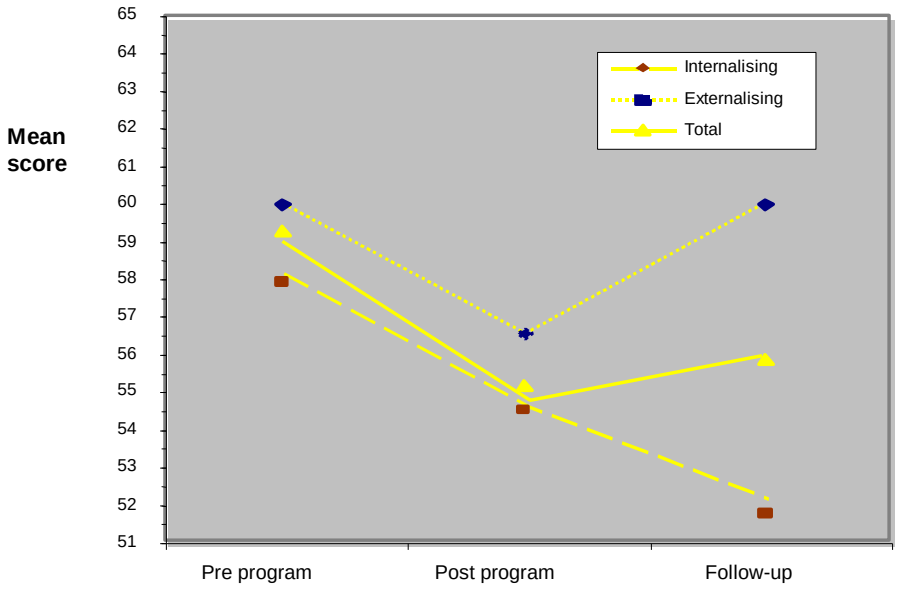


Figure 2.2: *Level of YSR Internalising, Externalising and total number of mental health symptoms reported by the SWATRAD clients at Pre-Program, Post-Program and Follow-Up.*

Finally, the YSR clinical sub-scales were compared at Pre-program, Post-program and Follow up. It can be seen from the figures in the next section that there were significant decreases in *Aggression Problems* (F (1, 28)= 6.79, p< .05, eta squared = .19) from Pre-program to Post-program. In addition, the total number of symptoms significantly decreased from Pre-program to Post-program (F (1, 28)= 5.45, p< .05, eta squared = .16). There was also a trend towards an improvement in the *Internalising* mental health symptoms from Post–program to Follow-up (F (1, 16)= 3.84, p= .068, eta squared =.19)[1]. Other YSR subscales showed a decrease in the number of mental health problems between Pre-program to Post-program however they were not statistically significant. While changes between the Pre-program and Post-program period are more directly attributable to the impact of the program, changes that are evident at Follow-up *may* represent learning acquired during the program, being implemented during the period following the program's completion. Figure 2.1 illustrates the decrease in mental health symptoms between Pre-program, Post-program and Follow-up.

Comparison of SWATRAD to GO WEST & BIP datasets.

In order to place the outcomes from the SWATRAD programs in some perspective, the SWATRAD results were compared to those from similar Wilderness Adventure Therapy programs (i.e. GOWEST and BIP) who had clients with different levels of mental health symptoms than those in the SWATRAD program. A comparison was made between the outcomes of SWATRAD, BIP and GO WEST programs at Pre-program, Post-program and Follow-up. Figure 2.3 and Figure 2.4 show the Pre-program mental health symptom profiles for the GO WEST and BIP clients respectively, to illustrate the characteristics of these groups.

1 Note the p value is just above .05, which indicates a trend towards significance, rather than a significant result. This means that rather than the arbitrary, but acceptable 5% probability that this results has occurred by chance, there is a 6.9% probability, in this case, which is deemed as worthy of discussion.

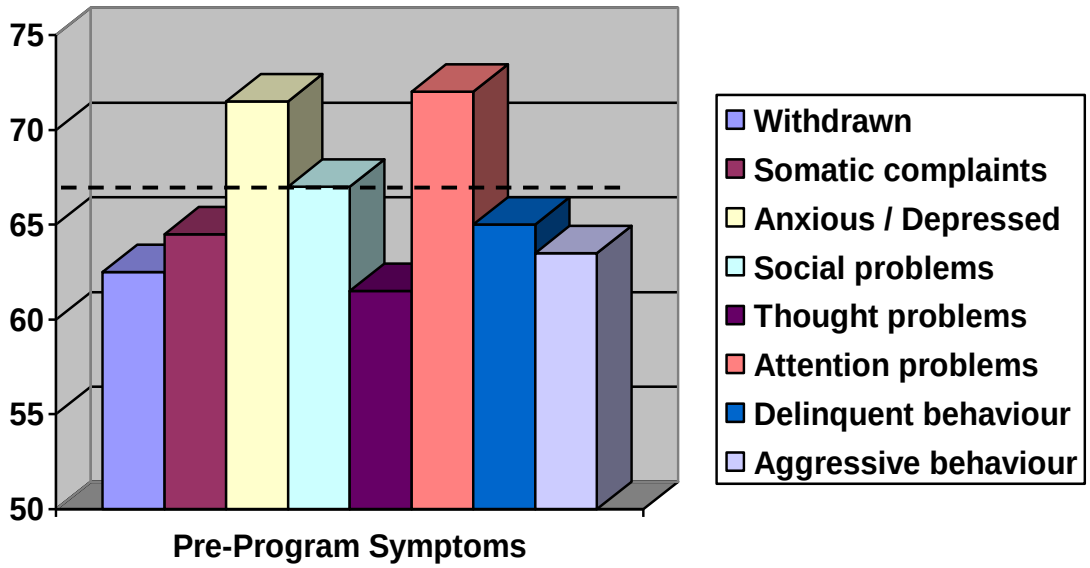


Figure 2.3: *Group profile of the average YSR symptoms at Pre-Program for GO WEST clients (- - - clinical cut-off)*

The average GO WEST client profile showed clinical levels of *Anxious / Depressed*, *Social Problems* and *Attentional Problems*, with similar levels of *Delinquent Behaviour* problems to the SWATRAD clients. GO WEST clients were out-patients, which is reflected in this profile of mental health symptoms.

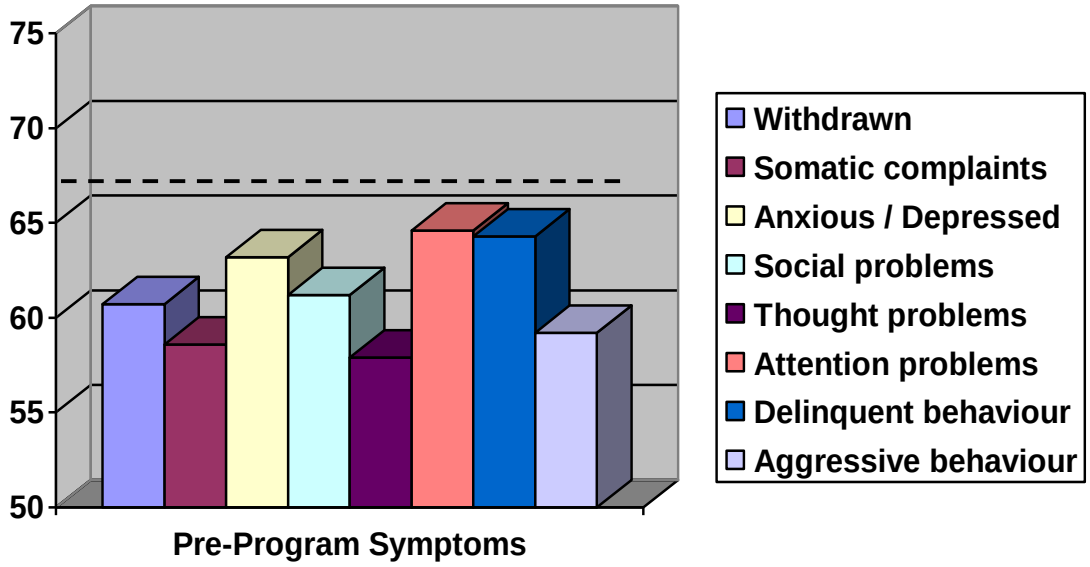


Figure 2.4: *Group profile of the average YSR symptoms at Pre-Program for BIP clients (- - - clinical cut-off).*

The average BIP client profile had high levels of *Anxious / Depressed*, *Attentional Problems* and slightly lower levels of *Delinquent Behaviour* compared to SWATRAD clients. BIP clients could be described as clinically 'treatment resistant' day-patients (who failed to respond to out-patient interventions), which is reflected in this profile pattern of mental health symptoms. The lower level of symptoms, relative to the GO WEST out-patient group, reflect the less acute but more entrenched nature of BIP clients' problems. That is, their problems are more often *structural* in nature. For instance, previous analyses revealed that the BIP clients showed a very high rate of social disadvantage and mental health risk factors than those from the GO WEST or SWATRAD client groups (Crisp, 2003).

Individual clinical subscales for the BIP,GO WEST and SWATRAD groups

The changes in anxious and depressed symptoms over Pre-program to Post-program showed a significant interaction with the type of program the client was in (F (2, 120)= 2.89 , p<.05, eta squared= .09). However from Post-program to Follow-up there was no interaction between programs. The decrease in *Anxious and Depressed* symptoms was uniform for the three programs (F (1, 67)= 6.73, p<.05, eta squared= .09).

To describe the interaction between groups from Pre-program to Post-program for the anxious and depressed symptoms, see Table 2.5. At Pre-program the GO WEST program reported more anxious/depressed symptoms than the BIP clients who, in turn, reported more anxiety and depressive symptoms than the SWATRAD clients. Over the period of the intervention the decrease in anxious depressed symptoms was greater in the GO WEST program than in the BIP program, which in turn was greater than the SWATRAD program. Figure 2.5 shows the BIP, SWATRAD, GO WEST anxiety and depression scores at Pre-program, Post-program and Follow-up.

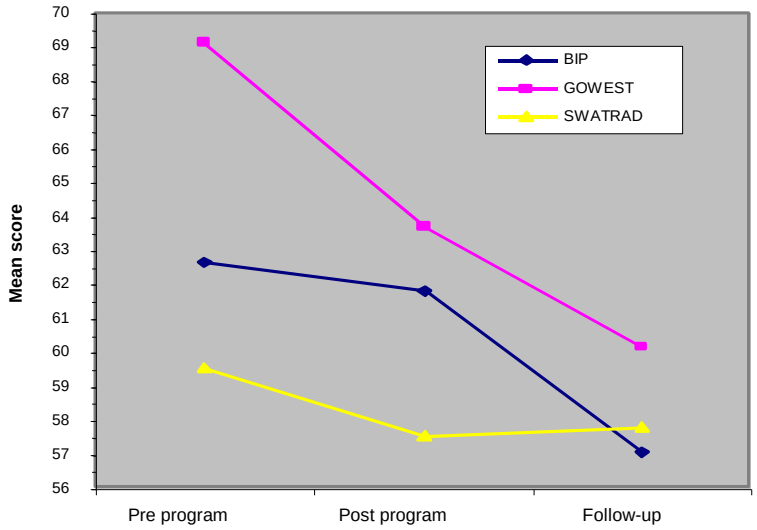


Figure 2.5: *YSR Anxious/Depressed symptoms reported by the SWATRAD, GO WEST, and BIP clients at Pre-Program, Post-Program and Follow-up.*

There was a significant interaction between the three groups over the Pre-program to the Post-program period (F (2, 120)= 2.93, p<.05, eta squared= .05), and Post-program and Follow-up period (F (2, 67)= 6.65 , p<.05, eta squared= .07) for the *Social Problems* subscale of the YSR. At Pre-program, the GO WEST clients reported significantly more social problems than the BIP clients who, in turn, reported more social problems than the SWATRAD clients. From Pre-program to Post-program the decrease in social problems was greater in the BIP and GO WEST program than in the SWATRAD program. From Post-program to Follow-up the greatest decrease in social problems was in the BIP program. This suggests that the BIP and GO WEST clients benefited from the social skills training aspect of the programs, however the lack of change in SWATRAD is likely to represent a 'basal effect' (or floor effect) that is, the SWATRAD clients' social problems scores were low at Pre-program, and they therefore had less scope to reduce over time. Figure 2.6 shows the BIP, SWATRAD, GO WEST's social problem scores at Pre-program, Post-program and Follow-up.

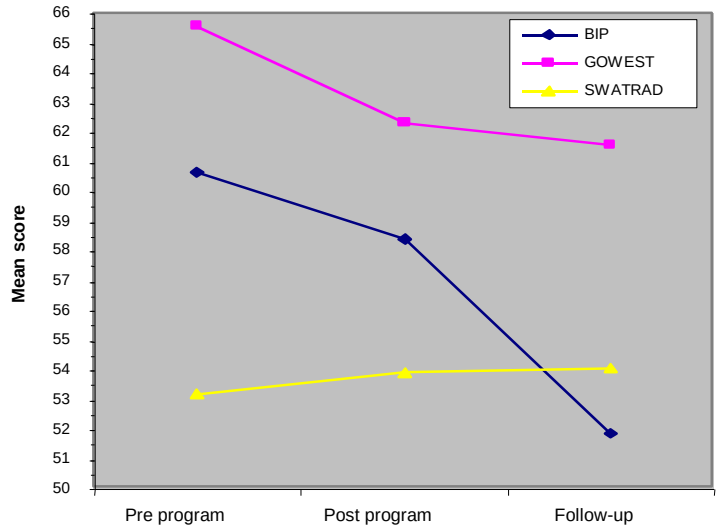


Figure 2.6: *YSR Social Problems symptoms reported by the SWATRAD, GO WEST, and BIP clients at Pre-Program, Post-Program and Follow-up.*

The *Attentional Problems* subscale of the YSR showed a significant and uniform decrease for all three programs from Pre-program to Post program (F (1 ,120)= 5.92, p<.05, eta squared= .05). However from Post-program to Follow-up there was a significant interaction between the three programs effect upon Attentional Problems (F (2,67)= 5.48, p<.05, eta squared= .06). Figure 2.7 shows the BIP, SWATRAD, GO WEST Attentional Problems scores at Pre-program, Post-program and at Follow-up. Overall, the three programs showed a decrease in Attentional Problems between Pre-program and Post-program, however from Post-program to Follow-up the BIP and GO WEST programs showed a greater decrease in Attentional Problems than did the SWATRAD group, which showed the smallest decrease. However, again this appears to reflect a 'basal effect' (or floor effect), as the SWATRAD groups Attentional scores were particularly low at Pre-program.

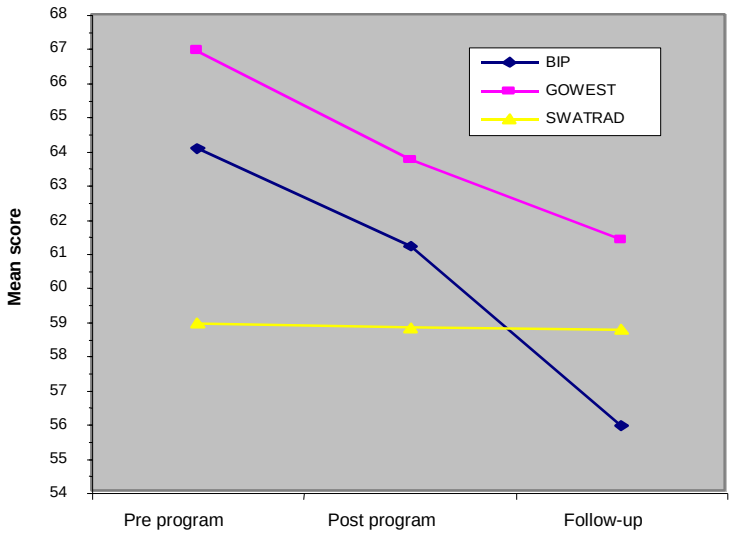


Figure 2.7: *YSR Attentional Problems reported by the SWATRAD, GO WEST, and BIP clients at Pre-Program, Post-Program and Follow-up.*

The *Delinquency* subscale of the YSR was not significantly different Pre-program to Post-program for any of the three program's (F (1, 120)= .70, p>.05, eta squared= .01). However there was a significant decrease in Delinquency scores for all programs between Post-program and Follow-up (F (1, 67)= 7.47, p<.05, eta squared= .10). The SWATRAD program had a non-significant decrease in Delinquency scores from Pre-program to Post-program, and a non-significant increase from Post-program to Follow-up. Both the GO WEST and BIP programs had failed to show a significant change from Pre-program to Post-program. However, from Post-program to Follow-up, the BIP program showed a significant decrease. Figure 2.8 shows the BIP, SWATRAD, GO WEST Delinquency subscale at Pre-program, Post-program and at Follow-up.

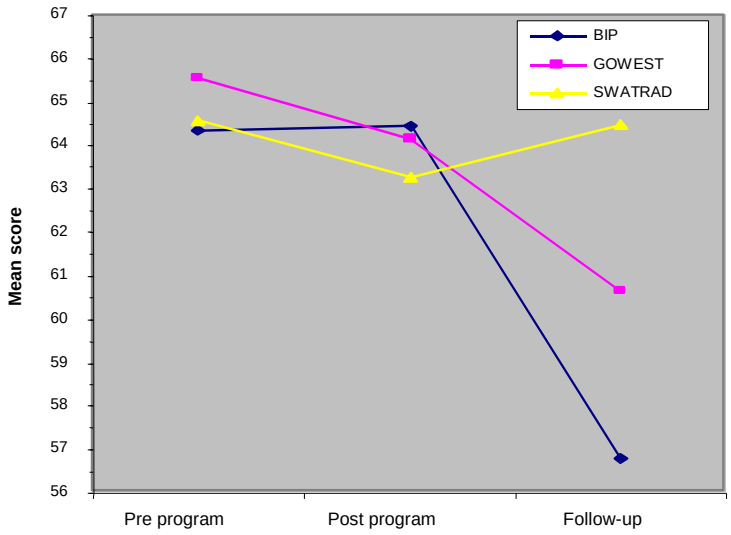


Figure 2.8: *YSR Delinquency reported by the SWATRAD, GO WEST, and BIP clients at Pre-Program, Post-Program and Follow-up.*

The *Internalising* subscale of the YSR significantly decreased for all three programs between Pre-program and Post program (F (1, 120)= 5.01, p<.05, eta squared= .04) and Post-program and Follow-up (F (1, 65)= 11.71 , p<.05, eta squared= .15). At Pre-program the GO WEST Internalising symptoms were higher than the BIP Internalising symptoms and in turn higher than the SWATRAD Internalising symptoms. Overall the Internalising symptoms of all three programs decreased significantly from Pre to Post-program and to Follow-up. However, there were no significant differences between the three programs' Internalising symptoms in the degree of reduction. Figure 2.9 shows the BIP, SWATRAD, GO WEST Internalising scores at Pre-program, Post-program and at Follow-up.

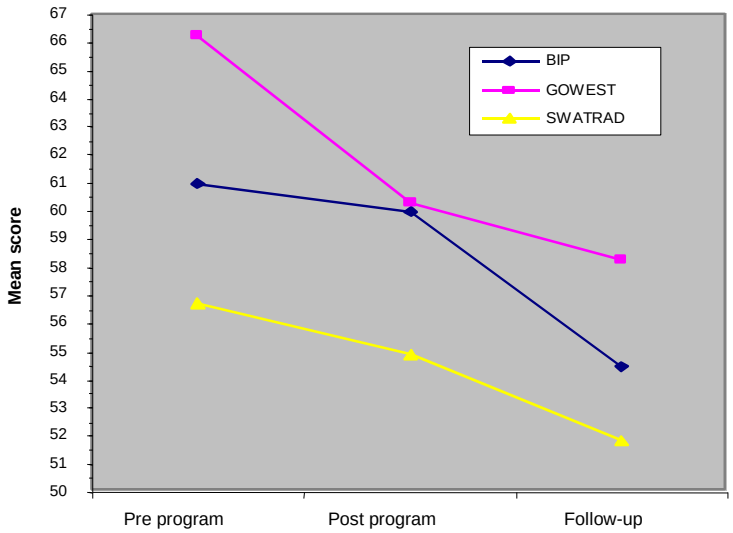


Figure 2.9: *YSR Internalising symptoms reported by the SWATRAD, GO WEST, and BIP clients at Pre-Program, Post-Program and Follow-up.*

The *Externalising* subscale of the YSR significantly decreased for all three programs between Pre-program and Post program (F (1, 120)= 2.35, p<.05, eta squared= .04). However there was no significant change from Post-program to Follow-up (F (1, 65)= 2.15, p>.05, eta squared= .02). At pre-program, the GO WEST Externalising symptoms were higher than the SWATRAD Externalising symptoms and in turn higher than the BIP Externalising symptoms. Overall the Internalising symptoms of all the programs decreased significantly from Pre to Post-program. However, between Post-program and Follow-up there were no significant changes in the Externalising symptoms of the three programs. Figure 2.10 shows the BIP, SWATRAD, GO WEST Externalising scores at Pre-program, Post-program and at Follow-up.

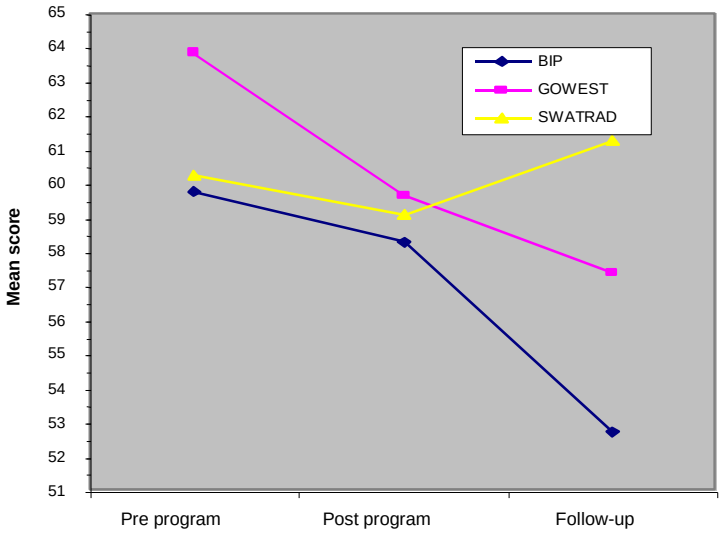


Figure 2.10: *YSR Externalising symptoms reported by the SWATRAD, GO WEST, and BIP clients at Pre-Program, Post-Program and Follow-up.*

The *Total* subscale of the YSR showed a significant decrease for all three programs Pre-program to Post program ($F(1, 120) = 13.81$, $p < .05$, eta squared = .10). However, from Post-program to Follow-up there was a significant difference between the three programs in the decrease in YSR

Total scores ($F(2, 66) = 3.88$, $p < .05$, eta squared = .08). At Pre-program the GO WEST participants reported higher YSR total mental health symptoms than the BIP program, which in turn was higher than the SWATRAD program. From Pre-program to Post-program there was a significant difference in YSR Total mental health symptoms for all three programs. From Post-program to Follow-up the SWATRAD program had a decrease in YSR Total mental health symptoms. The BIP program had an even greater decrease in YSR Total mental health symptoms, however GO WEST YSR *Total* scores increased. Figure 2.11 shows the BIP, SWATRAD, GO WEST total mental health scores at Pre-program, Post-program and at Follow-up.

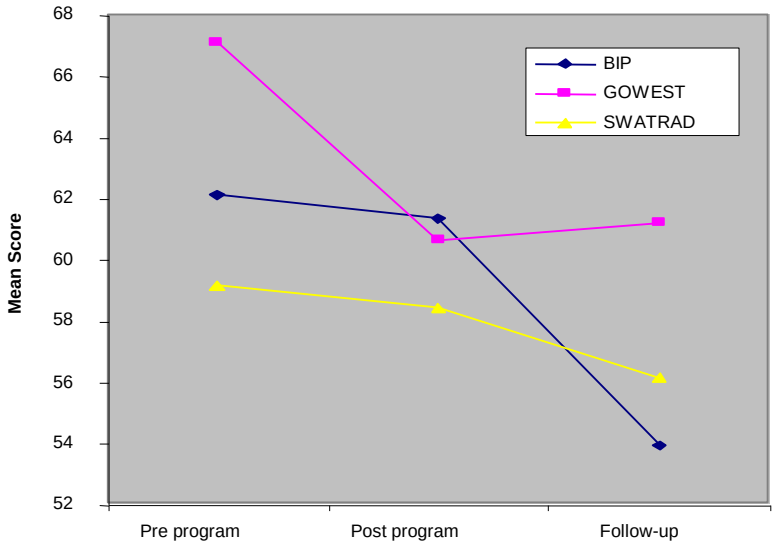


Figure 2.11: *YSR Total Mental Health Symptoms reported by the SWATRAD, GO WEST, and BIP clients at Pre-Program, Post-Program and Follow-up.*

Ultimately, it is critical to recognise that in a heterogeneous sample the types of symptoms that are most pronounced will vary between individuals. In order to take account of this, it becomes most meaningful to consider change in the symptom area that was most severe to each individual before treatment, that is, the highest elevated clinical subscale of the YSR Pre-program. From Pre-program to Post program, the highest subscale of the YSR decreased significantly for all three programs ($F(1, 119) = 50.80$, $p < .05$, eta squared = .30). Between Post-program and Follow-up there was a significant interaction between the three programs' highest YSR subscales ($F(2, 67) = 9.26$, $p < .05$, eta squared = .13). This means that the GO WEST clients had higher scores on the highest YSR subscale than the BIP program at Pre-program, which in turn was higher than the SWATRAD program. There was a significant decrease for all three program's scores on their highest YSR subscale from Pre-program to Post-program. From Post-program to Follow-up there was a significant difference in how the three programs scores on the highest YSR subscales changed. There was little change in the GO WEST or SWATRAD program's highest YSR scores between Post-program and Follow-up, however, the BIP program showed a significant decrease in highest YSR subscale scores at Follow-up. Figure 2.12 shows the BIP, SWATRAD, GO WEST scores on the highest YSR subscale at Pre-program, Post-program and at Follow-up.

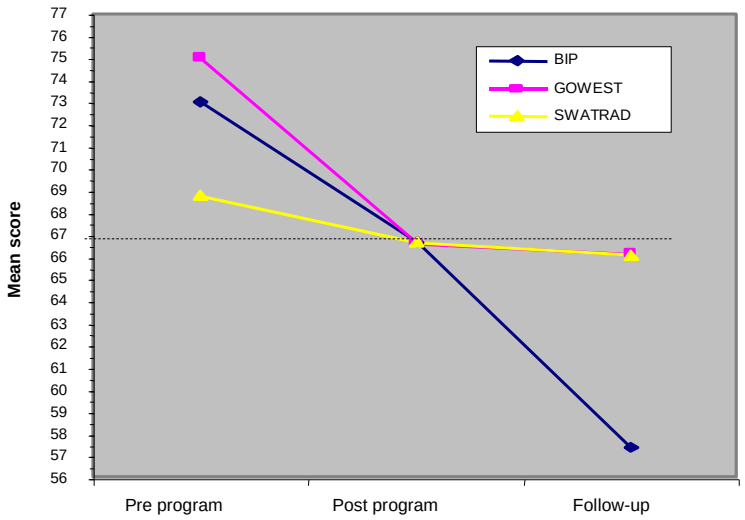


Figure 2.12: *Scores on the highest YSR subscale reported by the SWATRAD, GO WEST, and BIP clients at Pre-Program, Post-Program and Follow-up (- - - clinical cut-off).*

When these Post-program changes are considered in light of their clinical significance, for all programs, the highest elevated clinical subscales are well into the clinical range at Pre-program, and fall outside of the clinical range following treatment. Further, these mental health symptom areas remain outside the clinical range at Follow-up.

6.2 *Depression: Beck Depression Inventory (BDI)*

SWATRAD only

Depressive symptoms reported by participants are presented below. The data were examined in two ways. Depressive symptomatology is grouped into four classifications, according to the Total score of the BDI-II:

Asymptomatic	0 – 13
Mild	14 – 19
Moderate	20 – 28
Severe	29 – 63

At Pre-program the average BDI total score for the SWATRAD clients was M=20.6 (SD= 13.7), which is above the cut-off for the clinical range *moderate* depression. However Post-program the average level had reduced to M=15.8 (SD= 11.9), which is at the lower end of the *mild* depression range of scores. At follow-up the BDI total score was again M=15.8 (SD= 13.4), suggesting the positive effect on depressive symptoms was maintained after the program was completed.

The change in depression scores was examined over the Pre-program to Post-program period and it was found that the reduction in BDI total scores was significant ($F(1, 29)= 9.91$, $p< .005$, eta squared = .26). The effect size (eta squared) of .26, or 26% shows that is a strong effect. This result is particularly impressive as it occurs in a relatively small sample size.

There was no significant change from Post-program to Follow-up, indicating that the benefits from the program, on depressive symptoms, were maintained ($F(1, 19)= 0.06$, $p> .05$, eta squared = .003). Figure 6.12 (below) illustrates the changes in BDI-II total scores over the Pre, Post and Follow-up periods for the SWATRAD clients.

Comparison Of BIP, GO WEST and SWATRAD datasets

Again, in order to place the outcomes from the SWATRAD programs in some perspective, the BDI results were compared to the BIP and GO WEST programs datasets at Pre-program, Post-program and Follow-up.

The *BDI total* scores showed a significant interaction between the three programs' decrease in BDI Total scores from Pre-program to Post program ($F(2, 130) = 5.75$, $p < .005$, eta squared= .19). There were no significant differences between Post-program and Follow-up ($F(1, 78) = 2.54$, $p > .05$, eta squared= .03). At Pre-program the SWATRAD and GO WEST depression levels were significantly higher than the BIP scores. From Pre-program to Post-program there was a significant difference between the three programs' levels of depression. The BIP program did not change significantly, however the GO WEST and SWATRAD programs both had a significant decrease in depression scores. From Post-program to Follow-up there was no significant difference in the changes to depression scores for any of the programs. Figure 2.13 shows the BIP, SWATRAD, GO WEST Beck Depression Inventory scores at Pre-program, Post-program and at Follow-up.

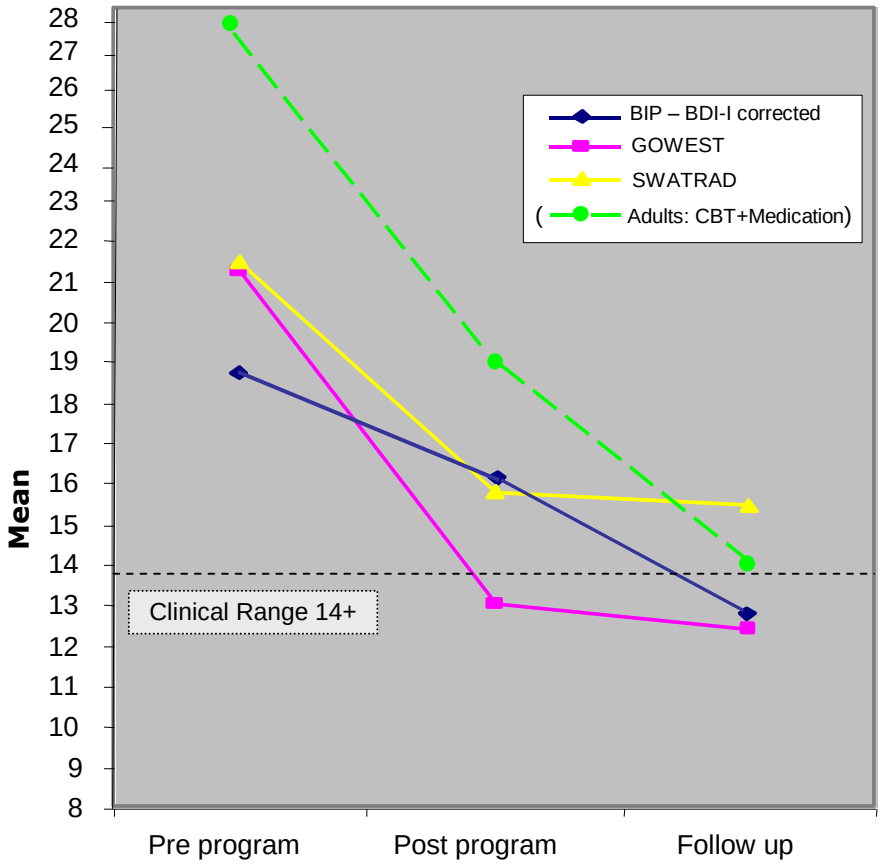


Figure 2.13: *Changes to depressive symptoms (as measured by BDI-II total scores) from Pre-program to Post-program and at Follow-up for the SWATRAD clients, compared to GO WEST clients, (BDI-I adjusted) BIP client scores, and average BDI scores for combined CBT and Anti-depressant medication treatment for adults diagnosed with MDD over comparable time frames.*

Importantly, these changes, as well as statistically significant also compare well with other treatment that used the BDI to measure depression outcomes. The effect sizes (magnitude of change) for SWATRAD alone was .26 (or 26%), or combined with GO WEST and BIP was .19 (or 19%). These effects sizes, while considered small, are impressive with such small sample

sizes. In fact, and compare well to other clinically-based psychotherapy outcome research. Indeed, when considering typical effect sizes of clinical effectiveness trials, effect sizes have been found to be very small, if not negative (Weisz & Jensen, 2001). Further, as a point of comparison, Figure 2.13 shows that studies with adult out-patients formally diagnosed with Major Depressive Disorder who are treated with anti-depressant medication combined with cognitive behavioural therapy (CBT) have shown a similar average effect size of .34 or (34%) (Friedman, Detweiler-Bedel, Leventhal, Horne, Keitner & Miller, 2004). Interestingly, the rate of reduction of depressive symptoms appears comparable between WAT and combined CBT and medication treatment in adults.

6.3 *Suicide & self-harm risk: Life Attitude Scale (LAS)*

SWATRAD only

The number of life-threatening attitudes did not show any significant changes between Pre-program and Post-program period, or at Follow-up. (F (1, 25)= 1.26, p>. 05, eta squared = .05; F (1, 19)= 1.20, p>. 05, eta squared = .06, respectively; see Figure 2.18). However, the mean level of attitudes was on the borderline of the 'at-risk' range at Follow-up although this was not significantly different to Pre-program levels.

Comparison of GO WEST and SWATRAD datasets

In order to investigate the impact of three similar programs on clients' life threatening attitudes the SWATRAD and GO WEST programs dataset were compared for Pre-program, Post-program and Follow-up. There is no LAS data from BIP clients. The LAS total scores for GO WEST clients showed no significant decrease in life threatening attitudes from Pre-program to Post program for the three program's datasets (F (1, 49)= .30, p>.05, eta squared= .01). However, there was a significant decrease from Post-program and Follow-up (F (1, 37)= 6.89, p<.05, eta squared=.16)

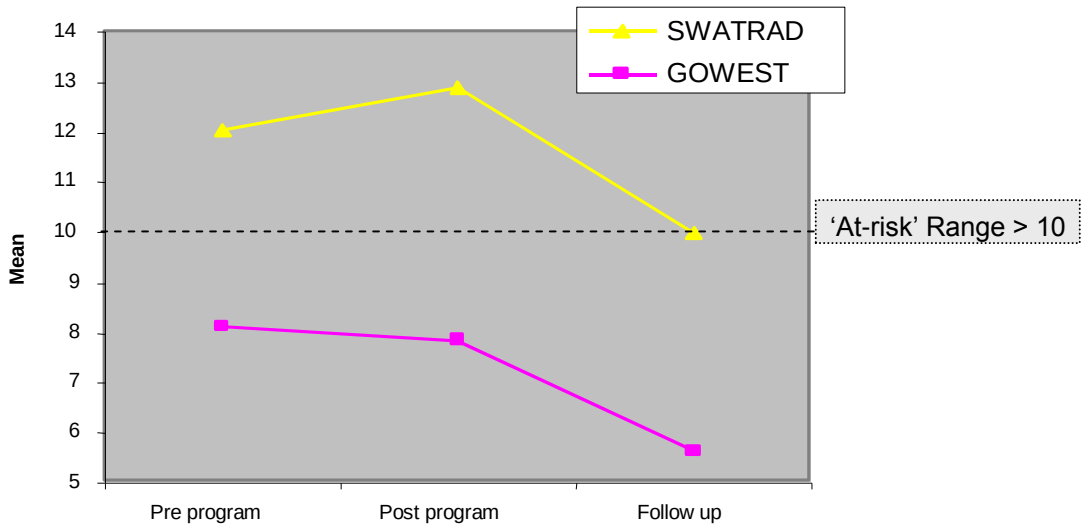


Figure 2.18: *Life Attitudes Schedule scores for the SWATRAD, and GO WEST clients at Pre-program, Post-program and at Follow-up (- - - 'at-risk' range cut-off)*

Interestingly, at Follow-up, the SWATRAD clients' average score was on the threshold of the 'at-risk' range for life-time suicidal ideation. For a predominantly community-based sample this appears to be an important outcome for longer-term risk, where there may not be any monitoring of the clients' risk by any professional. Indeed, The GO WEST client's range of risk appears to be decreased at all points in time, which may be reflective of the fact they were already engaged in a clinical service and had close monitoring of risk and regular case-management. These hypotheses would be interesting to investigate further.

6.4 *Self esteem: Self Esteem Inventory (SEI)*

SWATRAD Only

Statistically significant improvements were seen in two of the Self-Esteem Inventory subscale scores from Pre-program to Post-program for the SWATRAD clients. *General* self-esteem significantly increased from Pre-program to Post-program ($F(1, 21) = 7.70$, $p<.05$, eta squared =.27). *Social* self-esteem also increased significantly from pre-program to post-program ($F(1, 21) = 4.79$, $p<.05$, eta squared =.19).

A significant improvement was seen in the *School* self-esteem subscale between Post-program and Follow-up ($F(1, 11) = 5.63$, $p<.05$, eta squared =.34). It is interesting to note that the effect sizes (27%, 19% and 34% respectively) are impressive improvements given the small sample sizes. Figure 2.17 illustrates the changes in the Self Esteem Inventory subscale and *Total* scores from Pre-program to Post-program and Follow-up for the SWATRAD clients.

Comparison of GO WEST & SWATRAD datasets

Again, in order to place the self-esteem outcomes from the SWATRAD programs in some perspective, the SEI results were compared to the GO WEST program's dataset at Pre-program, Post-program and Follow-up. There is no SEI data from BIP clients.

The SEI *General* self-esteem subscale showed a significant increase for both programs between Pre-program and Post program ($F(1, 51) = 15.05$, $p<.05$, eta squared= .23), as did the *Social* self-esteem subscale ($F(1, 51) = 13.63$, $p<.005$, eta squared= .21) for the both programs. There was a significant increase in *Total* self-esteem scores for both programs from Pre-program to Post-program ($F(1, 51) = 14.69$, $p< .05$, eta squared = .22). There was a significant interaction between the programs change in the *School* self-esteem subscale between Post-program and Follow-up for ($F(1, 28) = 5.78$, $p<.05$, eta squared= .23).

Both programs produced an increase in General self-esteem and Social self-esteem from Pre to Post-program. Only the School self-esteem showed a significant increase from Post-program to Follow-up for the SWATRAD program. Figures 2.14, 2.15 and 2.16 shows the SWATRAD and GO WEST Self Esteem Inventory for the *General*, *Social* and *School* subscales at Pre-program, Post-program and at Follow-up.

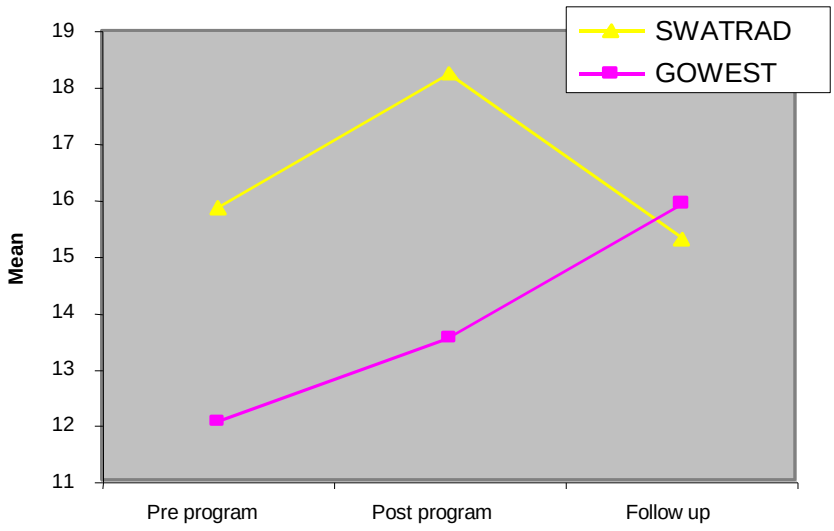


Figure 2.14: *Self Esteem Inventory 'General' subscale scores reported by the SWATRAD, and GO WEST clients at Pre-Program, Post-Program and Follow-up.*

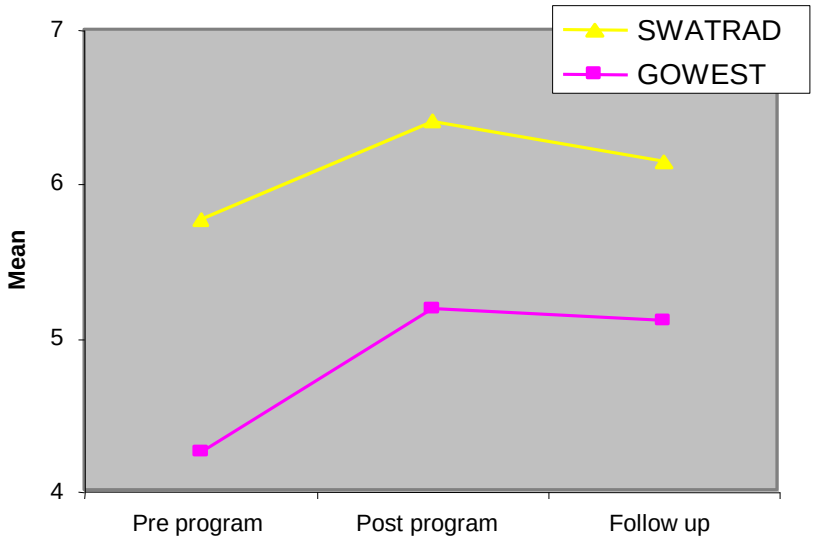


Figure 2.15: *Self Esteem Inventory 'Social' subscale scores reported by the SWATRAD, and GO WEST, clients at Pre-Program, Post-Program and Follow-up.*

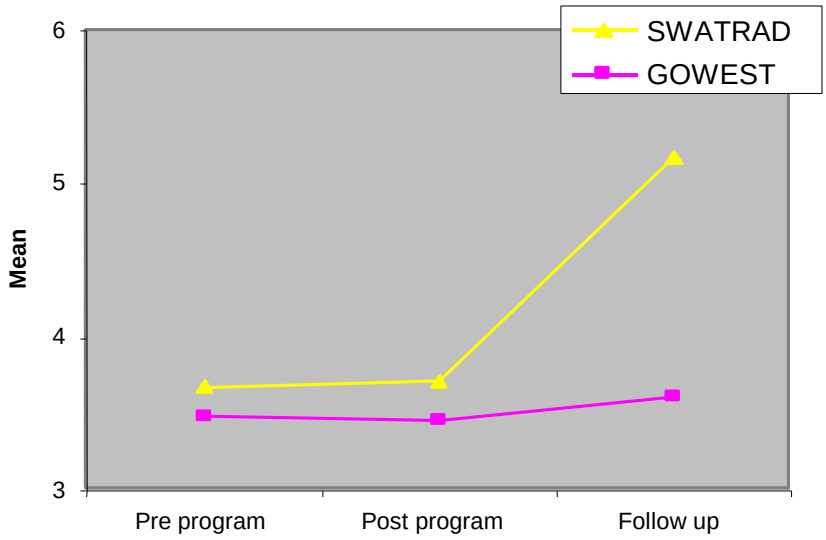


Figure 2.16: *Self Esteem Inventory 'School' subscale scores reported by the SWATRAD, and GO WEST, clients at Pre-Program, Post-Program and Follow-up.*

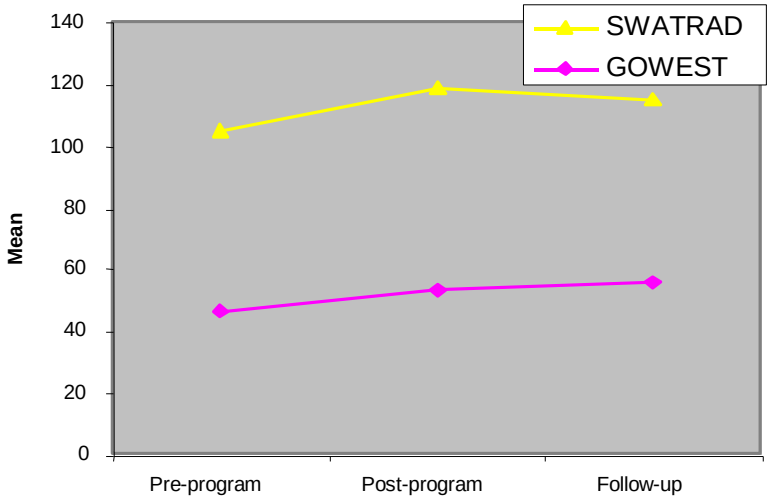


Figure 2.17: *Self Esteem Inventory 'Total' scores reported by the SWATRAD, and GO WEST, clients at Pre-Program, Post-Program and Follow-up.*

6.5 Coping styles

SWATRAD only

The level of Productive coping did not show any significant changes between Pre-program and Post-program period, or at Follow-up. (F (1, 26)= 1.43, p>. 05, eta squared = .05; F (1, 17)= 0.00, p>. 05, eta squared = .00, respectively; See Figure 2.19).

The level of Non-Productive coping did not show any significant changes between Pre-program and Post-program period, or at Follow-up. (F (1, 26)= 1.22, p>. 05, eta squared = .04; F (1, 17)= 0.03, p>. 05, eta squared = .00, respectively; See Figure 2.20).

Comparison of GO WEST and SWATRAD datasets

Again, in order to place the coping outcomes from the SWATRAD programs in some perspective, the ACS results were compared to the GO WEST program's dataset at Pre-program, Post-program and Follow-up. There is no ACS data from BIP clients.

The ACS *Productive* coping scores showed a non-significant increase from Pre-program to Post program for the two program's datasets (F (1, 56)= 2.04 , p>.05, eta squared= .003), or from Post-program to Follow-up (F (1 ,34)= 0.01, p>.05, eta squared=.00)

The ACS *Non-Productive* coping scores showed a non-significant increase from Pre-program to Post program for the two program's datasets (F (1, 56)= 1.30 , p>.05, eta squared= .02), or from Post-program and Follow-up (F (1, 34)= 2.20, p>.05, eta squared=.06)

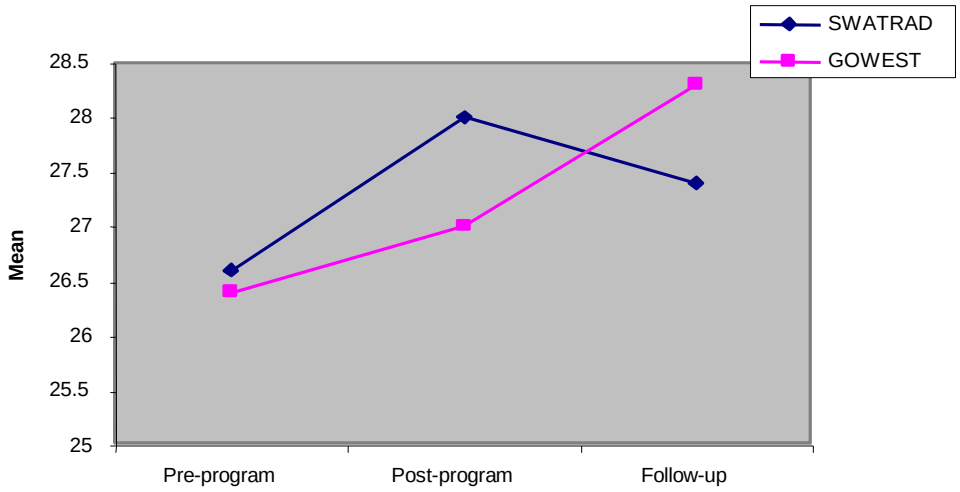


Figure 2.19: *Adolescent Coping Scales- Productive coping scores for the SWATRAD, and GOWEST clients at Pre-program, Post-program and at Follow-up.*

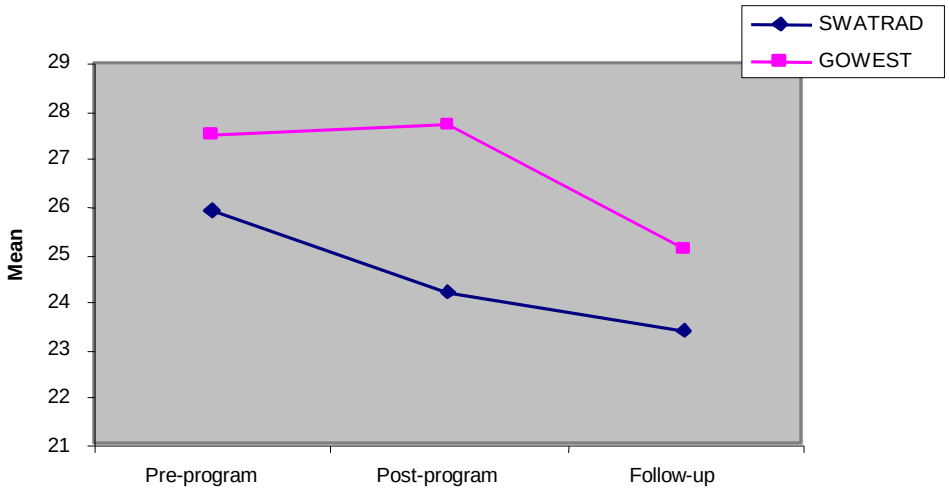


Figure 2.20: *Adolescent Coping Scales- Non-productive coping scores for the SWATRAD, and GOWEST clients at Pre-program, Post-program and at Follow-up.*

13.6 *School functioning*

SWATRAD-ACE

For the school-based ACE programs, the impact of the intervention on social competence and school functioning was investigated using the Walker McConnell Scale of Social Competence and School Adjustment. The data revealed some statistical trends, and given the small sample size these results are of interest. The *Total* score showed a trend towards a statistically significant increase from Pre-intervention to Post-program (F (1, 10)= 4.05, p= .07, eta squared = .28[2]) – see Figure 2.22. The effect size also shows that this increase in school functioning is also of a reasonable magnitude. Furthermore there is also a trend toward a significant increase in the *School Adjustment* subscale in the Follow-up phase (F (1, 5)= 3.8, eta squared = .43) – see Figure 2.23.

2 Note this means we are 93% sure of the finding rather than 95%, the usual cut-off probability score used

Table 2.11 *The Means and Standard Deviations of the Pre, Post and Follow-up measures of the Walker McConnell Subscale Scaled Score and Total Scaled Score.*

Scale	Pre-program	Post-program	Follow-up
Self control	9.3 (1.4)	9.6 (1.8)	10.0 (1.1)
Peer relations	9.0 (2.9)	9.7 (2.6)	9.4 (1.2)
School adjustment	7.7 (1.8)	8.3 (1.7)	9.3 (1.5)
Empathy	10.0 (2.1)	10.6 (1.9)	10.0 (0.6)
Total	94.3 (10.0)	98.2 (9.4)	98.7 (5.9)

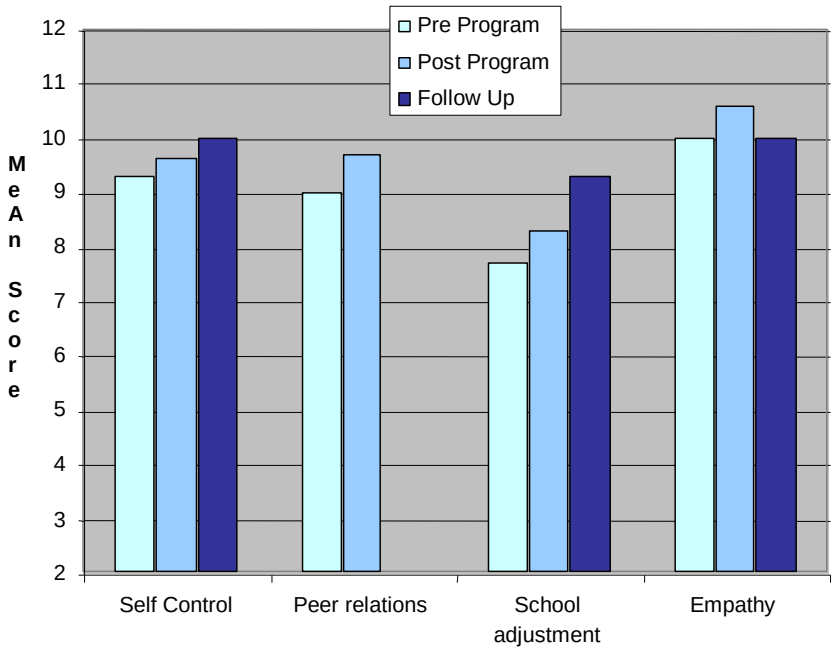


Figure 2.21: *Walker McConnell School Adjustment subscale scores for Pre-program, Post-program and at Follow-up for the SWATRAD group.*

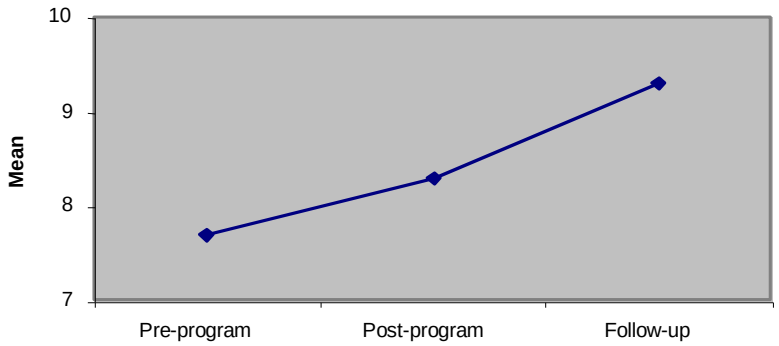


Figure 2.22: *Walker McConnell 'Total' scores for Pre-program, Post-program and at Follow-up for the SWATRAD group.*

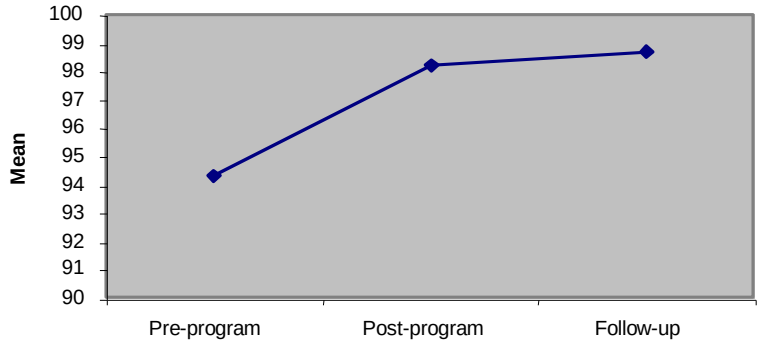


Figure 2.23: *Walker McConnell 'School Adjustment' scores for Pre-program, Post-program and at Follow-up for the SWATRAD group.*

Section D: Results: Qualitative Outcomes

8 Family Functioning

8.1 *Comparison of SWATRAD and GO WEST data*

For SWATRAD-ACE and GO WEST programs both adolescents and parents completed the *CORE* Family questionnaire. The CORE Family Questionnaire is a brief 5-item rating scale on key aspects of a family's functioning. This scale is not standardized and therefore of unknown reliability and validity. These ratings are shown for adolescents in Figures 2.24 and 2.25. Note that low scores indicate better functioning, and conversely high scores indicate poorer functioning. The coloured bars represent the changes Pre-program, Post-program and Follow-up in each of the areas of functioning. Figures 2.24 to 2.27 represent results from the CORE Family Questionnaire for different groups of clients.

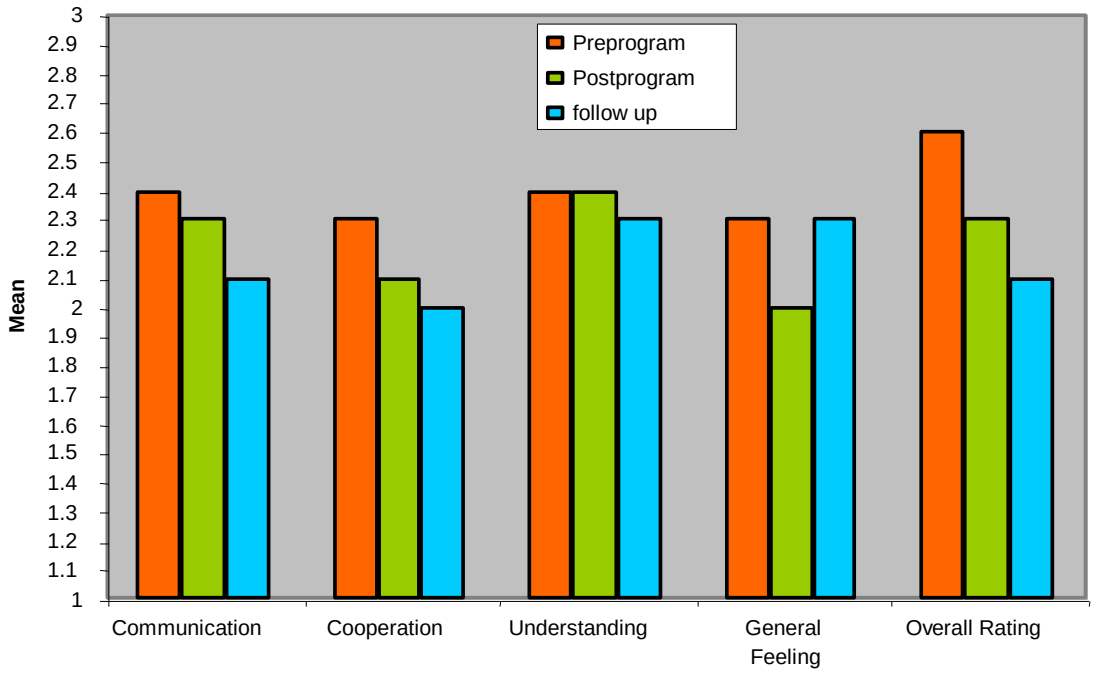


Figure 2.24*: Pre-program, Post- program and Follow-up changes in Communication, Co-operation, Understanding and General Feeling on the CORE Family Questionnaire for the SWATRAD-ACE adolescent clients.*

Figure 2.24 shows that overall, the adolescents from the SWATRAD-ACE group reported improved levels of communication, cooperation, understanding, and overall feeling from Pre-program to Post-program to Follow-up.

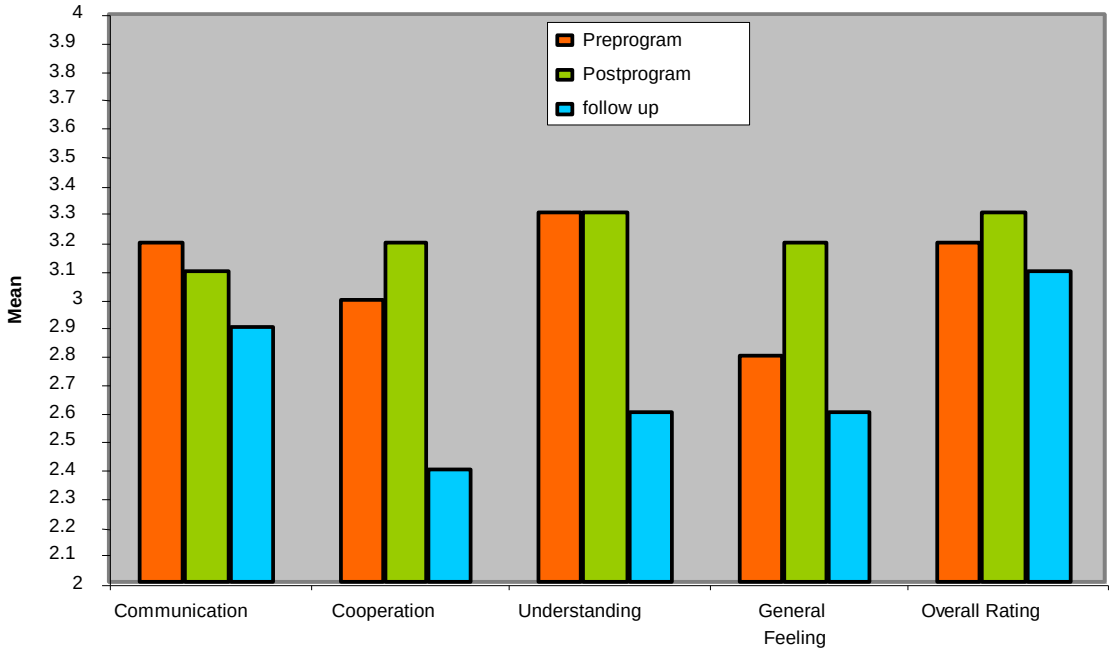


Figure 2.25*: Pre-program to Post-program and Follow-up changes in Communication, Co-operation, Understanding and General Feeling on the CORE Family Questionnaire for the GO WEST adolescent clients.*

Figure 2.25 shows that adolescents in the GO WEST group reported improved family communication over time and improved understanding at Follow-up. Ratings of Cooperation and General feeling were poorer at Post-program, however showed a substantial improvement at Follow-up. The Overall rating of family functioning was also slightly worse at Post-program, however improved at Follow-up.

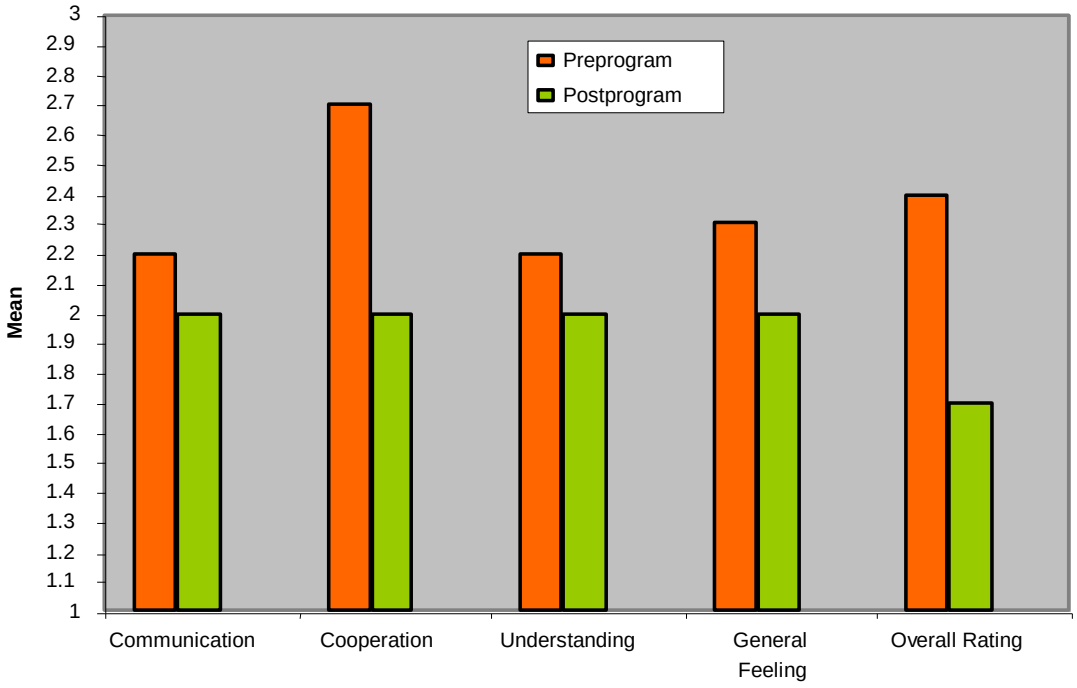


Figure 2.26: *Pre-program to Post-program changes in Communication, Cooperation, Understanding and General Feeling for the parents' ratings on the CORE Questionnaire for the SWATRAD-ACE program.*

Figure 2.26 shows that the parents of those participants in the ACE program reported improved levels in all aspects of family functioning at Post-program. Data was not collected at Follow-up for parents.

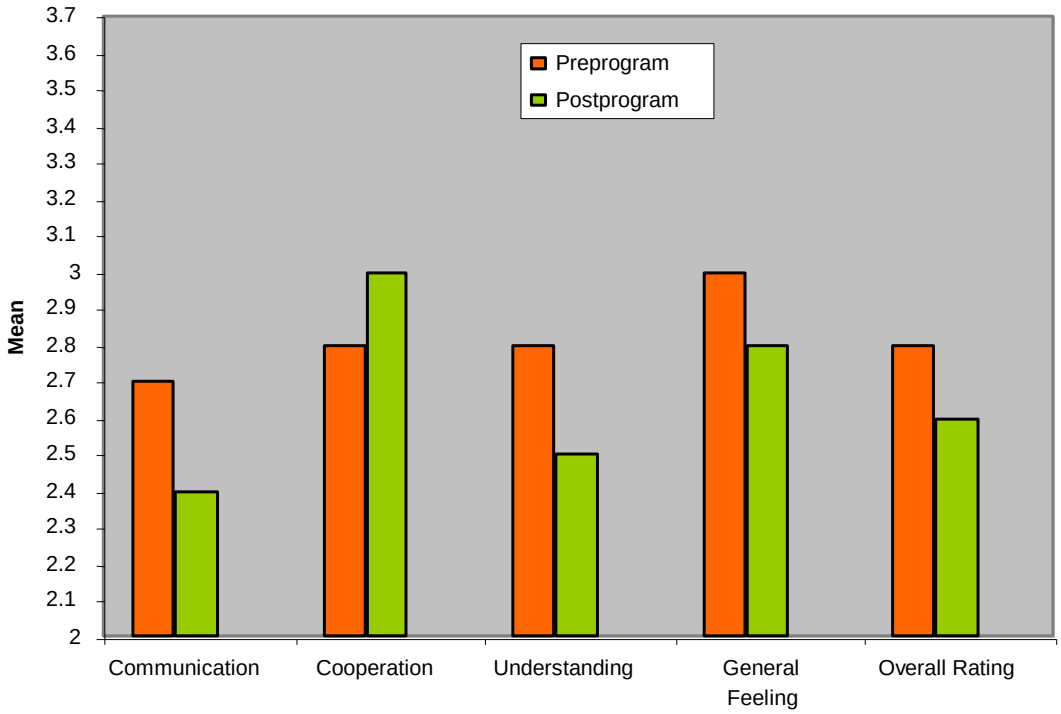


Figure 2.27: *Pre-program and Post-program changes in Communication, Cooperation, Understanding and General Feeling for parents' ratings on the CORE Questionnaire for the GO WEST program.*

Figure 2.27 shows that, with the exception of Co-operation, the parent's of GO WEST participants reported improved levels in all aspects of family functioning at Post-program. Again, data was not collected for parents at Follow-up.

9 Resilience

The following graphs (Figure 2.28 to 3.32) represent the information gathered by a questionnaire designed to assess resilience in several client groups. The findings from each graph will be discussed following each figure. Many of the changes seen in the following graphs are minor and will not be interpreted, however major changes of interest will be discussed.

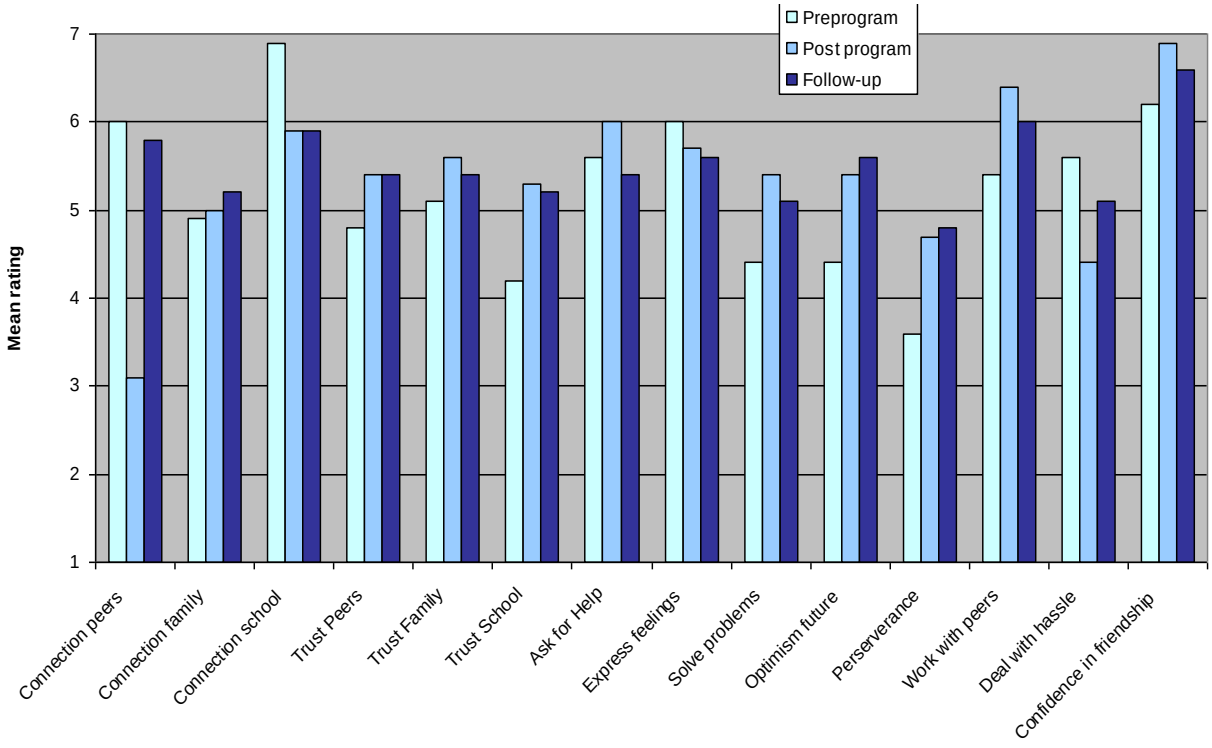


Figure 2.28: *Results for the adolescent version of the Resilience questionnaire administered to SWATRAD-ACE clients in all four schools.*

In Figure 2.28 the changes of interest are:

1. At pre-program, adolescents reported high levels of '*connection to school'* but low levels of '*trust in school'*. However, at Post-program and Follow-up, '*connection to school'* and '*trust in school'* were similar to scores on other measures.

2. At Post-program scores on '*connection to peers'* dramatically decreased, however these ratings returned to Pre-program levels, at Follow-up. However, '*trust in peers'* ratings were similar to scores on other measures throughout the program.

3. Ratings of '*optimism about the future'* and '*perseverance'* increased at Post-program and improved further at Follow-up.

4. There was an increase in ratings of '*ability to solve problems', 'work with peers'* and '*confidence in friendships'* at Post-program. At Follow-up these benefits were maintained.

5. Adolescents showed an improvement in '*asking for help'* at Post-program, however, these scores returned to Pre-program levels at Follow-up, suggesting that this effect is not maintained long-term.

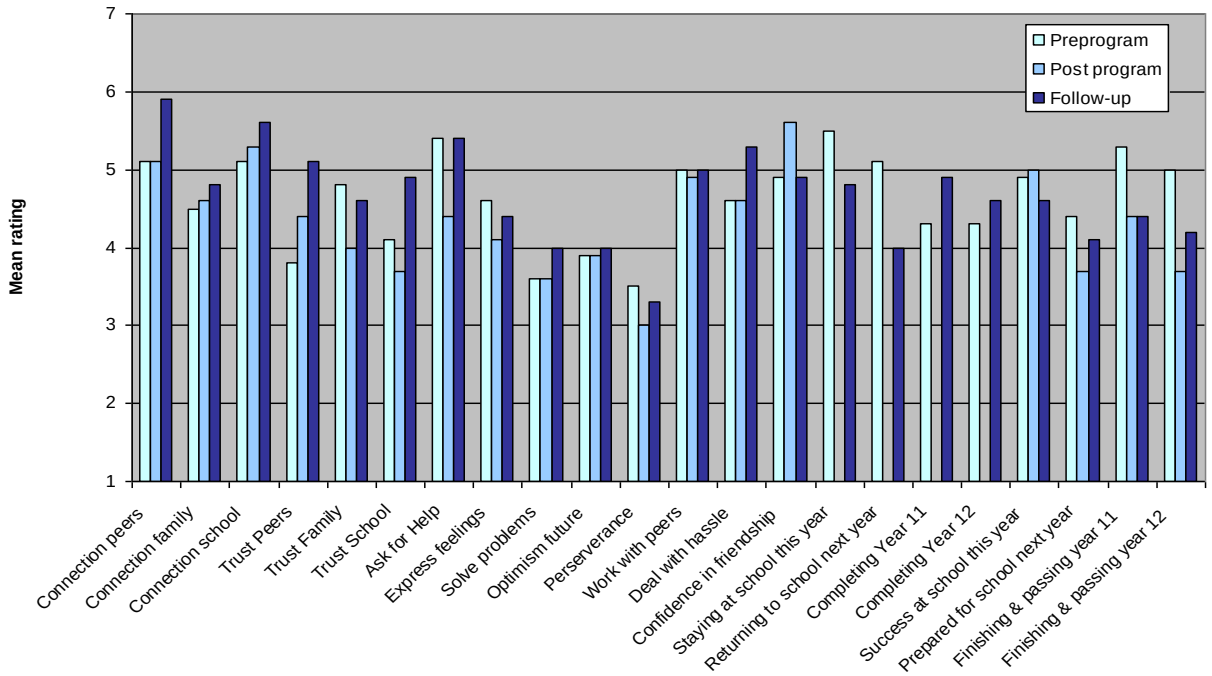


Figure 2.29: *Results for the adolescent version of the Resilience questionnaire administered to the second 'single-school' ACE program clients.*

The following patterns are evident in Figure 2.29:

1. Ratings of *'connection to peers', 'connection* to *family'* and *'connection to school'*, and '*trust in peers'* all increased at Post-program and again at Follow-up.

2. Ratings of *'trust in family'* and *'trust in school'* decreased at Post-program, but increased beyond the Pre-program levels at Follow-up. This may suggest a delayed benefit from the program.

3. Ratings of '*ability to solve problems'*, '*deal with hassles'* and *'perseverance'* showed no change at Post-program, however, they increased at Follow-up. Again, this may suggest a delayed benefit from treatment.

4. Ratings of *'confidence in friendship'* showed an increase at Post-program, however reduced to Pre-program levels at Follow-up.

5. Adolescents reported being less likely to *'ask for help'* or '*express feelings'* at Post-program, however, at Follow-up these levels increased, to Pre-program levels. This finding is unclear, and appears contradictory to the majority of clearly beneficial outcomes reported above. However, this result suggests a number of possible explanations. One of the simplest explanations is that at the conclusion of the program, clients felt more independent and were therefore less likely to ask for help. Additionally, clients became more aware of the intensity of apparently 'negative' emotions through the program and were therefore more reluctant to express them, or perhaps were more discriminating about who they expressed them to. The results at Follow-up may reflect that these two behaviours had become 'normalised' and reluctance towards both reduced. Alternatively, this result may suggest that these behaviours were adversely affected by the program and might need to be better addressed through future programs.

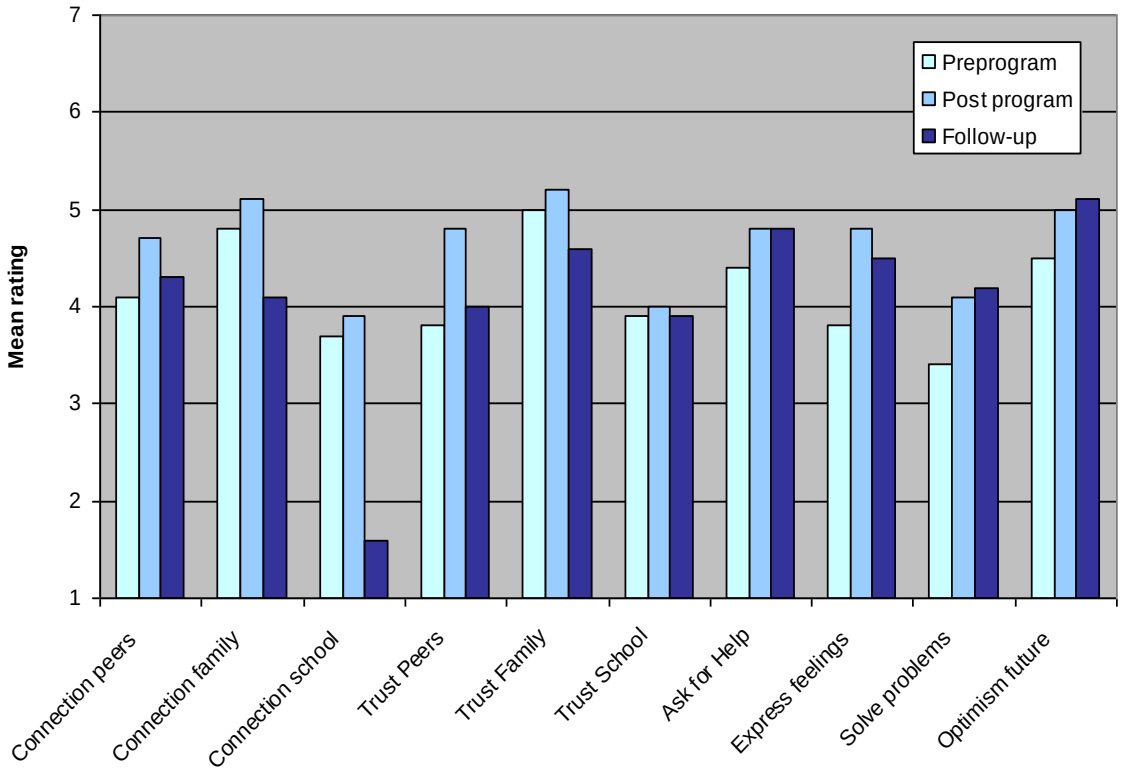


Figure 2.30: *Results for the adolescent version of the Resilience questionnaire administered to GOWEST clients.*

For the GO-WEST clients the following changes are of note:

1. At Post-program adolescents in the GOWEST group reported a greater '*connection to school', 'peers'* and *'family members'.* They also reported greater '*trust with school'*, '*peers'* and '*family members'*. Furthermore, they reported an improvement in '*asking for help'*, '*solving problems'*, and '*optimism about the future'* at Post-program.

2. At Follow-up 'a*sking for help'*, '*solving problems'*, and '*optimism about the future'* remained high. At Follow-up, the adolescents reported fewer feelings of '*trust'* and '*connection with peers',* however, these scores were higher than at Pre-program. The adolescents reported fewer feelings of *'trust'* and '*connection with family members'* at Follow-up compared to both Pre-program and Post-program. "*Trust with school'* showed little change, however '*connection to school'* showed a dramatic decrease.

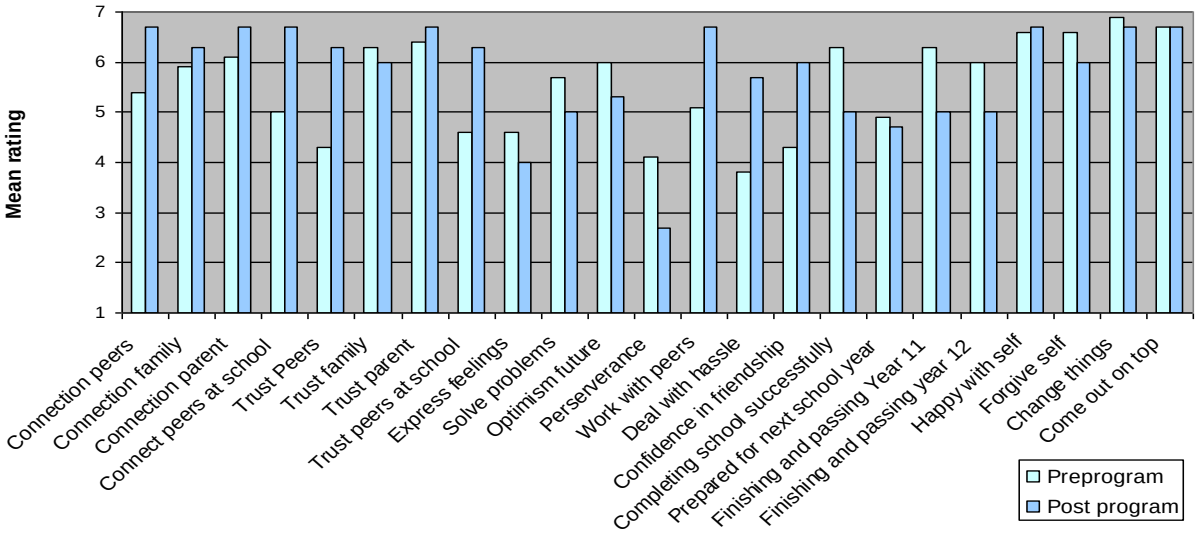


Figure 2.31: *Results for the Parent version of the Resilience questionnaire administered to Parents of the second 'single school' ACE group.*

Parents of the ACE clients reported that:

1. On average the parents of the second 'single school' ACE clients reported that their adolescent children showed an improvement in '*connection with peers', 'family', 'parents',* and *'school'* and an improved in '*trust with peers', 'parents',* and *'school',* at Post-program. They also reported that '*working with peers', 'confidence in friendships'* and *'ability to deal with hassles'* improved at Post-program.

2. Parents of clients of the ACE program reported that scores on '*expressing feelings'*, '*solving problems'*, '*optimism about the future'*, '*perseverance'*, '*completing school successfully'*, '*preparation for next year'*, and '*finishing and passing Yr 11 and Yr 12'* all showed a decrease. This may indicate that the parents were, for the first time, aware of the impact that their adolescent children's difficulties, may be having upon their schooling. Unfortunately no Follow-up data was able to be collected to determine whether the parents saw any beneficial changes some time after the completion of the program.

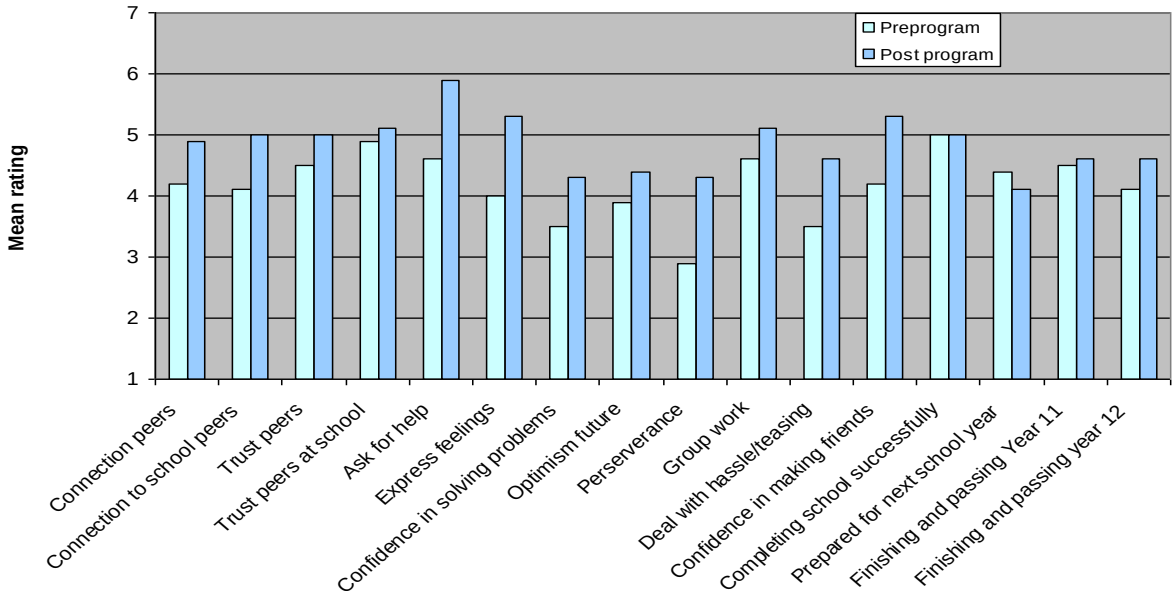


Figure 2.32: *Results for the Teacher version of the Resilience questionnaire administered to Teachers of the second 'single school' ACE group.*

For the ACE group:

1. Teachers reported that students who completed the program had better connections and trust with peers, and were more confident in making friends. Students were reported to be more likely to ask for help, express their feelings, and were more confident in solving their problems. They were more optimistic about the future, showed more perseverance, were better in groups and at dealing with hassles.

2. There were few changes in the area of students being more likely to '*complete school successfully'*, be '*prepared for school next year'*, and '*finishing and passing year 11 and 12'*. This however might reflect tentativeness on the teacher's behalf to predict the student's likelihood of success. The outcomes in fact were that all students did complete Year 11 and undertook Year 12 with at least 7 of the 8 successfully passing Year 12 (1 student was not able to be followed up at the end of Year 12).

10 Process Evaluation

This section reports the results of a process evaluation of therapeutic factors of the various peer-group program components using the *Wilderness Adventure Check-in Survey* (Crisp, 2001) to gain feedback about what aspects of the program participants found the most useful and why. This section first presents the results for all activities overall, and then reports results for each different activity separately.

All Wilderness Adventure Therapy components combined

- Most frequently, participants reported that they found '*offering to help someone'* the most important social interaction or aspect overall in the majority of activities (27%).
- Most frequently, participants reported that the most important emotional reaction during or after the activity was that they *'Felt proud of their achievement'* (26%).
- Most frequently, participants reported the reason they felt that the experience was successful was that they '*felt accepted as part of the team'* (20%).

Day Bushwalk / Peak Ascent (n=26)

- Most frequently, participants reported that they found '*offering help to someone'* was the most important social interaction or aspect of bushwalking or peak ascent (39%).
- Most frequently, participants reported that the two most important emotional reactions during or after bushwalking or peak ascent was that they *'felt proud of their achievements'* (30%), and '*felt more confident than usual'*(30%).
- Most frequently, of participants reported the reason they felt that the experience was successful was that they '*felt accepted as part of the team'* (37%).
- Their overall rating of the degree of *challenge* in bushwalking or peak ascent: 5.5/10
- Their overall rating of the degree of *learning* in bushwalking or peak ascent: 8.5/10

Caving (n=19)

- Most frequently, participants reported that they found '*really pushing myself to the 'max''* was the most important social interaction or aspect of caving (20%).
- Most frequently, participants reported that the most important emotional reaction during or after bushwalking or peak ascent was that they *'felt proud of their achievement'* (22%).
- Most frequently (32%) of participants reported the reason they felt that the experience was successful was that they '*were able to put up with the situation'.*
- Their overall rating of the degree of *challenge* in caving: 7/10
- Their overall rating of the degree of *learning* in caving: 8/10

Abseiling & Rock-climbing (n=14)

- Most frequently, participants reported that they found "*doing something risky'* was the most important social interaction or aspect of abseiling and rock-climbing (25%).
- Most frequently, participants reported that the most important emotional reaction during or after abseiling and rock-climbing was that they *'felt proud of their achievement'* (27%).
- Most frequently (21%) of participants reported the reason they felt that the experience was successful was that they '*realised something about (themselves).*
- Their overall rating of the degree of *challenge* in abseiling and rock-climbing: 6/10
- Their overall rating of the degree of *learning* in abseiling and rock-climbing: 6/10

Day Rafting (n=25)

- Most frequently, participants reported that they found ' *offered help to someone'* was the most important social interaction or aspect of rafting (29%).
- Most frequently (22%) participants reported that the most important emotional reaction during or after rafting was that they *'saw the funny side of a problem'.*
- Most frequently, of participants reported the reason they felt that the experience was successful was that they '*felt accepted as part of the team'* (21%).
- Their overall rating of the degree of *challenge* in rafting: 5/10
- Their overall rating of the degree of *learning* in rafting: 6/10

Cross-country Skiing (n=8)

- Most frequently, (33%) participants reported that they found '*learned something about myself'* was the most important social interaction or aspect of cross-country skiing.
- Most frequently, participants reported that the two most important emotional reactions during or after rafting were that they *'felt proud of an achievement'* (38%) and they *'saw the funny side of a problem'* (38%).
- Most frequently (25%) of participants reported the reason they felt that the experience was successful was that they '*learned by watching someone else'.*
- Their overall rating of the degree of *challenge* in cross-country skiing: 4/10
- Their overall rating of the degree of *learning* in cross-country skiing: 6/10

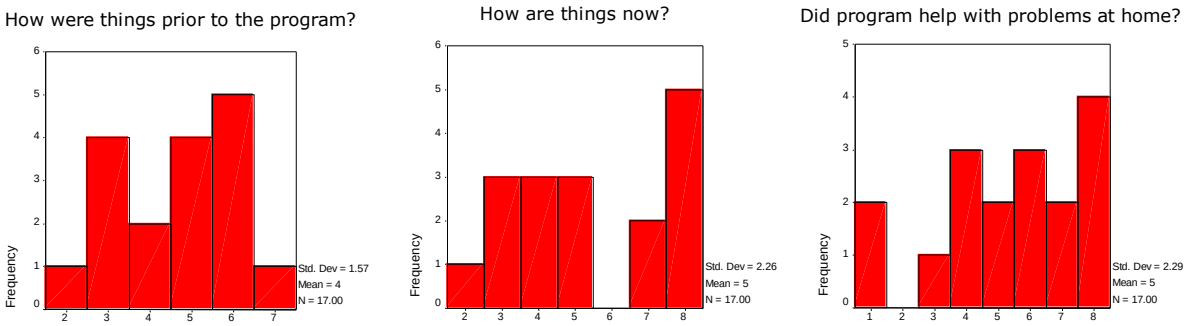
Multiple-day Extended Expedition (n=8)

- Most frequently, participants reported that they found both *'Really pushed myself to the max'* (31%) and *'offering help to someone'* (31%) were the most important social interaction or aspect of an extended expedition.
- Most frequently, participants reported that the two most important emotional reactions during or after rafting were that they *'felt happier than usual'* (38%) and they *'felt proud of an achievement'* (31%).
- Most frequently, participants reported the two most important reasons they felt that the experience was successful was that they '*felt accepted as part of the team'* (23%) and that they '*saw that others had the same problems'* (23%).
- Their overall rating of the degree of *challenge* of an expedition: 9/10
- Their overall rating of the degree of *learning* of an expedition: 7/10

11 Client Satisfaction and Therapeutic Factors Survey

Participants in the program and the partnership and referring agency staff also completed several questions evaluating the program and WAT in general. Histograms of their feedback are provided below for each of the evaluation questions. Summary of the findings are provided beneath each group of histograms.

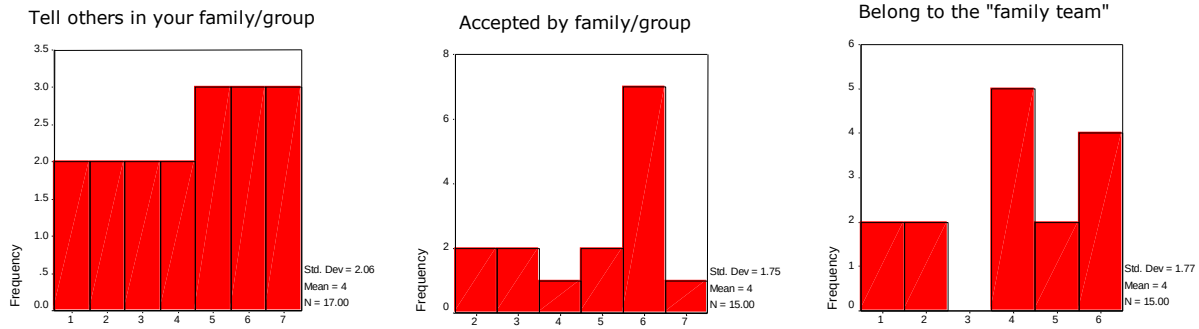
11.1 *Outcomes from the programs reported by participants*



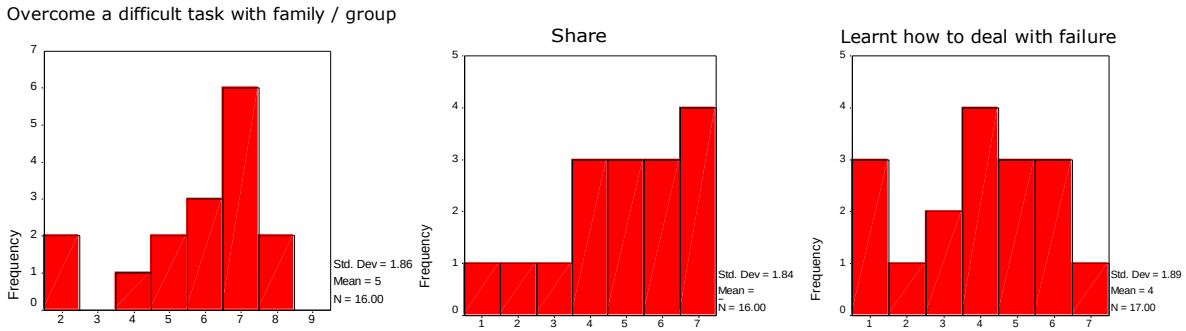
Summary: A majority of participants had reported that things had improved over the program (from mean of 4 to 5) and the program had helped at home (numbers greater than 5 represent greater agreement or more positive rating, and less than 5 the opposite).

11.2 *Aspects of the program participants reported were important to therapeutic gains*

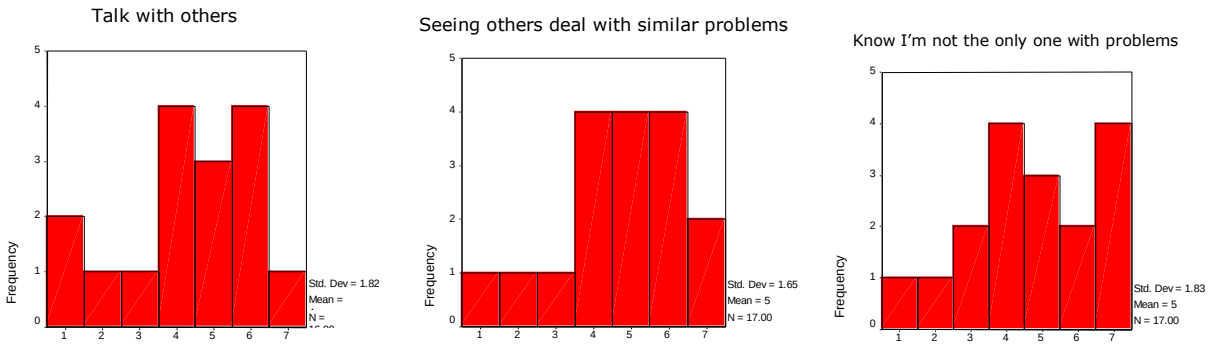
(NB: A rating of 4 or greater represent greater agreement or more positive rating, and 3 or less the opposite)



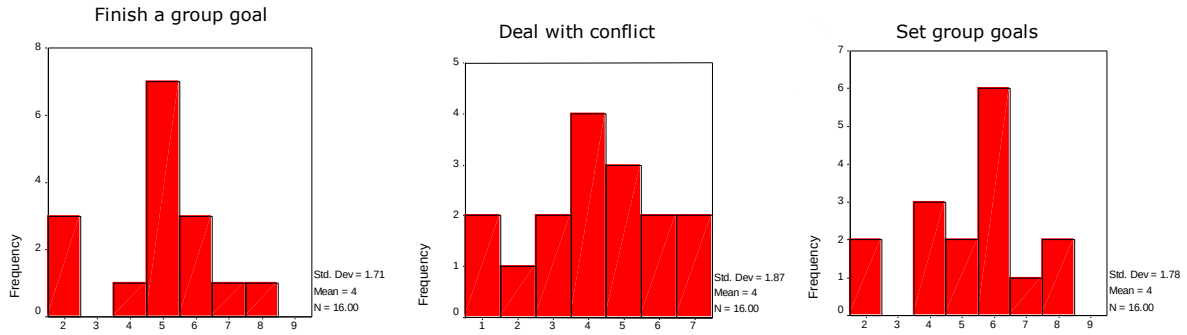
Summary: A majority of participants reported that telling their family and others in the group how they felt, being accepted by their family and the group, and feeling like part of the family team were important.



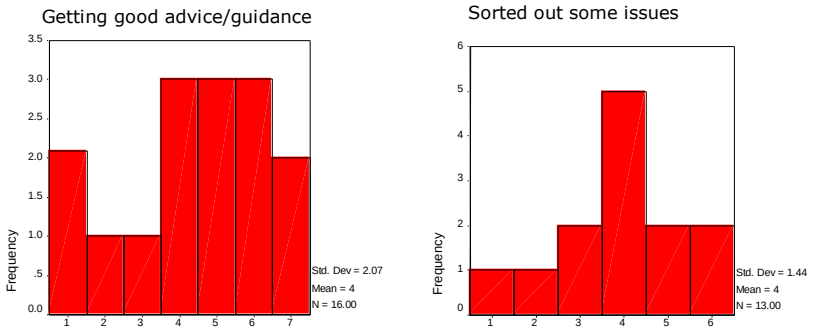
Summary: A majority of participants reported that overcoming a difficult task as part of the family team, sharing a challenge and learning how to deal with failure were important.



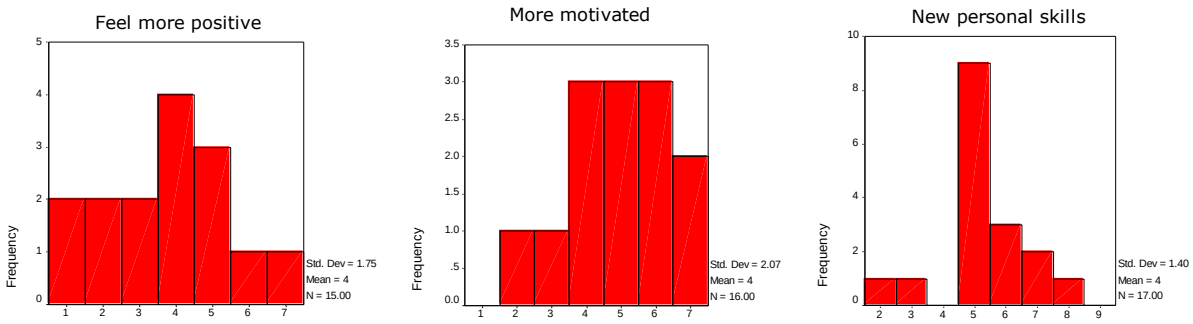
Summary: A majority of the participants reported that talking with others and find out that others had similar problem to the ones they had to deal with were important.



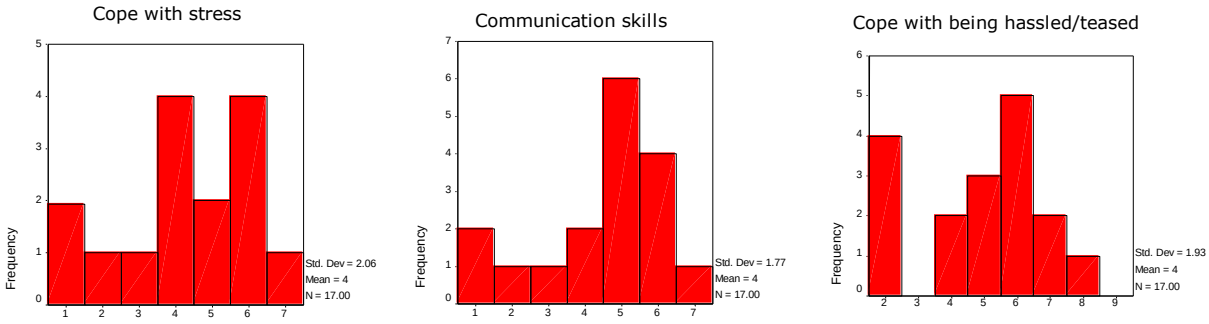
Summary: A majority of participants reported that being able to set group goals was important, however fewer reported that they felt *finishing* group goals was important, and most said learning to deal conflict was important.



Summary: Most participants said being able get some good advice, and being able to sort out some issues were important.



Summary: A majority of participants reported that feeling more positive, motivated and learning new personal skills was important.

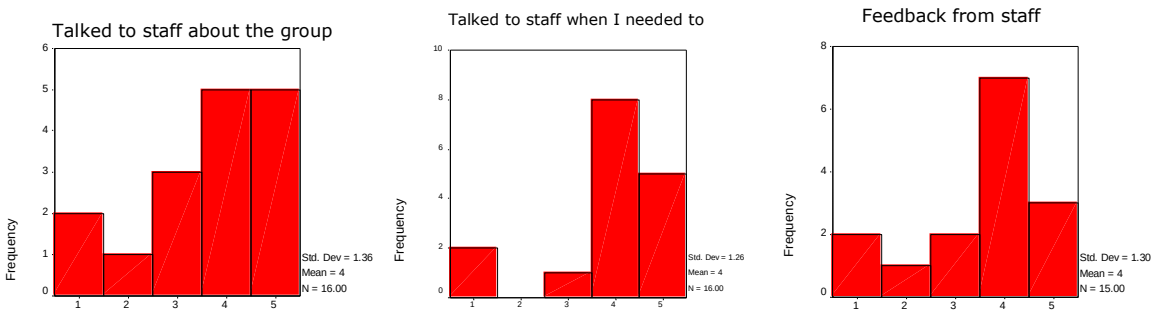


Summary: A majority of participants reported that learning how to cope with stress and learning new communications skills was important, however only a few participants reported that learning to cope with being hassled was important (likely to be due to this not being a problem for them).

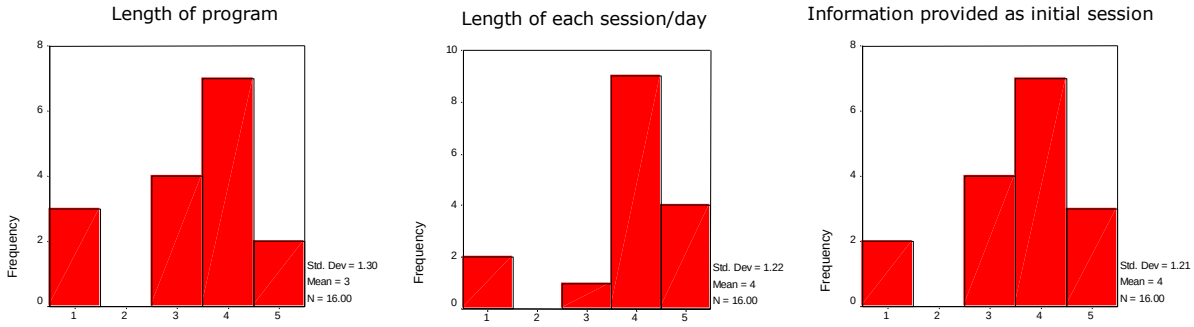
Summary: A majority of participants reported that having a relationship with an adult who saw the positives or who cared, and learning about acceptable behaviour were important.

11.3 *Satisfaction with the program and communication with SWATRAD staff*

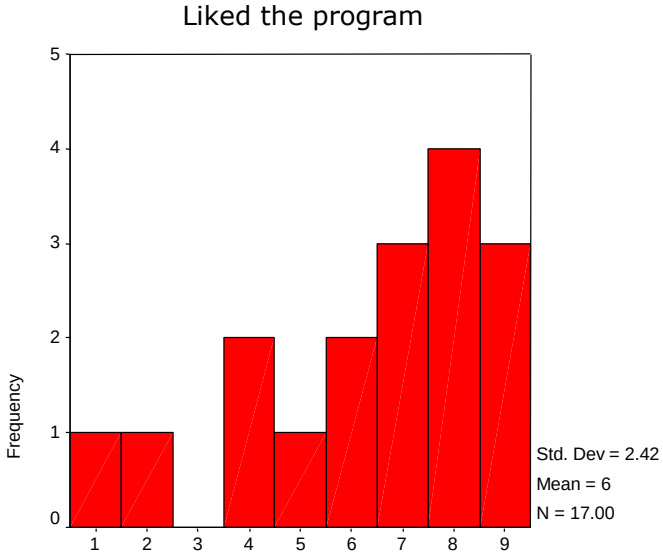
(NB: A rating greater than 3 represents greater agreement or more positive rating, and less than 3 the opposite)



Summary: A majority of participants felt that they could talk to staff when they needed to, could talk about the group to staff if they were bothered by anything, and were happy with feedback from staff.

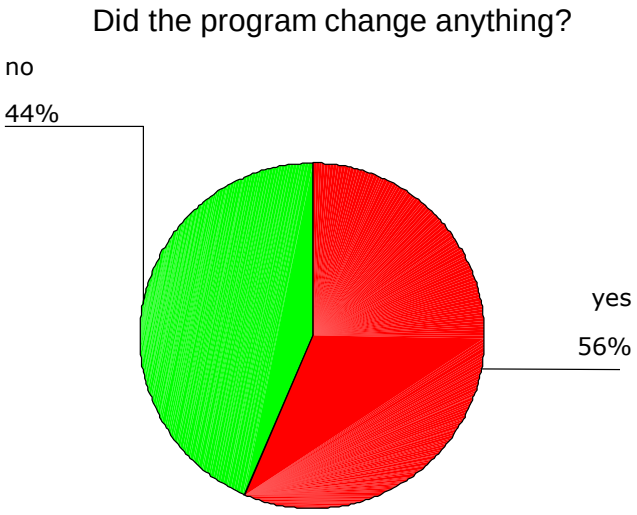


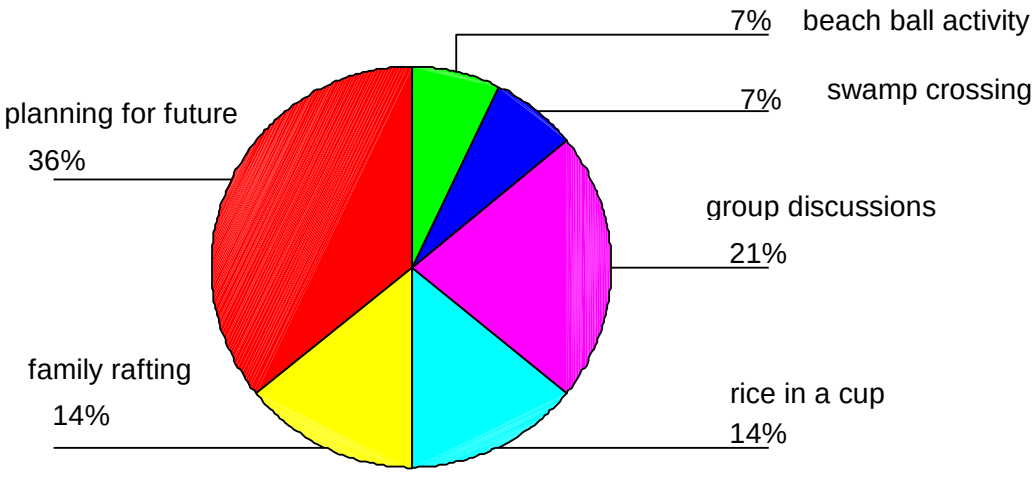
Summary: A majority of participants reported that they were happy with the length of the program and the sessions planned each day, and were also happy with the information provided at the initial information session.



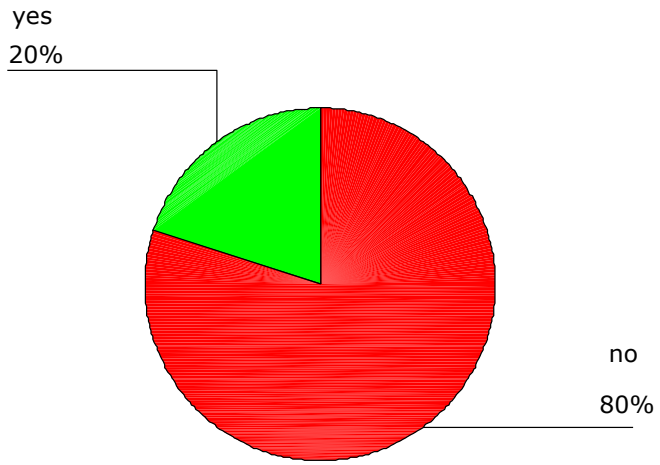
Importantly, the majority participants reported that they liked the program.

11.4 *Outcomes for family-based programs only*

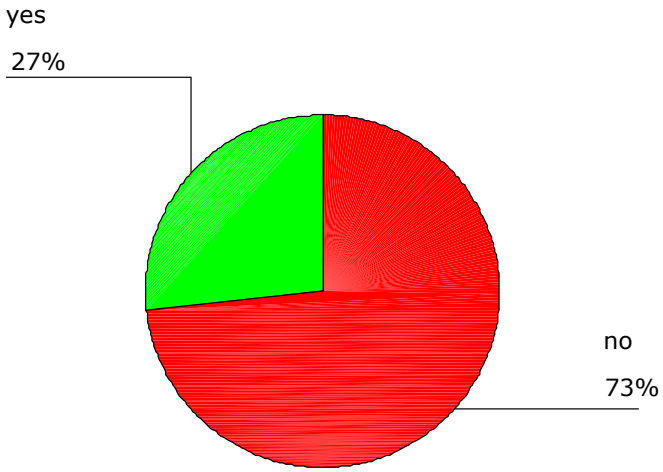




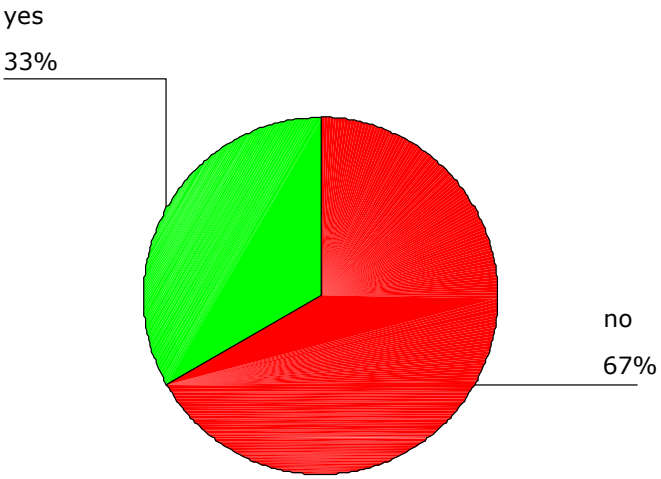
Did you find trusting your family difficult?



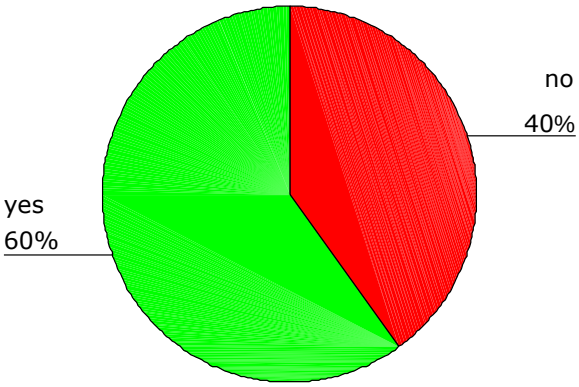
Did you find trusting others difficult?



Did you find trusting staff difficult?



Did you find talking about issues and problems difficult?



12 Agency / School Evaluation

Partnership agency and school staff and referring professionals were surveyed about their views about the clinical value of Wilderness Adventure Therapy. These results are summarized in Figure 2.33 below.

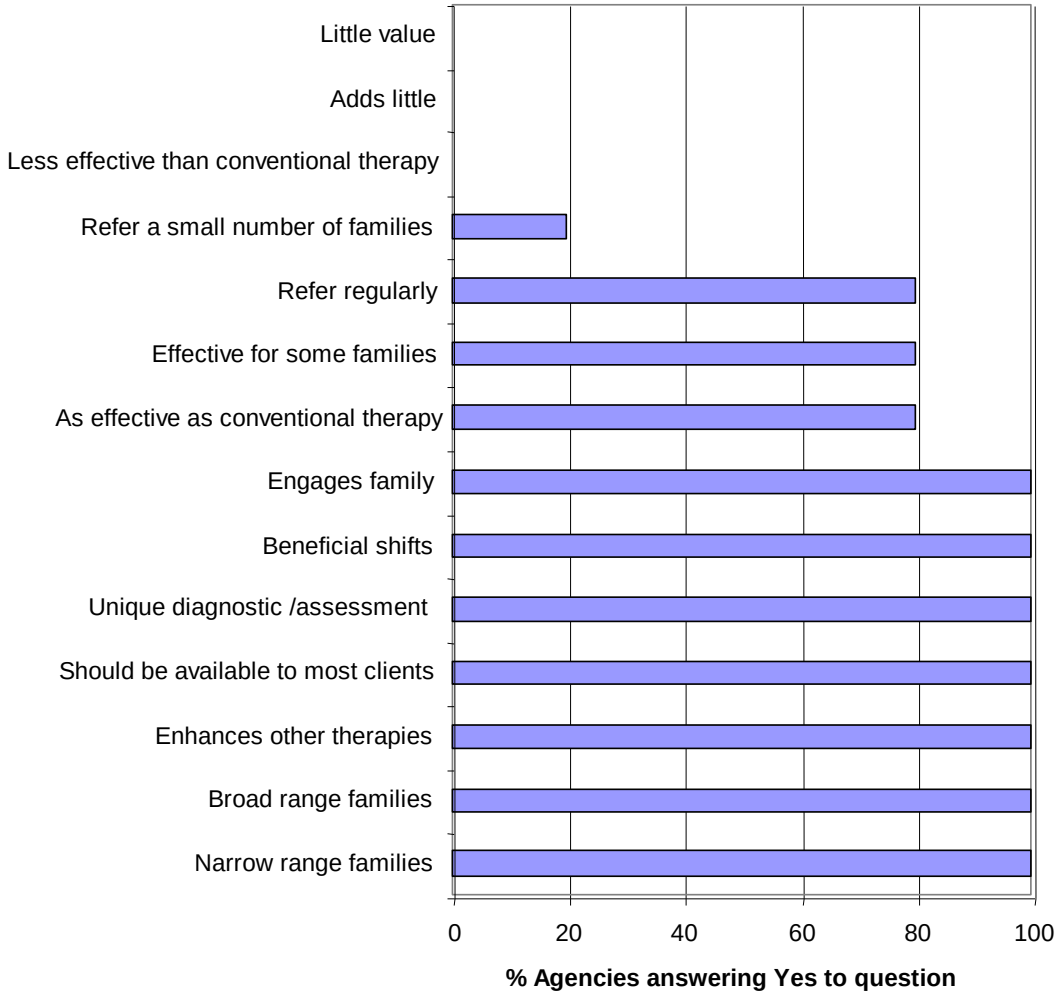


Figure 2.33: *Percentage of agencies answering 'yes' to Agency evaluation questions.*

The feedback from agency and school staff and referring professionals was exemplary. All respondents reported that they had seen beneficial shifts in their clients after participation in this program (100%), they believed that this form of therapy was effective in engaging families in therapy (100%), and that they saw this from of therapy was a unique diagnostic and assessment program (100%). Furthermore, all respondents believed that this program enhanced other concurrent therapies (100%), and was of adjunctive benefit (100%). The fact that 100% of respondents reported that they believed that this form of therapy should be available to most clients and would refer regularly (80%) illustrated their satisfaction with the program, and the other 20% reporting they would refer a small number of families.

A majority of respondents agreed that this form of therapy was as effective as conventional therapies (80%), and no respondent believed this form of therapy was less effective than conventional therapies (0%), or had little benefit (0%). Similarly 80% of respondents believed that this form of therapy would be effective for some of the families referred to their agency or school.

Section E: Discussion

13 Client Profile

Participants in the SWATRAD sample spanned the entire adolescent age spectrum with the majority of the sample being female (83%). The most common reason for referral to the program was depression (24%) followed by relationship problems (19%). On average, there were 8 additional presenting problems, most commonly family problems (76%), self-esteem (76%), suicidal behaviour (56%), depression (56%), school reluctance (52%), poor peer relationships (52%) school behavioural problems (48%), and self-harm (40%). Mood disorder was the most common diagnosis among the sample, and delinquent behaviour was the most commonly reported psychological problem by adolescent participants. Clearly, the participants of the SWATRAD project presented with a broad range of serious psychological, emotional and behavioural problems.

Additionally, sexual abuse and physical abuse was common in this group (32% and 24% respectively), as was having a parent with a mental illness (22%) and having housing problems (20%). This group also experienced substantial stressors in the form of failing one or more subjects at school (64%), hassling with parents (55%), using drugs or alcohol frequently (36%), and being in trouble with teachers (36%).

Taken all together, these results describe a profile of numerous and compounding risk factors for this cohort. Fortunately, however, the project appears to have reached a very needy group. Additionally, approximately one third of adolescents had no previous or concurrent service involvement, suggesting the project had reached a substantial proportion of adolescents who were not engaged with professional help. The project and therefore a 'multiple levels of care' (early intervention, community counselling and clinical treatment) service approach appears to have been effective in reaching and engaging high-need adolescent clients and their families who are otherwise receiving no professional support or treatment.

14 Treatment Outcomes

For any treatment to be considered effective, evidence must be found following treatment that shows not just a reduction in symptoms of the disorder it sets out to treat but also an improvement in functioning and factors associated with resilience. This study lacks a non-treatment (control) group to compare post-treatment changes (as in the case of a randomised controlled trial, the highest standard of evidence possible). Therefore, results discussed here should be viewed with some caution. Nonetheless, these results should also be seen in the context that this study does provide the next level of evidence that is ethically and practically available to researchers, and that the ideal research methodology will most often be outside our grasp. The methodology employed in this study, aims to show sustained improvements in the immediate time following treatment. This design is best suited to studying the effect of treatment on conditions that are likely to continue, or worsen, if left untreated (which can be assumed here). Further, if positive treatment outcomes can be established over numerous time periods and across a number of different service settings and with different client groups, the evidence for a causal relationship between the WAT intervention and therapeutic gains becomes much stronger.

14.1 *Risk factors*

Mental health symptoms

For SWATRAD clients (as well as BIP and GO WEST clients), in terms of the most severe

symptom area, these showed a significant reduction from clinical levels to non-clinical levels following the WAT intervention, and remained at follow-up. This result is most important as it shows that in the area of greatest need, clients are experiencing reduced symptoms that are clinically meaningful. In terms of differential treatment effects, there were good outcomes with the cluster of 'internalising' symptoms (depression/anxiety, somatic complaints and withdrawn behaviour), that was sustained at follow-up.

Further, there appears especially good effect for clients with aggression immediately following treatment. However, with the broader cluster of 'externalising' symptoms that also includes delinquent behaviour, benefits seem short-lived, with a return of these two groups of symptoms at follow-up. This suggests that WAT interventions can impact on these problems, but for there to be sustained benefit, booster sessions, and possibly medium to long-term follow-up, might be required. Alternatively, more intensive treatment, such as full-time day-patient treatment may be necessary to effect more lasting change. This is supported by the BIP program data that suggests when positive changes can be made, these changes will continue to improve in the long-term, up to 5 years.

Depression

Results from SWATRAD clients show a clear and lasting reduction in depressive symptoms that is consistent with other settings and client groups as shown by the BIP and GO WEST results. The magnitude of symptom reduction is also impressive compared to other treatment outcome research with larger sample sizes, and when compared to adults with formally diagnosed Major Depressive Disorder who were treated with a combination of Cognitive Behavioural Therapy (CBT) and anti-depressant medication (the two most efficacious treatments for depression reported in the literature). It seems clear that clients with depressive disorders, or at least depressive symptoms appear to respond well with clinically meaningful reductions in symptoms. Such magnitude of benefit appears comparable to the most efficacious treatments reported in the literature (CBT and medication). The results from the BIP program, which was a combined WAT and CBT program, compared to the GO WEST program (WAT alone) suggest there is no advantage in combining the two. However, the day-patient sample from the BIP program presumably has more ingrained problems than the GO WEST out-patient clients. Controlled, treatment cross-over designs are really the only way to really answer this question fully.

Suicide & self-harm risk

Interestingly, SWATRAD clients reported clearly 'at-risk' levels of life threatening attitudes pre-treatment. This is in contrast to the clinical out-patient sample of the GO WEST group which was clearly bellow this 'at-risk' threshold before treatment. However, despite no significant changes following treatment or at follow-up with SWATRAD clients, at the 2-3 month follow-up point, their average level of risk was below the 'at-risk' cut-off. This importance of the longer time-frame is also apparent with GO WEST clients who showed a significantly lower level of risk at 3 months follow-up. This suggests that reductions in suicide and self-harm risk may take approximately 3 months or more to take affect. This is an interesting hypothesis, that could be investigated with future studies with longer and multiple follow-up data collection points. This hypothesis could be supported theoretically as attitudinal changes are likely to take some time to become integrated and actual life-enhancing behaviours adopted as a consequence. Further, this result points to the importance of more than one follow-up booster session to generalise and integrate changes.

14.2 *Protective factors*

Self-esteem

General and social self-esteem improved following treatment, and school self-esteem showed a delayed improvement at follow-up. Interestingly, the magnitude of these changes suggests a powerful effect on self-esteem. These changes replicate the findings of results with GO

WEST clients. The delayed change in school self-esteem may reflect a process that begins with improvements in overall and social self-esteem in particular that take time to generalise to the school environment once the program has finished and greater attention is given to the client's normal environment. This hypothesis would be best tested using a control group designed study.

Coping behaviour

The data for the frequency of both productive and non-productive coping suggest desirable trends, but these failed to reach statistical significance for either SWATRAD or GO WEST samples. It would appear that with a larger sample, such data would yield significant results. While it may be that clients learn to use more productive coping and less non-productive coping through WAT treatment, the intervention approach did not explicitly aim to impart specific coping skills. It may be an important consideration for the development of future WAT interventions to explicitly aim to teach productive coping strategies and discourage non-productive coping approaches as overall treatment goals.

School functioning

For those early-intervention SWATRAD programs that assessed teacher's observations on school functioning, some interesting trends were observed. Given that this sample was even smaller than the overall SWATRAD sample, such trends are very encouraging. Overall social competence and school functioning, and specifically school adjustment, suggest change post-treatment and at follow-up, respectively. This suggests that the benefits from school-based WAT programs did generalise to the school and broader peer environment. Further, being teacher report, these results confirm the validity of the adolescents' self-reported improvements on other measures.

Family functioning

Improvements with family relationships were reported by adolescents in the areas of communication, co-operation, understanding, and overall feeling within the family. Improvements in all areas of family functioning were similarly reported by parents (which is also generally consistent with results from the GO WEST sample). This finding, while based on qualitative data, supports the idea that improvements following treatment also included improved relationships with family members, and the development of more psychologically healthy home environments. Importantly, the delay of similar changes in the GO WEST sample suggest that immediate post-treatment benefits from WAT programs appear *not* to be due to improvements in the family environment, thereby ruling-out family factors as a possible explanation for post-treatment improvements.

Resilience factors

These non-standardised surveys returned a pattern results that showed mixed outcomes, but more often than not, these results showed suggested enhanced protective factors, or resilience. These results were only collected from the SWATRAD-ACE programs. Generally, clients reported improved connectedness, trust in others, ability to solve problems, willingness to seek help, optimism about the future and confidence in making and maintaining friendships. These results are affirmed more consistently by GO WEST client results. Of note, however, the GO WEST changes appeared not to persist as long as the SWATRAD-ACE clients, which may reflect the generalization into the school environment that may have occurred for SWATRAD-ACE clients , but which would be less likely for the GO WEST out-patient clients.

Interestingly, parents reported mixed results. First, they reported improvements in connectedness, trust, working with peers, confidence in friendships and ability to deal with hassles at post-program. However, they also reported reductions in expressing feelings, solving problems, optimism, perseverance, and likelihood of completing the school year and Years 11 & 12. These apparently contradictory results would be consistent with perceptions of

generally improved social relationships but a greater awareness in their child's difficulty in coping that they presumably may not have been aware of before the program. Given that the program aimed to involve parents directly in the WAT program, their awareness and understanding of the severity and impact of their child's problems was likely to increase. So, this result may actually reflect an outcome that was actually sought. However, this question, and these results warrant further investigation.

Teachers of SWATRAD-ACE clients were more consistent in their view of them. They reported improved connectedness, trust, confidence in making friends, greater likelihood in asking for help and express their feelings, greater confidence in solving problems, increased optimism and perseverance, and dealing with hassles. Presumably teachers were well aware of the problems their students were facing, as they were the ones to refer them to the program. The lack of perceived change in students' preparedness to complete school may reflect their greater understanding of the difficulties they faced, again as a result of the program that aimed to increase teachers' awareness of the specific issues of their students. Again, however, this question warrants further investigation.

14.3 *Outcomes for different client types*

Results from SWATRAD clients (as well as GO WEST and BIP clients) suggest robust treatment effects. This is consistent with other research that has reported benefit to a wide range of different client types through adventure and wilderness therapy (Crisp, 1997). Generally, the results suggest that a wide range of psychological, behavioural and family-related problems are effectively treated with WAT. In particular, clients who present with depression and anxiety symptoms, social problems, attentional problems and delinquent behaviour appear to respond the best from this sample of clients types. While external behavioural problems seem to require more intensive follow-up, those clients with internalizing symptoms seem to show best long-term benefits.

These empirical outcomes are also consistent with the clinical observations reported in the program case studies described in Part 1. Together, this presents a persuasive picture of treatment benefits for the different clients groups studied separately, as well as the overall pool of adolescent clients that comprise the SWATRAD, GO WEST and BIP samples.

15 Therapeutic Factors

15.1 *Process evaluation*

Information was gained throughout each of the peer-group programs about clients' WAT experience in terms of psychological effects and therapeutic factors of each WAT activity. However, these results are susceptible to the sequencing effects of data collection. Additionally, baseline effects may also distort responses. That is, the client's first experience is judged by them without reference to anything else, and conversely, the later experiences may be compared to the previous ones. Further, the stage of group development may affect the quality of the experience and bias responses.

Nonetheless, the overall responses showed that altruism (offering help to someone) was the most common important aspect or social interaction during WAT activities. The second most common was "pushing myself to the 'max'". In terms of the mental states experienced during WAT experiences, feeling proud of an achievement was the most common most important, and the second most common was confidence, followed by feeling happier.

When clients were asked why they felt the experience was therapeutic, the most common reported was feeling accepted as part of a group (group cohesion). This was also true for specific activities such as day and expedition bushwalking and day rafting. Being able to tolerate adversity was the most common explanation given for caving. Gaining insight into oneself was reported as being most important during abseiling / rock-climbing. Learning by watching others (vicarious learning) was most important during cross-country skiing, and finally, seeing that others have the same problem (universality) was reported as most important during the multi-night expeditions.

These results suggest that opportunities for altruism, self-worth through personal achievement, and peer acceptance and group membership appear to be the most important elements of clients' experience. It would therefore follow that specific WAT interventions (activities) and the therapists' approach should optimise opportunities for these types of experiences for clients.

Interestingly, the link between the level of perceived challenge and degree of perceived learning holds for most activities. That is, the higher the level of challenge perceived within the activity, the greater the learning reported. However, the rating of challenge was always rated as less than the degree of learning, the exception being the multi-day expedition. Exceptions to this challenge-learning relationship appear to be day bushwalk and cross-country skiing. These results appear to confirm that challenge does not have to be high to affect learning, that is, moderate challenge is likely to result in high levels of learning. Further, physical challenge and anxiety-based activities (caving, abseiling & rock-climbing and rafting) are therapeutic, perhaps, because of the challenging emphasis of these activities. On the other hand, bushwalking, skiing and expeditions perhaps rely on other factors, such as social interaction for therapeutic benefit. Further research into therapeutic factors is of critical clinical importance. Practitioners (and clients) would be well served if they could draw on research to inform them which clients benefit most from which WAT activities, and why.

When we consider the overall treatment benefits reported in the section, it would appear that psychological improvements may be related to self-efficacy, that is the belief that one can effectively perform a task or overcome a problem or stressor. Also, socialisation aspects, perhaps similar to conventional group therapy, may also be instrumental in bringing about therapeutic improvements.

Interestingly, in the family WAT programs, clients reported that planning for the future followed by group discussions were the most valuable aspects of the program. This again

emphasises the importance of both goal-directed actions as well as generic elements of group therapy in gaining therapeutic benefit.

15.2 *Consumer survey- family programs*

The majority of clients involved with family WAT programs reported the factors that were important in their experience of WAT could be group into five types. First, a group experience, social interaction and learning, and cohesion within the family through shared experience were seen clearly as important:

- Expressing how they felt to their family and others
- Feeling accepted by the family or group
- Feeling they belonged to the 'family team'
- Talking to others in the group
- Sharing experiences with their family
- Seeing others with similar problems
- Knowing that they are the not the only one with their problem
- Being able to get advice form others in the group

Second, learning about problem solving and dealing with failure were important:

- Overcoming a challenging task with their family
- Setting group goals
- Learning how to deal with failure

Third, working through specific issues faced within the family and managing conflict positively were important:

- Learning to deal with conflict
- Being able to resolve issues

Fourth, learning family coping skills and ways to maintain a supportive and positive family milieu:

- Feeling more positive and motivated
- Learning personal skills
- Learning how to cope with stress
- Learning communication skills

Finally, having a relationship with an adult (staff) who saw their positive side, and one who also demonstrated care was also seen as important to therapeutic success.

In could be seen that these groupings of factors suggest a process that seems to be central to effective Family WAT. That is, families can address and work through their specific issues when they have positive problem solving experiences with each other and other families who also experience problems. This condition and the working through of issues needs to be facilitated by an empathic therapist who can effectively join with all members of the family and facilitate the learning of productive family coping and communication skills for future, preventative benefit.

Presumably the link here to the treatment outcomes is that family functioning is a likely source or maintaining factor in the stress or psychological and behavioural problems experienced by the identified adolescent client. In fact, 55 percent reported hassles with parents and 27 percent reported conflict with siblings as major stressors. By making meaningful changes within the family's functioning in regard to the problem the adolescent faces, this presumably has a significant impact on the severity and maintenance of their problems.

16 Systemic Outcomes

The SWATRAD project sought to trial and evaluate a *systemic* model of WAT intervention. It acknowledges the central importance of facilitating change within the client's system as much as facilitating change in the client. Consequently, the project actively engaged both the clients' families and care providers *within* the intervention, and so outcomes in these areas are of great interest.

16.1 *Consumer perspective*

Client's experience appears to have been consistently positive. Clients report that the WAT program had helped them and that they saw their problems as having improved. The majority of clients reported finding it easy to trust WAT staff, despite finding it difficult to talk about their issues and problems. A majority found they could talk to staff when they needed to, and where happy about feedback they received from staff and about the information they received at the initial information session. The length of the program, and sessions each day were agreeable to clients. Overall, the clear majority of clients liked the program.

Importantly, one third of adolescents referred were not gaining the support of professionals, and did become engaged into a treatment intervention. The overwhelming majority consistently participated in the programs with only 5 adolescents and 2 families not fully completing the program. Anecdotally, many adolescents and families who did participate had less than positive experiences with previous service providers, and, or had lost confidence in others' ability to assist with their problems, and were not engaged with services as a result. They reported viewing a WAT program with optimism and renewed motivation to change their situations.

Anecdotally, adolescent clients involved in the family WAT programs reported appreciation for their families becoming involved in a program that they often saw as primarily assisting them. They also reported that this process 'de-centered' them as the locus of the problem, and other family members shared responsibility for needing to make changes. Similarly, adolescent clients of school-focused programs, reported feeling highly supported to make changes simply because teachers actively participated along-side with them. The effect in strengthening relationships both within the family and outside to school staff were observed to be substantially important to adolescent clients.

16.2 *Family perspective*

Feedback from family members and parents has been broadly positive and encouraging. Both parents of adolescents involved in the peer group only programs, as well as families involved in family WAT programs reported that the programs were very appealing and had high social value. In particular, family based programs appeared to engage fathers particularly well because of their active nature. Often fathers had not previously participated in any other forms of counselling.

Anecdotally, families reported that being involved in the programs was not just novel because of the wilderness adventure modality, but because they were directly involved in the intervention, and thus change process. This appeared to challenge some families, however, as the programs progressed, trust developed with staff and other group members, these families often became the most enthusiastic participants and proponents of the program.

16.3 *Agency perspective*

The experience of referring professionals and agency staff was clearly very positive. The vast majority saw WAT as effective as conventional therapy and would refer clients regularly if they had the option. Interestingly, all professionals believed that WAT was valuable in engaging families into treatment, held unique diagnostic assessment value and enabled beneficial shifts

in clients. It should be noted that many agencies and professionals had had no previous experience with, or knowledge of WAT prior to their involvement with the SWATRAD project.

Anecdotally, there was very strong interest in having access to WAT programs in the future to engage clients who they had not successfully engaged previously. Also, professionals reported a range of benefits for clients beyond treating their psychological or behavioural problems. They viewed WAT programs as both effectively treating the client but also simultaneously significantly enhancing normal psychological and social development - strengthening clients' capacity in a range of other areas of life, such as education, motivation and life planning. Additionally, it appeared that by being so actively involved in providing such an innovative therapeutic modality, participating professionals were exposed to often vastly alternative approaches to working with their clients. It was observed that this may have had a 'flow on' effect in the ways these professionals approached their work with their clients, thus affecting a change in organisational culture, and practices more broadly. However, this remains a hypothesis at this stage, but would be of interest to study further.

17 Conclusion

17.1 *Current results*

Overall, the results for the SWATRAD project are very promising. This is especially so, when compared to studies of other program models in the Australian context that have failed to show any meaningful evidence of benefit (Brand, 2001; Crisp, 2003).

Most problems respond well to WAT, with depression in particular showing treatment effects of comparable magnitude to those of combined medication and conventional Cognitive Behavioural Therapies. However, more problematic behavioural problems such as delinquency may require greater intensity of treatment or a multiple booster sessions in the short term (3 to 6 months). Future risk appears to be reduced in the short-term, but the results are less clear and warrant further investigation. However, protective factors such as self-esteem, social competence and school functioning and family functioning have shown clear improvements, and increases in productive coping approaches are probably likely, but require a larger sample to demonstrate this. Further, the non-standardised data for resilience factors were positive in the majority of areas, but did furnish some mixed results.

Within peer-group WAT programs, the most important therapeutic factors that appear to arise from WAT support a self-efficacy (Bandura, 1977) theory of change, and a peer socialization processes and, or, generic group therapy factors (Yallom, 1995). Interestingly, the level of challenge or stress did not need to be high to achieve therapeutic learning. However, the activities perceived to be more challenging were considered therapeutic due to self-efficacy processes, while those activities perceived to be less challenging were considered therapeutic due to socialization and generic group therapy processes. Within family WAT programs, the therapeutic aspects seem to be related to opportunities for positive problem-solving that allow important family issues to be addressed within a supportive multi-family group setting that used discussion. Further, being able to learn how to manage conflict and failure, as well as skills and strategies for improved family functioning in the future were seen as equally important aspects of the program.

The WAT interventions appeared to be effective in engaging adolescents and families who had substantial psychological and behavioural problems. Approximately one third of these has been receiving no professional support. The clear majority of adolescents and families reported positive experiences through the program and felt that such interventions were attractive and had benefits much broader than just treatment of the identified adolescent client's problem. Similarly, agency staff and referring professionals found WAT to be a centrally useful addition to the repertoire of therapeutic services they would offer to clients, and saw WAT as beneficial and appropriate to a wide range of clients. They believed the gains from such programs were as great as other conventional programs and WAT programs were able to engage typically reluctant clients and families into treatment.

17.2 *Future research*

Despite the promise of this treatment modality, there is no research published to date that has specifically and rigorously evaluated the efficacy of this approach with depression and related disorders such as anxiety or conduct disorder. It seems that this modality possibly holds unique value in engaging marginalised adolescents and promoting resilience through 'stress-inoculation' and building peer, family, school and community cohesion, and therefore warrants a more in-depth and methodologically rigorous investigation. This could take the form of clinical trails of systemic WAT programs with homogenous client groups of depressed or conduct disordered adolescents, and utilizing quasi-experimental methods, including wait-list control groups or cross-over designs with conventional treatments such as CBT. The base of evidence collected thus far compellingly argues the case for more effort and resources to be directed towards this type of clinical research.

While results here give some understanding of the relative benefits for different client types and presentations, it would be worth investigating other client variables that may be related to good outcomes. In fact, Crisp (1997) found that certain client variables were reported by practitioners to be associated with better outcomes. These client variables could be studied more empirically in future studies:

- having a physical orientation
- capacity for reflection
- environmental awareness
- group cohesion
- clients/families with the ability to think metaphorically
- recency of trauma or onset of mental health problem
- internalising disorders
- family support
- greater understanding of group processes
- educational success

Further, a whole range of other research approaches would be worthwhile, including investigating gender differences, client group composition variables (ie. mixed gender versus single gender groups), therapist or WAT team variables effect on client outcomes, the various contribution of different types of WAT activities, that is, anxiety and physical challenge based activities versus socially focussed, community building aspects, or individually-focussed activities such as abseiling versus group-focussed such as rafting. Newes (2001) discusses in some detail other pertinent research questions.

Ultimately, there needs to be a clear research agenda for this field that is logical and progressive, but also realistic and responsive to community need. Much research in the past has sought to answer questions that have already been answered, or are not meaningfully answered with the methodology used. Similarly, the bulk of the literature is replete with descriptive research of poorly defined therapeutic methods that are not easily replicated, nor transferable to other settings. Research resources are finite and valuable, so care needs to be taken in choosing what to research and how. It would be sensible to begin with an economic estimation of the relative burden of disease of different adolescent problems, determine the potential contribution that systemic WAT interventions could make in this regard, and set priorities around what are meaningful questions to investigate, the answers to which would lead to meaningful and practical action in terms of policy development, but also the provision of services to those most in need, who can be helped the most.

TREATMENT EFFECTS OF A GROUP BASED COPING SKILLS INTERVENTION FOR HIGH RISK DAY-PATIENT ADOLESCENTS WITH AND WITHOUT A HISTORY OF SUICIDAL BEHAVIOUR

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Chapter 1

Introduction

1.1 Approaches to Understanding Adolescent Suicide Interventions

There has been an increasing acknowledgement in the literature that adolescence represents an important and distinct stage of development, more than simply a transition from childhood to adulthood. Further, this stage has significant implications for mental health issues generally and the occurrence of suicide in particular (Kazdin, 1993, 1995; Spirito, 1996).

Research challenges the assumption that normal adolescence inevitably involves emotional and behavioural upheaval. While 80% of adolescents pass through this phase with little trouble, it is estimated that 20% of adolescents experience significant mental health disturbance (Offer & Schonert-Reichl, 1992; Sawyer et al., 2000). The literature offers little to aid an understanding of adolescent help-seeking behaviour for such problems or for suicidal behaviour (Offer & Schonert-Reichl, 1992) except that 3 out of 4 Australian adolescents with mental health problems do not seek treatment, with 39% preferring to manage their problems themselves, and 18% believing that no-one could help (Sawyer et al., 2000). In two reviews of the literature on adolescent mental health interventions, Kazdin (1993, 1995) emphasises the need to study high-risk populations in order to devise interventions that might reduce the high level of mental health morbidity and mortality. Due to concerns about suicide amongst young people, this area has attracted significant attention across the community and in recent Australian and international literature (Krupinski, Tiller, Burrows & Hallenstein, 1994; Spirito, 1996; Tiller et al., 1997; Victorian Government, 1997).

Three dominant paradigms of research into suicide emerge from the literature. The *recidivist* approach seeks to understand suicide as a behavioural phenomenon that is regulated by environmental stressors and reinforcers (Kazdin, 1993). A further two paradigms that relate to each other are the *risk* (Beautrais et al., 1997) and *resilience* (Resnick et al.,1997; Rutter, 1990) paradigms. The risk model is an empirical medical-model approach that attempts to explain suicide in terms of risk factors that best predict

the occurrence of a suicidal act. Conversely, the resilience model seeks to understand the protective factors that mitigate the risk of suicide in those who are at risk.

The more recent literature has focused on the empirically based risk-factor and resilience approaches. The literature is supporting this approach because it is argued that an actuarial approach will best identify those most likely to attempt suicide, therefore allowing targeted, and presumably more effective anti-suicide interventions (Grosz, Zimmerman & Asnis, 1995; Spirito, Brown, Overholser & Fritz, 1989).

1.2 Characteristics of Suicide Attempters

Defining suicidal behaviour. It is a truism that all people will die. However, intention to bring about one's own death involves a decisional causality. Hjelmeland and Knizek (1999) make an important distinction between intention to die, and motive for death by one's own hand. For instance, behaviour that has the potential for, or is actually self-destructive or self-injurious may indicate a wish for death, but without the intention of it in the immediate future. Additionally, suicidality may include passive as well as deliberate acts. Passive suicidality is where a person places himself or herself in a potentially life threatening situation which increases the probability of death but involves no active efforts to bring about death. Examples include risk-taking behaviour like [redacted]

While suicide involves the outcome of intentional death, being suicidal involves degrees of severity ranging from deliberate acts motivated by an intention to die through to exposing oneself to an increased probability of premature death. Necessarily, judgements about such gradations are highly subjective. In practical terms, because of the difficulty of determining a person's intention to die with precision, an operational definition of 'suicide' and 'suicidal' must include potentially self-destructive behaviour including self-harm.

The World Health Organisation (1977) has provided definitions of suicide in terms that differentiate the intention of death from the suicide related behaviour (Table 1.1). The most reliable source of determining a person's intention must be self-report. However, there may be motivation to deny such thoughts or behaviour among adolescents. Indeed,

self-report of suicidal intent after an attempt has been found to be problematic because of this (De Wilde & Kienhorst, 1995). Nonetheless, giving some indication, the medical seriousness of deliberate self-injury has been associated with self-reports of intention to die in previous suicide attempts (Robbins & Alessi, 1985). Further, with regard to other's

Table 1.1

World Health Organization (WHO) Definitions of Suicide and Related Behaviour

Term	*WHO definition*
Suicide	*Death from injury, poisoning or suffocation where there is* evidence, either explicit or implicit, that the injury was self-inflicted and that the person intended to kill himself or herself.
Suicide attempt	Potentially self-injurious behaviour with a non-fatal outcome for which there is evidence, either explicit or implicit, that the person intended at some level to kill himself or herself. A suicide attempt may or may not result in injuries.
Instrumental suicide related behaviour	Potentially self injurious behaviour for which there is evidence, either explicit or implicit, that the person did not intend to kill himself or herself and that the person wished to use the appearance of intending to kill himself or herself in order to attend some other end (for example to seek help, to punish others or to receive attention).
Suicide related behaviour	Potentially self injurious behaviour for which there is explicit or implicit evidence either that the person intended, at some level, to kill himself or herself, or, that a person wished to use the appearance of intending to kill himself or herself in order to attend some other end. Suicide related behaviour comprises suicidal acts and instrumental suicide related behaviour.

reports of intention to die, discrepancies between parents' and their adolescent children's reported reasons for attempted suicide vary considerably (Velting et al., 1998). Given these limitations, a clinical interview with the adolescent can provide the opportunity to develop rapport and trust which may facilitate more honest disclosure. Therefore this form of self-report is likely to be the most reliable means to determine intention to die in an adolescent who has harmed him or her self.

For research purposes, a clinical assessment that takes account of information such as self and other reported disclosures of intention to die, medical seriousness of self-injury (or *lethality*, discussed below) and peripheral motivational, environmental factors and events would be the optimal way of determining suicidality. Examples of peripheral factors would include the risk factors to be described in detail in Chapter 2. Depending on questionnaire-based self-report alone may be the next best option but may be susceptible to underestimating an adolescent's level of intent to die.

Lethality and Perturbation. Lethality of a suicide attempt refers to the likelihood of a person killing him or her self. Lethality increases with an increase in the medical seriousness of an attempt and has been found to correlate with the intent to die (Robbins & Alessi, 1985). Further, the greater the indications of intention to die (threats, suicide note, steps taken to avoid discovery, and so on), then the more likely the psychological state of the person is conducive to commit a lethal act. Perturbation (ie. agitation, mental instability) is seen as a key element in assessing the risk of a suicide attempt or degree of suicidality. Perturbation includes heightened distress, intoxication, impulsiveness, and cognitive rigidity (Leenaars & Lester, 1995). The greater the perturbation the person experiences, the greater his or her intention to die is likely to be when committing a suicidal act. The influence of mental disorder, substance abuse and cognitive factors are discussed in more detail in Chapter 2.

Incidence and prevalence. While prevalence studies have shown a relatively stable rate of suicide in the developed world in recent decades (Diekstra & Garnefski, 1995), some developed countries, including Australia, have shown an increase in suicide rates in young males in the last 2 to 3 decades (Johnson, Krug, & Potter, 2000; Australian Bureau of Statistics, 2000). In Australia, the total number of reported suicides increased from 2,096 (or 12.5 deaths per 100,000) in 1989 to 2,492 or (13.0 per 100,000) in 1999, an increase of 19% over 10 years, mostly among males. Table 1.2 shows this trend for the 15 to 24 age range. Unfortunately, suicide rates between the ages of 13 to 15 have been

estimated to account for up to 34 per cent of adolescent suicides but are not captured in the 15 to 25 year age range statistics (Beautrais, 2001b).

With regard to gender, there is a clear pattern of males completing suicide at four times the rate of females. However, the rate of suicide attempt among female adolescents is estimated to be approximately three times more than for males (Australian Bureau of Statistics, 2001). In the State of Victoria, during the period 1987 to 1996, the 15 to 24 year age group has had the highest rate of self-inflicted injuries, with female rates being more than double the rates for males in the 15 to 19 age range (Victorian Government, 1997). This gender difference in completed suicide is largely accounted for by males using more lethal means (Australian Bureau of Statistics, 2001). Though less pronounced,

Table 1.2

Deaths by Suicide in Australia in the Age Group 15-24 from 1988 to 1999

Death Rate per 100,000 Population

Year	Males	Females	Total Persons
1989	23.9	3.4	13.8
1990	27.0	4.4	15.9
1991	26.7	6.3	16.7
1992	27.0	5.7	16.5
1993	24.7	4.1	14.6
1994	27.0	4.3	15.9
1995	25.4	6.4	16.1
1996	25.7	4.3	15.2
1997	30.6	7.1	19.1
1998	26.7	6.3	16.7
1999	22.5	5.4	14.1

Reproduced from Australian Bureau of Statistics: Special Article – Suicide (25/01/2001), Commonwealth of Australia.

gender differences are also reported in the prevalence of suicidal ideation. In a preceding 12 month period, 7.5% of adolescent males and 10.2% of adolescent females reported having thought about suicide without acting on it (Resnick et al., 1997).

In an unprecedented whole population, representative-sample study of 4,500 children and adolescents in Australia, Sawyer et al. (2000) estimated the prevalence of suicidal behaviours within the previous 12 months among 12 to 17 year olds. They found the prevalence rates consistent with smaller sample size studies: suicidal ideation of 10.2% for males and 13.8% for females (all 12%); suicide plan of 7.4% for males and 10.5 for females (all 8.9%); suicide attempt of 2.7% for males and 5.7% for females (all 4.2%) and suicide attempt requiring treatment was 1.2% for males and 0.5% for females (all 0.9%).

The bulk of the literature is in agreement that the similarity between suicide attempters and those who successfully suicide is greater than the differences (Arensman & Kerkhof, 1996; Beautrais, 2001a). However, the desire for the cessation of an unbearable consciousness has been inferred as phenomenologically differentiating completed suicides from attempted suicides (James & Hawton, 1985; Kienhorst, De Wilde, Diekstra & Wolters, 1995). Suicide attempters report the following most common reasons for their attempt: (a) to cease an unbearable consciousness (80%), (b) to stop feeling pain (75%), and (c) to escape an impossible situation (71%) (Kienhorst et al, 1995). On most other variables, the literature presents mixed findings. Hence meaningfully measurable differences between suicide attempters and completed suicides are as yet undetermined (Beautrais, 2001a; Brent, 1995).

1.3 Theories of Adolescent Suicidal Behaviour

There are a number of motivational dimensions that potentially offer an explanation of suicide. Intent to die, expectation of death, and expectation of the results of one's suicide on one's social environment are factors that are likely contributors (Bancroft et al., 1979; Hawton, Cole, O'Grady & Osborn, 1982; James & Hawton, 1985; Kienhorst et al, 1995). For instance, Kienhorst et al. (1995) in a survey of suicide attempters found that "cessation of an unbearable consciousness" was the most frequent reason for attempting suicide second to 'stop feeling pain' and third was to 'avoid an impossible situation'. The most endorsed item was "the situation was so unbearable that I had to do something and I didn't know what to do". This suggests a poverty of solutions to problems or ways of

coping. Retrospective data such as this is prone to rationalisation and cannot be accepted completely on face value. Such self-reported motives for suicide attempts may seem to illuminate causes of suicidal behaviour, but the actual decisional process is likely to evade a complete understanding because of psychological detail that is not easily recalled such as the impact of emotional states or impaired cognitive functioning. For this reason, a broader actuarial approach focusing on characteristics of populations who have an increased likelihood of suicide is more likely to increase predictability of future suicide attempts (Beautrais, Joyce & Mulder, 1997).

The theoretical positions of suicide described in this section all contribute to an understanding of the complex aetiology of adolescent suicide. Biological theories have little of importance to offer (Beautrais, 1999; Grosz et al., 1995) and so are not discussed. Psychoanalytic theory emphasises unconscious processes in the aetiology of suicide in contrast to a behavioural and social learning approach that posits that suicide is a learned and environmentally reinforced behaviour. Providing some link between these two positions, cognitive theories that emphasize the interplay of cognitive and environmental phenomena tend to have the best support from actuarial, risk factor research discussed in the chapter following.

Psychoanalytic theories. A number of psychoanalytic theories offer various explanations for suicidal ideation and suicidal intent. Originally, the Freudian view was that the suicidal individual is essentially angry or vengeful towards another who has been lost. They direct their hostility towards themselves as a form of self-punishment or self-hate. This is a manifestation of hate and aggression towards an internalised object or objects (representations of significant people, for example, a parent). The unconscious motive is to join the lost object in death. Freud postulated that suicidality was an expression of a primordial 'death instinct' or drive. This 'death instinct' has three dimensions or wishes: the wish to kill, to be killed, and the wish to die. It is hypothesised that these three wishes can all be realised in the case of suicide (Menninger 1938, cited in Jobes, 1995).

In addition, the Jungian view emphasises the individual's unconscious need for spiritual rebirth, desire for renewal, or metamorphosis. This is unconsciously motivated by a desire for a different and better life. Here the individual wishes to avoid the psychic pain being

experienced by the self through changing into a new or different self.

In a more developed theoretical proposition, the Kleinian hypothesis proposes that the suicidal individual attempts to protect their internalised 'good' objects from the Freudian death instinct manifested as an internalised 'bad' object or objects. There is one of two processes occurring. Either the individual experiences an internalised rejection of an unacceptable part of the ego by splitting it off and attacking it. This then manifests as aggression towards the self. Alternatively, in an attempt to resolve issues of separation and individuation that are too painful to endure, the suicidal person regresses, and wishes to return to a state of symbiosis with the imagined primary care giver, seeing death as symbiosis (Blanck & Blanck, 1974, cited in Jobes, 1995).

Finally, a Self-psychology perspective explains suicidality as a fragmentation of the structure of the self (Kohut & Wolf, 1978, cited in Jobes, 1995). This occurs when the individual experiences a sense of self-crumbling that is so painful that it is avoided at all costs via suicide. This is motivated by a desire to escape from aversive and painful self-awareness of failure and falling short of one's own standards or expectations. Particularly in adolescence, there is an emphasis on coping with shame and a sense of loss and lack of self-cohesion (Shreve & Kunkel, 1991, cited in Jobes, 1995). Related to this, low self-esteem, or a large disparity between the ideal-self and real-self is related to feelings of unworthiness and feelings of not deserving to live (Orbach, 1997).

A major criticism of Psychoanalytic theories is the difficulty in testing them empirically. Because of the centrality of intrapsychic or unconscious motivational states to explain suicidality the literature seldom attempts, or is able to test this theoretical position. However, the Psychoanalytic views hold some intuitive appeal, as they are consistent with the reported desire among many suicidal adolescents to end an unbearable consciousness (Kienhorst et al., 1995).

Behavioural and Social Learning theories. The behavioural view postulates that once a person makes a suicide attempt he or she crosses a behavioural "threshold", this behaviour is reinforced, and then suicidal behaviour becomes part of his or her behavioural repertoire. The suicide attempt is reached through successive approximations of self-harming behaviour. The suicidal behaviour is likely to be reinforced if a stressful

situation was ameliorated as a result, or internal states of pain are reduced (Goldston et al., 1999). Internal and environmental cues similar to the original attempt make the behaviour more probable. For example, recurring depression and feelings of hopelessness are likely to provide such cues that prompt the behaviour to re-occur. This perspective offers little explanation of the intent to die and other critical motivational phenomena that are well documented in the literature. Similarly, the notion of successive approximations of suicidal behaviour is less convincing in explaining how a suicide attempt is made in instances where there is no past self-harm or suicidal behaviour.

From a social learning perspective, suicide occurs where significant figures model suicide or suicidal behaviour. These role models are seen to gain some reward or reinforcement for suicide or suicidal behaviour. For example, suicide may be construed as a form of problem solving where reinforcers include increased attention from others, or avoidance of a problem (Bandura, 1977). Social learning also explains suicide contagion effects, where suicide in a known associate, family member or person reported in the media precipitates other suicides (Grosz et al., 1995). Indeed, there is evidence for trans-generational suicidality but the evidence for a causal link that is explained by social learning is equivocal (Laederach, Fischer, Bowen & Ladame, 1999; Pfeffer, Normandin & Kakuma, 1994).

Cognitive theories. Beck's theory of depression and suicide involves interactions between cognitive, affective and behavioural systems (Beck & Young, 1985). The fundamental etiologic factor is the learning of pervasive, erroneous, and negative cognitive constructs or beliefs. Having a cognitive focus, Beck's theory asserts that depression and suicide results primarily from the distorted perceptions of events and the negatively biased cognitive processes that result (Beck & Young, 1985).

Beck proposed that from an early age, most people develop dysfunctional *schemata*. These are defined by Haagga and Davison (1986) as "fairly stable cognitive patterns dictating the manner in which someone will interpret data from a set of situations" (1986, p. 250). Also, Beck posits that people prone to depression and suicide have developed *negative* schemata during childhood, a hypothesis partially supported by a study by Teasdale and Dent (1987). According to Beck, depression ensues when negative schema are activated by some undesirable life event or stressor. Once activated, these schemata determine how most future events are interpreted, typically into three cognitive spheres. Negatively biased

cognitions encompass negative views about (a) one-self, (b) negative interpretations of current experiences, and (c) negative views about the future (hopelessness) (Ross, Mueller, & de la Torre, 1986).

Beck and Young (1985) and Cole (1988) argue that depressed people, with the type of negative schemata described above, also hold a generalized attitude of hopelessness, which in turn spawns suicidal ideas and behaviour. Even though Beck's Cognitive Therapy is considered an efficacious therapy for depression, with results equal to drug therapy (Blackburn, Bishop, Glen, Whalley & Christie 1981; Kovacs, Rush, Beck & Hollon, 1981), criticisms are still forthcoming about his theory. The notion of schemata is often quoted as the major weakness. Beck's etiological explanation of depression is no more complex than: "cognitions precede, and account for, mood" (Bebbington, 1985). Beck provides little explanation as to how schemata are supposed to develop, and what account he does provide tends to be circular in logic. In conclusion, although Beck gives a reasonable account of the maintenance of depression and suicidal cognition, the etiological aspects of his theory is less tenable.

In an earlier theory than Beck's, Seligman (1975, cited in Power and Champion, 1986) formulated his theory of learned helplessness using laboratory studies with dogs. He observed that when dogs repeatedly underwent a stressful experience that was unavoidable, they failed to act adaptively when given the opportunity to avoid the same stressful experience at a later time. From these results, Seligman hypothesised that when people experience events that they perceive are beyond their control, they will become depressed and, or, suicidal in the following three ways. First, in the cognitive domain, they will show pessimistic expectations of future outcomes. Second, in motivation, initiation of voluntary responses will become reduced, and finally, in the emotional domain, they will experience depressed mood (Bebbington, 1985). Some evidence for learned helplessness is provided in a study by Cohen and Tennen (1985), when it was shown that depressed people demonstrated a greater preference for self-punitive responses to aggression from a partner than did normal or anxious persons.

Abramson, Seligman and Teasdale (1978) and Miller and Norman (1979) reformulated the learned helplessness model by including a cognitive theory of attributional style. Based on the constructs of *globality, stability* and *locus of causality* in the attribution of negative experiences. Globality is defined as the attitude that negative experiences are pervasive, that

is, they occur across a wide range of situations. Stability is defined as the attitude that negative experiences are chronic, that is, they will occur continually over time. Feelings of helplessness were explained by the construct of locus of causality in which people perceived the cause of events to be due to external forces beyond their control.

Another concept overlaying the other three is controllability. Bebbington (1985) describes it thus:

> It is quite possible for a subject to make internal attributions which are either controllable or otherwise - for example, lack of effort as opposed to inherent stupidity -... [further,] attributions of controllability are more likely to be made in association with internal and unstable attributions. (p. 763)

For instance, the experience of guilt was argued to arise from attributions of controllability. In conclusion, through a meta-analysis of 104 studies, Sweeney, Anderson, and Bailey (1986) found that the overwhelming majority of studies provided clear evidence for the theory of learned helplessness and attributional style. Positive results were reported irrespective of psychiatric versus college student populations, type of event about which the attribution is made, and the depression measure used.

1.4 Empirical Models

Attempts have been made to fit the empirical data into explanatory models. The most significant of these is the *typology* model, *stress-vulnerability* model, *pathway* model and particularly the *risk and resilience* model.

Typology model. In an attempt to integrate stress-vulnerability, pathway and risk models, Orbach has developed a typology based on empirical findings from each perspective (Orbach, 1997). These are summarised in Table 1.3.

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The first is a depressive-perfectionistic type, the second, impulsive-aggressive type, and the third is a disintegrative type. The literature suggests the depressive type is associated with depression, hopelessness, and substance abuse, including alcoholism. This type responds most to loss, separation, rejection and failure. The impulsive-aggressive type is associated with conduct disorder, anger and irritability and responds most often to family conflict and violence, and unresolvable problems like on-going legal issues. The

disintegrating type is associated with anxiety, panic attacks, lability and schizophrenia, and responds most to environmental instability. Supporting a typology approach, Apter and Freudenstein (2000) propose four clusters of adolescent psychiatric co-morbidity, based on the available empirical literature, that associate strongly with suicide. The clusters were 1) schizophrenia, depression and substance use, 2) substance abuse, conduct disorder and depression, 3) affective disorder, eating disorder and anxiety disorders, and 4) affective disorder, personality disorder and dissociative disorder. These types do hold intuitive appeal, as well as allow for future empirical validation. Also by proposing distinct suicidal types, this model proposes a framework that might explain some discrepant or contradictory findings in the literature.

Stress-vulnerability model. Bonner and Rich (1987) proposed that suicide attempts occur where stressful life events, such as loss, combine with structural vulnerability such as a lack of social support that results in emotional distress and then depression. This model assumes that with sufficient stressful life events and vulnerability, depression and suicide will result. This model has been successfully tested with a small clinical sample of 20 suicide attempting and 20 non-attempting adolescent inpatients matched for depression (Morano, Cisler & Lemerond, 1993). Such a model is consistent with current thinking about coping skill deficits (Aldwin, 1994; Frydenberg, 1997) that emphasise the individual's (a) perception of an environmental stressor as a challenge or a threat, (b) their belief in their ability to manage it successfully, and (c) the effectiveness of their response to it (Lazarus, 1991; Sandin, Chorot, Santed, Valiente & Joiner, 1998). If a stressor is coped with well, it will attenuate, however, if a stressor is poorly managed, it will continue or become worse. Aldwin (1994) emphasises problem-focused coping rather than emotion-focused coping as being most effective. This demarcation has been found to be empirically valid (Frydenberg, 1997). This model, or more particularly, a coping model appears to be particularly useful to understanding the moderating effect between environmental stressors and disorders such as depression and suicidal behaviour.

Pathway model. The pathway model, as described by Graber and Brooks-Gunn (1995), emphasises the additive effect of developmental changes and life events. For instance, physical, social and cognitive development is proposed to intersect with life events or life transitions. This model posits that stressful life events overtax available coping resources, which in turn, leads to suicide. In addition, periods of transition may accentuate and magnify the effect of changes and stressors at different points in time, for example, changes in school, peer or home environment during adolescence. Further, these transition points may contribute to altered life *trajectories* (Elder, 1985; Rutter, 1989, both cited in Graber & Brooks-Gunn, 1995).

Fergusson and Lynskey (1995) found support for this model. They studied a birth cohort of over 950 children annually to the age of sixteen. They found support for a linear, causal model. A pathway to suicide, beginning with childhood was observed. Childhood problems and family circumstances were causally related to increased risks of later psychopathology and personal adjustment, which in turn were related to increased rates of attempted suicide. Further, in a pathway model study spanning just six-months, Reifman & Windle (1995) found predictive factors linked together in two high school cohorts.

Depression and alcohol use separately predicted suicidal thoughts and attempts. Specifically, suicidal thoughts predicted later suicidal communications and finally suicide attempts.

With regard to depression, there is also strong evidence for the continuity of major depression from adolescence into young adulthood (Lewisohn, Rohde, Klein & Seeley, 1999). Further, this holds true for mental health problems generally. All types of mental health problems have been found to persist equally from adolescence to adulthood (Ferdinand & Verhulst, 1995). Ferdinand, Verhulst and Wiznitzer, (1995) remark "All types of problems tended to persist to a similar degree. This holds also for problems that are often regarded as typical childhood problems, such as attention problems and hyperactivity" (p680).

These studies suggest a pathway process may be relevant both in the short and longer-term, and with depression specifically. Unfortunately, however, there is little more evidence that strongly supports a pathway model. The exact influence of these proposed stages are probably more accurately determined according to their cumulative effect in increasing the probability of suicide behaviour, as proposed by the risk factor model. Indeed, these two approaches may not be mutually exclusive but instead complimentary. Further, Dieserud, Roysamb, Ekeberg and Kraft (2001) found empirical support for a pathway model that included a stress-vulnerability component that was mediated by cognitive factors such as hopelessness. Seiffge-Krenke (2000) has also demonstrated the importance of stressful events and the continuity of mental health problems. This model and the empirical data that supports it, suggest that adolescents with untreated, or ineffectively treated psychological disturbances are likely to experience similar levels and type of disturbances in adulthood.

Risk and resilience model. In contrast to the pathway model, a risk and resilience approach allows a neat comparison of risk and protective factors based on empirical estimates of their predictive value. The notion of risk factors stems from an epidemiological paradigm (Wagner, 1997). Compas, Hinden and Gerhardt (1995) give a definition that has consensus in the literature. Risk factors are "...those characteristics of the person or the environment that are associated with an increased probability of maladaptive developmental outcomes." (p. 273). Risks

are frequently expressed as odds ratios for any particular risk or protective factor. The model assumes that a quantitative accumulation of risk factors increases the total risk of the behaviour (suicide) occurring. In other words, the risks are additive, and protective factors are subtractive. Compas, Hinden and Gerhardt (1995) state that "Protective factors are hypothesised to interact with sources of risk such that they reduce the probability of negative outcomes under conditions of high risk but do not show an association with developmental outcomes under low risk" (p. 273). This model allows for quantification and prediction in terms of probability. However, at this point in time it has yet to explain specific combinations and interactions of risk, or protective factors (Beautrais, 1999). Further, other indeterminate and unquantifiable variables are excluded from probability estimates that will weaken predictive power.

Empirical support for a risk model has been strong (Beautrais, 1999) with large-scale studies furnishing illuminating results. For example, Hollis (1996) compared 284 children and adolescents exhibiting suicidal behaviour with over 3,000 controls. He found independent risk probabilities (odds ratios) for the following: depression (4.4), family discord (1.5), disturbed mother-child relationship (1.5), and familial lack of warmth (1.6). Suicide risk probabilities for having conduct problem behaviours (1.4) were also found among non-depressed suicidal adolescents.

In a comprehensive review of empirical studies investigating risk factors for all ages Beautrais (1999) used odds ratio estimates of risk factors reported in the literature. She found a clear predominance of the importance of (a) prior suicide attempt, (b) prior mental health care and (c) depressive disorders as major risk factors. Table 1.4 lists all of the risk factors reviewed, with accompanying median odds ratios. In those studies that have examined multiple risk factors, the data suggest that risk has a *cumulative* effect.

Beautrais (1999) concludes:

> Without exception, research evidence suggests the presence of mental disorder is the single strongest risk factor associated with suicidal behaviour. Three types of disorders emerge as strong predictors of suicide risk, depressive disorders, substance use disorders and antisocial behaviours.... Frequently, the risk factors

for suicidal behaviour act accumulatively so that young people with exposure to a greater number of adverse risk factors are at substantially greater risk of suicidal behaviour than those not exposed, or exposed to fewer risk factors.

Table 1.4

Odds Ratio Estimates of Risk for Suicidal Behaviour (in rank order)

Risk factors	Range of Odds Ratios	Median Odds Ratio
Prior suicide attempt 2-40 times higher with psychiatric co-morbidity (median = 9.1)	2-35	18.6
Prior mental health care 2-35 times higher with prior suicide attempt (median = 18.6)	5-42	14.4
Depressive disorders 1.5-5 times higher with impaired family relationships to 12 times higher if from abusive or violent families	2-28	11.1
Psychiatric co-morbidity	2-40	9.1
Substance use disorders 2-28 times higher with depressive disorders (median = 11.1)	2-15	6.6
Legal or disciplinary problems	5-16	5.8
Abusive or violent families	1.5-12	5.7
Antisocial behaviours 2-15 times higher with substance use disorders (median = 6.6)	3-17	4.3
Sexual orientation issues	1-13.9	3.6
Parental mental illness:	2-11	3.1
Parental separation or divorce	2-4	3.0
Antisocial / conduct / disruptive disorders twice as high with any	1.5-4	3.0

personality disorder (median = 2)		
Parental suicidal behaviour	2-5	2.5
Interpersonal losses or conflicts	2-7	2.3

While theoretically it is probable that certain risk factors in combination lead to definitive high-risk profiles for different groups, due to the low base-rate of completed suicide, such a fine-tuned understanding of specific risk combinations is unlikely to be determined comprehensively.

Similar, but opposite in effect, protective factors are personal characteristics or contextual factors that do not constitute the norm for the population under consideration, and reduce the risk of developing the disorder, or problem in question (Osborn, 1990). Specifically, a protective factor is assumed to attenuate a known risk factor. A smaller number of protective factors are thought to reduce the likelihood of suicide and attempted suicide in adolescents who have risk factors and are discussed at the end of the next chapter. These exist in mostly in the biological, cognitive and social domains. Protective factors are less well researched, and to date, no research has attempted to measure the cumulative effects of protective factors, or their subtractive interaction with risk factors (Fonagy, Steele, Steele, Higgit & Target, 1994). In particular, there is an overall paucity of literature on protective factors for suicide in adolescence.

Risk probability and resilience models have a strong empirical appeal because of their ability to quantify and combine risk factors. However, currently this offers little understanding of the interaction between risks, nor the causal pathways. Further, the risk and resilience model fails to address phenomenological data and decision-making processes. Notwithstanding, this model does provide empirical support for various other theories, even though it fails to explain the mechanisms involved.

1.5 Summary

Adolescence is a period of peak onset of mental health problems and suicide (Cotton & Jackson, 1996). Defining suicidal behaviour is complex, especially when trying to formulate operational definitions for research. This is because completed suicide lies at an end point on a continuum that includes self-harming and risk-taking behaviours. Further, there is such a significant similarity between completed suicides and suicide attempters in

terms of their behaviour and observable risk factors. The rate of suicide in developed countries has remained relatively stable over the last few decades. However, there is a notable increase in suicides in young males in Australia: 24% over the last ten years. Males are four to five times more likely than females to complete suicide, while females are three times more likely than males to attempt suicide.

Psychoanalytic theories have limited use, largely because they yield un-testable hypotheses and do not easily explain empirical findings. However, the self-psychology concept of fragmentation of the self and negative self-evaluation are consistent with findings on self-esteem and suicide risk.

Social learning theory is consistent with empirical associations between suicide and peer and family suicidality. Behaviour theory and behaviour reinforcement gives a robust explanation of suicide re-attempt, but offers little to explain the aetiology of an initial suicide attempt. Probably the most useful and empirically validated single theory is Beck's (Beck & Young, 1985) cognitive theory of depression and hopelessness . This has strong support in the empirical literature and is compatible with attributional style and learned helplessness theory, as well as psychoanalytic and social learning positions.

While no one theory appears to adequately explain the bulk of empirical findings, many different theories contribute to some aspects. Where depression and hopelessness are so central empirically, any good theory must adequately explain their role. For this reason, Beck's (Beck & Young, 1985) cognitive theory appears the most useful. However, no theory adequately explains why the majority of depressed adolescents with suicidal ideation do not make an attempt, nor do they explain adequately why the majority of those who make one attempt never re-attempt in the future.

Finally, empirical models such as pathway approaches that include life trajectory concepts provide a model that can integrate other theoretical positions with empirical findings such as risk factors. Indeed, Beautrais (1999) and Orbach (1997) agree that there is a need to develop suicide prevention approaches which address the multiple causes of suicidal behaviour, and which take account of the accumulative nature of this risk.

Chapter 2

Risk and Protective Factors for Adolescent Suicidal Behaviour

This section will review the risk and protective factors that have been associated with suicide and suicide attempts. There has been some overlap, and interchanging of the term 'risk factor' in the literature with the term *vulnerability* or *vulnerability factor* (Wagner, 1997). Wagner argues that the term *vulnerability* should be used to refer to those individuals who may hold a number of risk factors rather than be confused with the idea of risk *per se.* Risk should refer to the narrower, probabilistic conceptualisation. The following chapter will use the term risk factor to refer to this probabilistic conceptualisation. Grouped into psychological, social and other domains, key risk factors will be discussed, followed by a discussion of risk-protective factors.

2.1 Biological Risk Factors

There is clear evidence for a genetic predisposition to suicide. Findings from family, twin and adoption studies indicate a greater concordance of attempted or completed suicides (Roy, Nielsen, Rylander & Sarchiapone, 2000). These findings hold independently of depression or other psychiatric disorder. Further, molecular genetic studies have found that genetic variations that relate to serotonin synthesis are linked with suicide and attempted suicide. Indeed, Serotonergic abnormality stands out as clearly implicated in suicidal beaviour independent of depression and other psychiatric disorder (Traskman-Bendz & Mann, 2000). Specifically, abnormalities in 5-hydroxytryptamine (5-HT) have been found in suicide attempters and completers, as well as aggression. This association with aggression and its independence from other key risk factors such as depression indicate an important biological role in suicide that describes a phenomena of aggression directed towards oneself.

2.2 Psychological Factors

Cognitive factors. Hopelessness is highly predictive of completed suicide. For example, prospective studies using suicide ideation, intent and hopelessness as independent variables found strong predictability for later suicidal behaviour (Goldston et al, 2001; Weishaar & Beck, 1992). While some studies have not supported this (Cole,

1989), the bulk of more recent literature does confirm hopelessness as a risk factor (Beautrais, Joyce & Mulder, 1999a). This finding holds for both depressed and non-depressed suicidal adolescents (Kienhorst, De Wilde, Diekstra & Wolters, 1992). Also, hopelessness as a precursor to suicidality appears to also include feelings of loneliness (Joiner & Rudd, 1996).

These findings suggest that within a depressed state, hopelessness is likely to feature and significantly contribute to the desire to die. In a suicidal state, the person affected is likely to have developed a rationale to support the desire to die. Viewing one's situation as holding little prospect of change is probably a potent motivation to die. It is probable that loneliness contributes further to feelings of hopelessness, thus increasing the motivation to die, and therefore risk, but this has yet to be empirically determined.

A link has also been found between distorted styles of attribution and suicide attempts (Spirito, Overholser & Hart, 1991). However, non-suicidal adolescents with higher levels of depression have a greater maladaptive attributional style compared to less depressed suicide attempting adolescents (Summerville, Kaslow, Abbate & Cronan, 1994). This suggests that maladaptive attributional style is most likely a function of depression rather than being specific to sucidality *per se*.

A clear association between external locus of control and suicidal behaviour has been found in high school students (Pearce & Martin, 1993). However, in apparent contradiction to this, internal locus of control has also been found as a risk factor in a case controlled study of suicidal youth (Beautrais et al., 1999a). These paradoxical results might be explained in that extremes in locus of control feature in suicidality where the person either ascribes very little control over their environment (and feels hopelessness), or the converse, where the person assumes an unrealistic degree of responsibility for events they cannot control (and feels guilt). This would also be compatible with Orbach's (1997) *impulsive* and *depressive-perfectionistic* suicidal behaviour types respectively.

Poor problem solving has been implicated as a risk factor for suicide and attempted suicide. Problem solving deficits have been associated with adolescent inpatients who made suicide attempts before hospitalisation (Curry, Miller, Waugh & Anderson, 1992; Sadowski & Kelley, 1993; Summerville, Kaslow, Abbate & Cronan, 1994). However, the

temporal aspect of poor problem solving is unclear. For instance, inter-personal problem solving deficits have been found to be concomitant with, and not antecedent of depression (Schotte, Cools & Payvar, 1990). This suggests that cognitive changes that occur with depressed mood may temporarily impede certain cognitive functions. This would be consistent with the well supported notion of cognitive changes that are associated with hopelessness, helplessness and negative cognitive phenomena that Beck's cognitive theory proposes (Beck & Young, 1985). Indeed, there is evidence that cognitive changes may be inter-related. Poor problem solving is thought to contribute to feelings of hopelessness and suicide intent because of a reduced ability to find effective solutions to problems (Pollock & Williams, 1999).

Depression. Suicidal behaviour in adolescents has a clearly established link with depression, and to a lesser degree with anxiety. Depression increases the risk of suicide in the population by a factor of twenty (Harris & Barraclough, 1997), and is estimated to be present in up to 88% of all suicides (Lonnqvist, 2000). Further, Goldney, Wilson, Dal Grande, Fisher & McFarlane (2000) suggest that elimination of mood disorders would reduce suicidal ideation by up to 46%. Notwithstanding risks associated with drug and alcohol abuse, depression has been found to be the best predictor of suicidal ideation in normal populations (Andrews & Lewinsohn, 1992; De Man & Leduc, 1995). This association becomes stronger with depressed adolescent psychiatric inpatients (Robbins & Alessi, 1985). Moreover, major depression on admission that persists during admission has been shown to be most associated with subsequent suicide attempt within six months of discharge (Brent, Kolko et al., 1993). The relationship between depression and suicide appears to be very robust and is overwhelmingly supported by methodologically strong studies such as controlled, matched-pair studies of self-poisoning adolescents (Kingsbury, Hawton, Steinhardt & James, 1999; Reifman & Windle ,1995).

While depression may not be a sufficient condition for suicide, it is considered to be a necessary condition in the vast majority of suicides. It is third only to prior suicide attempt and mental health care, in predicting suicide (Beautrais, 1999). The proximal importance of depression in a suicide attempt among adolescents was confirmed by Pfeffer et al. (1993) who conducted an 8 year follow-up of inpatient suicide attempters and suicidal ideators. They found that a mood disorder close in time to a previous suicide attempt were greatest risk factors for subsequent attempt. Confirming this, and in a study

with a larger sample, the greatest risk factor for suicide attempt was again depression among both children and adolescent suicide attempters (Hollis, 1996).

With depression having such a strong proximal risk for suicide, the risk factors for depression become relevant to suicide as well. Many risk factors for depression have been relatively well researched and findings are relatively robust (Compas et al, 1995). The peak age of onset for depressive disorders is early to mid adolescence. Depression is twice as likely in female adolescents, and parental depression and chronic stressors or adversity are the most predictive environmental influences (Frost, Reinherz, Pakiz-Camras, Giaconia & Lefkowitz, 1999). Further, there is evidence for the continuity of major depression from adolescence into young adulthood (Lewisohn, Rohde, Klein & Seeley, 1999). This last finding underscores the significant role depression is likely to play in on-going risk, especially in combination with prior suicide attempt.

As well as depression, trait anxiety has been found to be associated with suicide attempts in formerly hospitalised adolescents. While having a high degree of co-occurrence with depression, anxiety becomes increasingly predictive of suicidal behaviour when in combination with more severe symptoms of depression (Goldston et al., 1999). However, this positive correlation suggests the level of risk associated with anxiety in suicide is most likely to be explained by its high frequency of co-occurrence with depression rather than contributing risk independently of depression.

Behavioural factors. *Only two recent studies have looked specifically at the link between suicidality and behaviour problems. First, Andrews and Lewinsohn (1992) found suicide attempts to be linked to disruptive behaviour disorders in older adolescents. Also, Hollis (1996) found an odds ratio of 1.4 for suicide attempt for conduct symptoms in non-depressed child and adolescent suicide attempters. Behavioural problems as risk factors for suicide also appear to cluster with other risk factors. There is evidence that adolescents with disruptive disorders who commit suicide have higher rates of substance use, family history of substance use, past suicide attempt, and family history of mood disorder (Renaud, Brent, Birmaher, Chiappetta & Bridge, 1999).*

Addictive behaviour, particularly substance abuse, and alcohol use specifically, is a robust risk factor for suicide for both adults and adolescents (De Man & Leduc, 1995). It has been found in between 25 to 50% of suicides (Murphy, 2000), and has been found to

predict suicidality in adolescents (De Wilde, Kienhorst, Diekstra & Wolters, 1994; Reifman & Windle, 1995). Moreover, Hawton and Fagg (1988) found that long-term use of hypnotics predicted completed suicide with adolescent suicide attempters. They also found that among self-poisoning adolescents, the factor most associated with eventual suicide in adulthood was substance abuse (Hawton, Fagg, Platt & Hawkins, 1993). Alcohol in particular is implicated as a causal factor in suicidal behaviour (Fombonne, 1998). While the link with canabis seems related only to its association with other risk factors such as co-morbid mental disorders (Beautrais, Joyce & Mulder, 1999b).

There is also evidence that alcohol use increases the risk of both depression and suicide attempt (Adcock, Nagy & Simpson; 1991 Andrews & Lewinsohn, 1992). Not surprisingly, there is a high level of co-occurrence of depression and substance abuse suggesting a bi-directional link. Further, there appears to be both a proximal and distal risk for substance abuse. That is, substance abuse has a strong association with social, employment, health and mental health decline which further increase risk, as well as being implicated in reducing inhibition and increasing impulsivity at the time suicide is enacted (Murphy, 2000).

Personality factors. Personality disorder, particularly *borderline* and *anti-social* types have a strong association with suicide and attempted suicide among adults (Linehan, Rizvi, Welch & Page, 2000). While less well researched, there is evidence for a similar association for adolescents. For instance, Braun-Scharm (1996) found the prevalence of personality disorders to be higher among suicidal than non-suicidal adolescent inpatients. Of these, borderline syndromes or emotionally unstable personality disorders were more frequent in the suicidal group. The common characteristics of these suicidal, personality disordered adolescents were depressive symptoms, self-harm, and alcohol and substance abuse. Other studies have found that impulsivity was associated with borderline personality disorder and previous suicide attempts (Brodsky, Malone, Ellis, Dulit & Mann, 1997). In contrast to studies with adults (Ahrens & Haug, 1996), studies of adolescents with borderline and anti-social personality disorders found that comorbidity of personality disorder with substance abuse and depression was most common with suicide and suicide attempt, rather than personality disorder alone (Runeson & Rich, 1992). This suggests the likelihood that co-morbid symptomatology accounts for this association rather than personality disorder alone. It may be that in adolescence, the development of a personality disorder increases the incidence of

depression, which in turn accounts for increased susceptibility to suicidal behaviour. If this is the case, there is a need to better understand the adolescent to adult course of personality disorder as it relates to depression and suicidal behaviour.

2.3 Social Risk Factors

Interpersonal relationships. Interpersonal relationships appear to represent both a sphere of risk for suicide when they are absent or conflictual, and protection when connections are strong, and, or positive. For instance, less social support has been found in adolescents at high risk of suicide attempt (De Wilde et al., 1994). Presumably this contributes to feelings of loneliness discussed above. Additionally, a high level of interpersonal conflict has been found among those who have previously attempted suicide (Marttunen, Aro, Henriksson & Lonnqvist, 1994). In particular, there is evidence for a link between peer bullying and suicidal ideation in high school students. Further, suicidality was found to worsen when there was an additional lack of social support (Rigby & Slee, 1999). With regard to the impact of problematic intimate relationships, there appears to be contradictory findings in the literature. There is evidence for both interpersonal separations and conflicts being precipitants to completed suicides (Marttunen, Aro & Lonnqvist, 1993), which contrasts with earlier studies that found such relationships problems rarely preceded attempts or completed suicide among adolescent suicide attempters (Hawton & Fagg, 1988). This suggests the interplay of some other moderating variable that is yet fully understood.

Family factors. There are a number of family factors that have been associated with suicide attempts, completed suicide and suicidal ideation. These include family disruption (De Wilde et al., 1994), family dysfunction (Martin, Rozanes, Pearce & Allison, 1995), being without a father (Andrews & Lewinsohn, 1992), critical, uncaring and overprotective parents (Allison, Pearce, Martin, Miller & Long, 1995), parental rejection (Klimes-Dougan et al., 1999) and affectionless control (Martin & Waite, 1994), lack of family or parental support (Marttunen et al., 1993; Morano et al., 1993; Kjelsberg, Neegaard & Dahl, 1994), lack of parental affection (Pearce, Martin & Wood, 1995), and a lack of warmth in the family (Hollis, 1996). Unfortunately, retrospective methodologies employed in most studies mean conclusions can not be drawn about whether these factors preceded, or were subsequent to, suicidal behaviour.

In an extensive review of empirical studies of family risk factors, Wagner (1997) concluded that a family history of physical or sexual abuse was the most consistent risk factor for suicide and suicidal symptoms. Other factors such as poor child-parent communication, loss of caregiver and psychopathology in first-degree relatives seemed to be significant. He was cautious about conclusions drawn from the research to date because of temporal sampling problems and approaches that focused exclusively on single risk factors, rather than specific combinations.

Additionally, there is strong evidence for trans-generational suicidality that suggests a social learning effect. In a controlled study, Brent and colleagues (Brent, Bridge, Johnson & Connolly, 1996) found suicide attempts and completed suicide were transmitted between generations independently of other risk factors such as depression or other psychological disorders. While suicide in first degree relatives is not linked, more first-degree relatives have been found to have anti-social personality disorder, aggressive behaviour and substance abuse suggesting a secondary influence of these factors (Laederach et al., 1999; Pfeffer et al., 1994). In conclusion, even though there are methodological shortcomings, family factors are implicated as risk factors for suicide in adolescents. Many of these center around disturbed family relationships, potential family stressors and social learning from other family members.

2.4 Other Risk Factors

Gender. While female adolescents report more suicidal ideation and depression than males (Allison, Roeger, Martin & Keeves, 2001), the most commonly cited reason for the higher male suicide mortality rate has been either choice of or more lethal means of suicide (Tiller et al., 1997). This contrasts with females who more frequently use less lethal means [redacted] (Hawton et al., 1982), but who have a higher incidence of suicide attempt (Adcock, et al., 1991). An Australian study of normal adolescents found gender differences in coping with problems that have implications for suicide. Females were found to cope by seeking social support, hoping for the best, or wishful thinking more than males who tended to solve problems by aggression or keeping the problem private (Frydenberg and Lewis, 1991). These differences are consistent with clinical impressions that males frequently keep problems to themselves or use aggression

to solve problems, while females may use a suicide attempt as a dysfunctional means of seeking help for problems (Orbach, 1997).

Significant life events. On-going adverse life circumstances and acute stressors have demonstrated associations with suicide and suicide attempt (Sandin et al., 1998). For instance, in a national study of 53 suicides in Finland (Marttunen et al., 1993) it was estimated that over two-thirds of completed suicides had precipitant stressors within one month prior to the attempt, with half having a precipitant within 24 hours. Interpersonal separations and conflicts being the most often reported. This suggests a significant role of environmental stressors close in time to the suicidal act. In support of this, Beautrais et al. (1997) found two-thirds of adolescents who attempted suicide were able to nominate a precipitant to their attempt. In order of frequency, relationship breakdowns, interpersonal conflicts, and financial difficulties were the most common precipitants reported. However, the fact that these suicide attempters are able to nominate a recent significant life event does not necessarily suggest it as having a causal link to the suicide attempt.

Other life events such as developmental maturation are also associated with increased risk. That is, rates of suicide and co-morbidity factors such as depression increase with age. For instance, Brent and colleagues found that suicidal risk and intention prior to suicide attempt, increased with age in both male and female adolescents (Brent, Baugher, Bridge, Chen & Chiapetta, 1999). They suggest that increasing age brings greater cognitive maturity that may make decisions about suicide completion less equivocal. Other developmentally related life events are also associated with increased risk of suicide attempts in high school students. These include difficulties with school adjustment, school failure, and a high frequency of sexual intercourse (Adcock et al., 1991; De Wilde, Kienhorst, Diekstra & Wolters, 1992; Puskar & Lamb, 1991).

Finally, acute stressful life events, or chronic stressors are likely to have a detrimental impact on other risk factors such as psychiatric symptomatology. This relationship has been associated with a proclivity by the effected adolescent to withdraw as a means of coping, which would likely exacerbate any suicidal phenomena (Seiffge-Krenke, 2000).

Van Heeringen, Hawton and Williams (2000) have attempted to synthesize current empirical findings and theoretical positions. They emphasise the importance of a reciprocal relationship between environmental stressors and the adolescent's response to

the stressor. They suggest that such a reciprocal interaction is mediated, in part by genetic and temperamental sensitivity to stress and perceptual and cognitive processes that amplify the subjective experience of the stressor and may potentiate cognitive tendency towards suicidal ideation. The interaction between significant life events and other risk factors warrants further investigation, and is likely to provide an important understanding of overall risk. Nonetheless, the effect of suicide contagion, loss, abuse and assault are particular life events that are worthy of special interest, and the literature is yet to shed much light on interactions with other risk factors. For this reason, these three life events in particular are discussed below.

The contagion effects of familial suicide have already been discussed above. However, suicide attempt by a friend is a well established predictor of future suicide attempt in adolescents (Laederach et al., 1999; Lewinsohn, Rohde & Seeley, 1994; Yoder 1999). There is also evidence of a relationship between suicide and media reports and television portrayals of suicide (Martin, 1996a), particularly with celebrities and music performers (Martin, 1998; Stack, 1993). This suggests adolescents who are, or are prone to be, suicidal become more motivated to attempt suicide when exposed to examples of successful suicide. The exact nature of this is phenomenon is unclear, but suggests that friends and celebrities may be idealised and used as role models for the suicidal adolescent. This contagion effect may also link with loss. The initial suicide may be both modelled behaviour, and may also be a source of unbearable feelings of loss.

Loss has been hypothesised to be a significant risk factor and precipitant of adolescent suicide. For instance, the death of a relative has been associated with subsequent suicide attempt (Brent et al., 1993). In fact, loss, in combination with low family support, has been found to be the best predictor of re-attempt (Morano et al., 1993). Further, poorer parental support appears to increase the impact of interpersonal separations on adolescents who are most likely to attempt suicide (Marttunen et al., 1993). This suggests the importance of social support in attenuating the effects of loss. A childhood history of loss, and recent loss have been well established as risk factors for depression. It likely that loss is both a common precipitant for depression, and concomitantly suicide attempt.

Finally, a number of studies have shown links between different forms of abuse and assault and suicidal behaviour (Brent, Baugher, Bridge, Chen & Chiappetta, 1999; Laederach et al., 1999; Yoder, 1999). For example, child abuse or neglect has been found

to be six times higher in suicide attempters compared to controls (Deykin, Alpert & McNamarra, 1985), and parental verbal abuse has been associated with completed suicide in adolescent psychiatric inpatients (Kjelsberg et al., 1994). Further, it has been found that sexual abuse from peers in high school students increases the risk of suicide attempts by six times (Martin, 1996). In a related study, Bagley, Bolitho and Bertrand (1995) found 13% of females with frequent, unwanted sexual contact had more suicidal ideation and made more than 2 suicide attempts in the previous 6 months, and 33% of boys with similar suicide histories reported experiencing frequent sexual assault. Similar results have also been found in clinical samples (De Wilde et al., 1992, 1994; Shaunesey, Cohen, Plummer and Berman, 1993).

Co-morbidity of psychological disorder. A clear link between suicide and identifiable mental disorders is well established (Marttunen & Pelkonen, 2000; Shaffer, Garland, Gould, Fisher & Trautman, 1988). Adolescent suicide ideators and attempters have been found to have significantly greater psychiatric morbidity and co-morbidity than non-suicidal depressed adolescents (Sawyer et al., 2000). This indicates the impact of psychological disturbance in general (Wetzler et al., 1996), second to major depression, schizophrenia and bi-polar disorder feature prominently in suicide attempts (Hawton & Fagg, 1988; Lewinsohn, Klein & Seeley, 1995). In addition, in a 14 year longitudinal study of community adolescents, Reinherz and colleagues (1995) found that early onset of psychological disorders by age 14 significantly increased the risk of suicidal ideation 1 year later and suicide attempts by age 18.

Not surprisingly, involvement at a mental health service is also strongly associated with suicide attempt, with suicide attempt rates among adolescent psychiatric in-patients being higher than non-psychiatric populations. Five years after mental health service contact, a completed suicide rate of 1% for first-time attempters and 4% for repeat attempters has been reported (Kotila & Lonnqvist, 1987). Furthermore, in a prospective study of hospitalised adolescents, Goldston et al. (1999) found that 1 in 4 adolescents attempted suicide within the first 5 years of discharge from a mental health service. Of this group, 4% of adolescents who had no prior history of suicide made an attempt within six months of discharge. Supporting this finding, Brinkman-Sull, Overholser and Silverman (2000) found that high levels of hopelessness and persistent depressive symptoms during hospitalisation were more predictive of post-hostipalisation suicide attempt (at 18 months) than was a history of pre-admission suicide attempts. However, this finding

appears to be specific to adolescents. Pirkis, Burgess and Jolley (2001) found that among adults attending a mental health service, there appeared to be few differences in individual or treatment characteristics between those who suicide and those who do not.

Suicidal behaviour. Prior suicide attempt has repeatedly been found to be one of the most predictive factors in completed suicide (Marttunen & Pelkonen, 2000). Indeed, evidence consistently suggests that medically serious suicide attempters and completed suicides have a high level of overlap in relation to risk factor profiles such as psychological disorder and previous suicide attempt. Beautrais (2001a) concludes that the "risk factors and life processes that lead to suicide are similarly evident for those making serious suicide attempts." Further, the longevity of the risk from previous suicide attempt appears to be great, and as long as 14 years (Suokas, Suominen, Isoetsa, Ostamo & Lonnqvist, 2001). Probabilistically, attempters are up to thirty-five times more likely to re-attempt than those with no previous attempt (Beautrais, 1999).) In fact, the closer the resemblance of attempted suicide to completed suicide, the greater is the risk of adolescents later killing themselves (Pallis, Gibbons and Pierce, 1984). This strong predictive link holds more broadly, with suicidal ideation (Pirkis et al., 2000), suicide plans and threats, and deliberate self-harm (Peirce & Martin, 1994). Moreover, in combination with repeat attempts, depressive symptoms and trait anxiety increase the strength of this association (Goldston et al., 1996).

Among hospitalised adolescent suicide attempters, re-attempt rates as high as 9% have been found within 3 years (Goldacre & Hawton, 1985), and 10% re-attempt rate at 3 months (Spirito et al., 1992). Further, a 3.5% completed suicide rate has been reported after 8.5 years among adolescents who present clinically with suicidal behaviour (Curran, Fitzgerald & Greene, 1999), and a 13% completion rate, 5 years post-discharge (Johnsson, Ojehagen & Traskman-Bendz, 1996). Interestingly, non-compliance with post-hospitalisation treatment seems not to be predictive of subsequent attempt (King, et al., 1995). It appears that the motivation to die remains, or possibly increases, for a significant proportion of attempters following an attempt, thus elevating them to a higher level of risk. What process accounts for either an increased or decreased risk following an attempt remains unclear. Change in motivation following an unsuccessful suicide attempt would be a useful course of enquiry, particularly to determine whether attitudes about the first attempt, or events surrounding it, play any role.

2.5 Protective Factors

Rutter Certainly the literature on protective factors is modest in comparison to that on risk factors, and little is known about how risk and protective factors interact (Grosz et al., 1995). The complex interaction between both divergent and overlapping risk and protective factors has yet to be fully grappled with. At this stage, the literature offers little in terms of hypotheses about important interactions with the exception of those discussed above, such as depression, social supports and life events, such as loss. However, what is known will be reviewed below.

Psycho-biological protective factors. Positive temperament has a robust association with resilience in non-clinical populations of adolescents who have been found to be at risk of suicide (Resnick et al., 1997; Smith & Prior, 1995). In addition, higher intelligence (and school success) is associated with adolescent males who respond flexibly, rather than rigidly to frustrating, stressful and changing situations (Fregusson & Lynskey, 1996; Robins, John, Caspi, Moffit & Stouthamer-Loeber, 1996). Further, self-understanding (Beardslee, 1989), commitment to relationships and psychological separation and individuation from parents accounted for more resilient outcomes, in a two-and-a-half year prospective study of adolescents with parents with serious affective and other psychiatric disorders (Beardslee & Podorefsky, 1988). These factors suggest that individuals with psychological resources that allow more flexible, and therefore adaptive, coping responses are more resilient that those with fewer such resources.

Cognitive protective factors: coping styles. As described in section 1.4, coping skills are thought to be important moderators in the management of stressors. Such stressors would include risk factors such as mental health problems, but particularly life events and social risk factors such as interpersonal and family risk factors. A number of studies are beginning to show empirical support for coping as a protective factor. Important associations between different coping styles and risk factors are emerging. These include the protective value of interpersonal engagement coping and problem-focussed coping with internalising and externalising problems (Achenbach, 1991; Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001). Obversely, disengagement and emotion focussed coping is associated with higher levels of symptomatology (Compas et al., 2001). In particular, problem solving, cognitive

restructuring and positive reappraisal of the stressor were most clearly related to better outcomes. This supports the stress-vulnerability model described in section 1.4.

Consistent with this research, adolescents with suicidal ideation and suicidal behaviours have been found to use emotional coping strategies more than problem solving strategies (Compas, Malcarne & Fondacaro, 1988; Puskar, Hoover & Miewald, 1992). This would suggest that this type of non-productive coping, including social withdrawl, possibly contributes to the development of depression in the face of stressful circumstances, which in turn leads to suicidal thoughts and behaviours. Further supporting this finding, help-seeking as a problem solving strategy, has been negatively associated with completed suicide in nearly 2000 adolescent psychiatric inpatients (Kjelsberg, Neegaard & Dahl, 1994). Not surprisingly, higher levels of suicidal ideation have been shown to lead to lower levels of help-seeking intentions for suicidal thoughts (Carlton & Deane, 2000).

Further, non-productive coping such as emotion-focussed approaches are likely to be more common where an individual experiences an inability to regulate extremes in emotional coping. A preference for this type of approach may even suggest that an individual's emotional states are so unbearable, as in the case of suicidal ideation, that they focus on trying to relieve their mental state as a matter of priority.

It is particularly interesting that productive coping appears less amenable to change than non-productive coping. The few intervention studies done that attempt to increase productive coping, have consistently shown reduced non-productive coping instead (Cunningham, Brandon & Frydenberg, 1999; Cotta, 1999). This finding implies that non-productive coping may lead to a continuance, or exacerbation of a stressor. Therefore, when productive, and effective coping strategies are used, the stressor abates and so coping no longer needs to occur.

Social protective factors. A significant proportion of suicide protective factor research emphasises the importance of adolescent's perceptions of social relationships. For instance, family cohesion, school connectedness and friendship networks have been found to have robust associations with resilience in non-clinical populations of adolescents who have been found to be at risk of suicide (Resnick et al., 1997; Rubenstein, Heeren, Housman, Rubin & Stechler, 1989; Smith & Prior, 1995).

The only other protective factors identified have come from studies that have examined resilience to other psychological, social and health risks. However, similar types of protective factors have emerged. For example, in children from maltreating families, supportive extended social networks and a motivation to be different from their parents, has been found to contribute towards general resiliency in late adolescence. (Herrenkohl, Herrenkohl & Egolf, 1994). Further, feeling emotionally close to their fathers and mothers has shown protective value against pubertal and school change, and family change respectively, in depressed adolescents (Compas et al., 1995). Additionally, less affiliation with delinquent peers has also been found to be associated with adolescents more resilient to behaviour problems (Fregusson & Lynskey, 1996). Finally, in a large study of 13,000 socially disadvantaged children, Osborn (1990) found that positive, supportive and interested parents were an important protective factor.

These few studies strongly suggest the important role of social cohesion, or connection and supportive relationships in resilience to risk. However, still more research is needed to fully understand the protective mechanisms that occur to reduce the risk of suicide and other adverse outcomes. Nonetheless, the fact that social and family connections appear important would suggest that perceptions of being wanted and valued, and having an expectation of being easily able to seek help for problems would probably, in part, account for these findings. Overall, perceiving oneself as being capable of coping with, or solving problems independently, or being able to receive assistance or support are important ingredients to being able to endure stressful, aversive or threatening situations, and therefore be resilient.

2.6 Summary

It is clear that many risk factors such as behaviour disorders, substance abuse, personality disorder and psychiatric disorder have a tendency to cluster together, and often co-occur with depression (Marttunen & Pelkonen, 2000). Also tending to cluster with depression is a history of suicidality in the family or social network, interpersonal loss or separation, sexual or physical abuse, family dysfunction and poor family cohesion. However, and more specifically, the literature is consistent with the finding that, aside from prior suicide attempt, depression (with hopelessness) pose the greatest risk for suicide attempt. In a suicidal state, the person is likely to have developed a rationale to support the desire to die, possibly based on a negative cognitive schema. Viewing one's situation as having

little prospect of change is probably potent motivation to no longer live, as suggested by the link to problem solving deficits and a tendency to emotional or aggressive rather than problem oriented coping. Other factors such as previous suicide attempt, psychological disorders including substance abuse, and behavioural problems also contribute to an increased probability of suicidal behaviours. This empirical picture is congruent with most of the theories described in Chapter 1, but Beck' cognitive theory, although narrow in its focus, accounts for the empirical findings best. Protective factors are less well understood, and sometimes reflect the converse of risk factors, such as strong family and social cohesion, and positive parental relationships.

The following description of predisposing, precipitating, perpetuating and protective factors integrates empirical risk factor research, risk models and theories of suicide to summarize a typical suicidal behaviour scenario. To begin with, predisposing factors include biological factors such as temperament, childhood of loss, abuse, rejection or similar, cognitive styles that are prone to attribution error and hopelessness. Precipitating factors include stressful life events such as loss, trauma or major life transition, and depression, and, or other psychological disorders. At this point, the individual experiences psychic pain and a concomitant tendency to cognitively distort judgments about themselves, their environment and future events. With influences such as alcohol or substance abuse that may cause *dis*-inhibition, the individual psychologically crosses a threshold to be at a decisional position of wishing to die, possibly due to previously reinforced self-harming. An event impacts on the individual such as loss or acute stress giving rise to the desire, and intention to die. This is done either passively by exposing oneself to high-risk situations, or actively by lethal self-harm. In the event of an unsuccessful attempt, perpetuating factors include reinforcement of self-harming, or other suicidal behaviour, by social or psychological rewards. This then increases the probability of a repeat attempt in the future. Protective factors include social supports, feelings of belonging, effective coping and problem-solving skills.

Chapter 3

Interventions for High Risk Adolescents

Due to the low base rate of suicide within the normal population, intervention efforts have largely focussed on high-risk groups, particularly those exhibiting suicidal behaviour (Spirito, 1996). Unfortunately, there is a surprising dearth of studies on intervention programs. Notwithstanding, treatment approaches for suicidal adolescents are being described and espoused despite the lack of any evidence for their efficacy in preventing suicide (Aronson & Scheidlinger, 1995; Garland et al., 1989; Kernberg, 1994; Silverman & Felner, 1995; Trautman, 1995).

Further, a handful of studies have trialed the efficacy of interventions aimed specifically at modifying suicidal behaviours without demonstrating significant effects (Goldney, 2002). For example, outreach care showed no significant reduction at all (Cotgrove, Zirinsky, Black & Weston, 1995; Hawton et al., 1998), as did supportive brief admissions aimed at engaging the adolescent to discuss their suicidal behaviour (Van Der Sande et al., 1997). Further, results from preventative school, curricula-based suicide interventions indicate no benefit, or even harmful effects (Ploeg et al., 1996), and that previous suicide-attempting adolescents were not influenced in their attitudes about suicide and help-seeking (Shaffer et al., 1990). In fact, there was even some evidence that suicide attempters became distressed by such programs.

In summary, the efforts to reduce suicide re-attempts have yielded little benefit, and compliance with follow-up interventions is poor. This suggests that interventions aimed at reducing more distal risk factors, rather than suicidal behaviour itself may be more effective in reducing subsequent re-attempt rates. The following interventions, and therapeutic modalities, have been selected for review because of the evidence for their efficacy or promise in reducing some of the major risk factors for adolescent suicide.

3.1 Family Interventions

School-based parent education programs aimed at improving communication skills between parents and adolescents have shown effectiveness in reducing some distal risk factors (Toumourou & Gregg, 2002). Further, family therapy approaches in treating

depression in suicidal adolescents are thought to show some promise (Rotheram-Borus et al., 1994), but have been found to be less effective than cognitive behavioural therapy (Brent et al., 1997). Some studies have developed family interventions for suicide attempting adolescents based on behavioural methods, but unfortunately have not been evaluated (Kerfoot et al., 1995). Indeed, more generally, reviews of the literature conclude that family therapy has yet to show evidence of efficacy in treating important risk factors in adolescents, such as depression, in adolescents (Harrington, Whittaker and Shoebridge, 1998).

3.2 Cognitive and Behavioural Treatments

Only one randomised controlled evaluation has focussed on reducing suicide attempts *per se* using cognitive-behavioural methods. While suicide repetition rates reduced in the short-term these failed to endure past 18 months (Salkovskis, Atha & Storer, 1990). Nonetheless, there is clear support for cognitive-behavioural approaches in the treatment of depression in adolescents in both short and long-term studies (Harrington, Whittaker, Shoebridge & Campbell, 1998; Reinecke, Ryan & DuBois, 1998). This also appears to be a more robust intervention for more complex and treatment resistant patients (Brent et al., 1998).

For example, in a randomised trial involving 150 high-risk adolescents, a 32 hour group cognitive behavioural therapy targeting mood management, social and communication skills and conflict resolution has been found to reduce depression in only 8 weeks (Clarke et al., 1999). Additionally, a randomised controlled evaluation of cognitive behavioural group therapy found significant effects in increasing anger management skills in a 2 week, 4 session format (Snyder, Kymissis & Kessler, 1999) and a once weekly, 10 week format (Kellner & Bry, 1999). Similarly, social anxiety symptoms have been effectively treated for up to 12 months in female adolescents in a randomised controlled study that involved 16 weekly sessions (total of 24 hours) of cognitive behavioural therapy (Hayward et al., 2000).

A further, non-randomised controlled studies have shown some effect in reducing aggressive behaviour and increasing self-control (Etscheidt, 1991), and in increasing assertiveness (Thompson, Bundy & Wolfe, 1996). Finally, Rotheram-Borus et al. (1994) describe a brief cognitive-behavioural program for adolescent suicide attempters and their families that aimed to enhance family atmosphere, teach problem solving skills and shift the families understanding of the problem. Although reportedly promising, there has been no evaluation of its efficacy.

In conclusion, there is good evidence from randomised controlled studies with reasonable samples sizes that group-based cognitive behavioural therapy can reduce depression, anxiety and anger in the medium and long-term. Effects with aggressive adolescents and aggressive behaviour appear more treatment resistant but this still requires further exploration through evaluations with randomised controls and large sample sizes.

3.3 Problem Solving and Coping Skills Training

The number of randomised controlled studies that have attempted to determine the efficacy of problem solving interventions with adult suicide attempters is greater than those of adolescents (Rudd et al., 1996). The adult interventions applied included home-based task focused social work (Gibbons, Butler, Urwin & Gibbons, 1978), outpatient problem orientated counselling (Hawton et al., 1987), home-based cognitive behavioural problem solving (Salkovski, Atha & Storer, 1990) and interpersonal problem solving skills training (McLeavey, Daly, Ludgate & Murray, 1994). While all of these studies reduced suicide re-attempt rate after 12 months, these trends failed to reach statistical significance due to small sample sizes in three of the four studies (Hawton et al., 1998). Interestingly, in the largest of these studies with 200 in the experimental group (Gibbons et al., 1978), those patients excluded from the study on the basis of psychiatric problems had higher repeat rates. This suggests that psychological disorder may need to be addressed simultaneously to increase the efficacy of any intervention.

There are only two randomised controlled study with adolescents on the effectiveness of a problem solving intervention. The first study by Rudd et al. (1996), involved a 2 week full-time, day program which aimed at increasing interpersonal problem-solving skills. While improvements were observed in suicidal ideation, depression and problem solving, these improvements were no different from controls who received treatment as usual. The second was a randomised controlled study of self-poisoning adolescents. Harrington and colleagues (Harrington et al., 1998) evaluated a 4 session, in-home family problem-solving program. The program was effective in reducing suicidal ideation in adolescents without major depression. This finding suggests that untreated depression may inhibit the efficacy of interventions aimed at improving problem solving, and so, may need to be treated concurrently. Clearly, the evidence for problem solving interventions is not as strong as for cognitive behavioural therapy, but what has been investigated does suggest some potential.

3.4 Wilderness Adventure Therapy

Wilderness adventure therapy is discussed here for two reasons. First, because it has been

proposed as an effective modality within which to apply cognitive behavioural therapies and teach problem solving skills (Crisp & O'Donnell, 1998b). Second, because of the documented benefits in the literature about treatment effects with a range of psychological disorders discussed below.

As this approach is novel and lesser known, some operational definitions are required. Wilderness Adventure Therapy is a combination of *wilderness therapy* (Davis-Berman & Berman, 1994a) and *adventure therapy* (Gass, 1993). Wilderness therapy utilises the application of modified group therapy principles in overnight, expedition-based interventions in isolated natural areas. A team of therapists lead the client group through physically challenging terrain using one or more expedition modalities such as back-packing, rafting or cross-country skiing. Emphasis is on the development of problem solving, interpersonal and coping skills where the clients are reliant on the group in order to adapt to basic living and travelling conditions (Davis-Berman & Berman, 1994a). Similar in therapeutic principles, adventure therapy is the presentation of problem-solving tasks to a group with the aim of developing communication and problem-solving skills, trust, responsibility and social skills (Gass, 1993). This usually occurs over a period of hours, or a day, and may include ropes and initiative courses, rock climbing and abseiling, caving. Therapeutic models include cognitive-behavioural, systemic and strategic ones (Crisp, 1998). Central to both of these intervention formats is the manipulation of the perception of different types and levels of risk or challenge, and the requirement of interpersonal co-operation to complete the task or activity (Davis-Berman & Berman, 1994a; Gass, 1993).

Due to the difficulty conducting research on such an intervention, empirical studies most often suffer methodological shortcomings. With few exceptions (Berman & Anton, 1988; Davis-Berman & Berman, 1989), controlled clinical trials have not been attempted. However, some illuminating research has been reported. For instance, a meta-analysis of 99 studies of outdoor adventure programs for adolescents (Cason & Gillis, 1994) found variable but consistent support for the effectiveness of outdoor adventure programs with a range of adolescent populations, including clinical and delinquent groups. With clinical populations, controlled studies suggest positive treatment effects. For example, a reduction of mental health and behavioural symptoms and a shift from external to internal locus of control occurred after a 7 day wilderness therapy expedition with inpatient adolescents (Berman & Anton, 1988). Similarly, outpatients also showed the same

changes, as well as improvements in self-efficacy and self-esteem at 2 year follow-up, after a 10 to 13 day wilderness therapy expeditions (Davis-Berman & Berman, 1989, 1994b). Further, in a randomised control study of adolescent in-patients, Witman (1987) found significant increases in trust and cooperation following 5 hours of hospital-based adventure therapy. Co-operative behaviours in a sample of seriously emotionally disturbed adolescents were found to increase following 3 day wilderness adventure therapy (Sachs and Miller, 1992). Similarly, Gillis and Simpson (1991) found reductions in psychiatric and behavioural symptoms and increases in self-esteem, and self, peer and staff ratings of behaviour in a 16 week wilderness adventure therapy program for delinquents. Finally, Marsh and Richards (1985) found improved academic motivation and performance following a six-week outdoor program in underachieving school students. This last result suggests broader motivational changes and effects on future expectancy of success. In the context of no significant results for interventions that have targeted suicidal behaviour in adolescents, the potential therapeutic efficacy of combining a broad-based approach such as wilderness adventure therapy with a more focussed (and validated) intervention such as cognitive-behavioural therapy seem substantial. However, no study has attempted to examine the outcomes of such an approach to date.

The empirical support for treatment effects from wilderness and adventure therapy is weak because of the inadequacy of most outcome studies. However, what has been studied suggests a range of generally positive outcomes. The potential benefits in the form of problem solving skills training appear obvious, and warrant investigation. This is especially so in regard to social problem solving and help-seeking. Positive effects on mood, affective states like anxiety, and mental health symptoms also have some support. Finally, there is reported anecdotal evidence that suggests this approach holds a high appeal four adolescents who may be reluctant to engage in other treatments (Crisp & O'Donnell, 1998a), and therefore may aid treatment compliance.

3.5 Clinical Program-Based Group Therapy Approaches

There is some evidence that day treatment is an effective treatment modality with children in reducing emotional and behavioural problems (Auerbach, Nixon, Forrest, Gooley & Gemke, 1999; Grizenko & Sayegh, 1990; Grizenko, Sayegh & Papineau, 1994), but only a few studies have been undertaken with adolescents. The is only one study reported with adolescent self-harmers, which has shown a trend in reducing repeated self-harm (Wood,

Trainor, Rothwell, Moore & Harrington, 2001). Nonetheless, what has been reported shows that intensive group-based, day program treatments can reduce emotional and behavioural problems (Milin, Coupland, Walker, & Fisher-Bloom, 2000), and particularly depression (Blackman, Pitcher & Rauch, 1986).

These approaches have typically integrated modular group therapies into a milieu-based treatment approach. Such modules have included anger management programs (Kellner & Bry, 1999), cognitive-behavioural group therapy, and wilderness adventure therapy (Crisp et al., 2000). The integration of a range of treatment modalities is argued to have an additive effect in addressing a broad range of needs simultaneously (Blackman, Pitcher & Rauch, 1986). This is also consistent with the need to treat risk factors like depression and problem solving skill deficits concurrently, in addition to simultaneously enhancing protective factors such as social connection and effective coping skills. The therapeutic benefits of group and milieu based therapies has been well documented to include the installation of hope and social skill development (Yalom, 1985). This suggests that group therapies are an ideal format to learn relevant skills for high-risk adolescents such as help-seeking. Finally, the format of treatment in a day-program setting appears to appeal to adolescents who typically show poor attendance rates (Orchard & MacLeod, 1990).

3.6 Summary

Evidence for interventions for suicide risk factors have shown that cognitive behavioural therapies are effective at reducing depression, and show promise with addressing other needs such as social and problem solving skills, and management of intense affect such as anger and anxiety. Problem solving training approaches have shown less evidence of benefit but appear promising. Family based interventions show less efficacy in reducing depression than cognitive behavioural therapy and may be of limited value in reducing risk factors in the long-term, especially as adolescents become older over time. Wilderness adventure therapy shows some tentative evidence in treating clinical populations for a range of mental health and behavioural problems. Additionally, because of its eclectic approach, wilderness adventure therapy appears to incorporate many if not most elements of other treatments including problem solving, cognitive restructuring, social skill development and management of intense affect. Finally, group-based day treatments appear to provide an appropriate format for an integrated treatment with all of these approaches. It is thought this may combine to have additive effects beyond the

modular treatments themselves.

3.7 Future Research

The bulk of research in the field is limited by studies that are retrospective, involve small sample sizes and are not randomised nor controlled. Studies which follow-up subjects for more than 12 months are rare. Risk factor research has generated a large quantity of studies but most of these lack depth as they fail to control for depression when exploring other variables, nor do they use designs that allow for the interpretation of the interaction between factors. If this were so, the nature of the interaction between risk factors and protective factors would be better understood. Additionally, with such a low base rate, suicide studies require large sample sizes, which add to the difficulty in conducting prospective studies (Goldney, 1998). By comparison with risk factor research, intervention studies are few and poor in design (Burns & Patton, 2000). However, some robust findings are beginning to come through, such as with cognitive behavioural therapy. Theoretically, suicidal phenomenon is complex and difficult to postulate about. Developments at this stage have only been made in terms of empirically derived models. While these are not necessarily inconsistent with earlier theories, the links are seldom made in the literature.

Spirito (1996) notes the difficulty in conducting rigorously controlled studies into risk-factor based interventions with difficult to engage populations. He suggests that research will always be hampered for this reason and that research designs needs to take account of the inherent difficulty in collecting data. Specifically, quasi-experimental designed prospective studies without adequate control groups may be the most optimal methodology achievable. Additionally, identification of high-risk periods have been neglected in most follow-up studies, but need to be considered. Similarly, and in relation to coping research, Compas et al.(2001) call for future studies that (a) take a clinical (rather than laboratory focus), (b) links coping styles to psychopathology, (c) uses prospective designs that uses measures of both coping and mental health, (d) links theory to intervention evaluation. This review suggests that there is evidence of successful intervention with many of the risk factors for suicide. What remains outstanding is the long-term, prospective evaluation of an intervention that can reduce risk factors in the long-term in groups that present with high numbers of these risk factors.

Kienhorst et al. (1992) sees three aims of intervention. First, attack any problematic life situations through treating possible traumatic experiences such as past abuse, family breakdowns, or school failure. Second, address cognitive styles, particularly hopelessness, and third improve problem solving and, or, coping strategies, particularly changing 'withdrawal' reactions to stresses to 'help-seeking'. Lastly, a significant obstacle to any form of intervention is non-compliance with post-attempt treatment (Spirito, Plummer, Gispert, Levy, Kurkjian et al., 1992; Trautman, Stewart & Morishima, 1993; Woodard & Zimmerman, 1995). Indeed, many intervention studies have targeted treatment compliance as a risk-reducing outcome (Hawton et al., 1990). Certainly, compliance of adolescents is reportedly poor, ranging from 40 to 60 percent who either do not attend, or who only attend the first session (Kazdin, 1993). While this phenomena raises the difficulty of engaging any adolescent in treatment, the consequences may be particularly concerning in the case of suicide attempt.

Key research needs. It is suggested that high-risk groups should be the target of future intervention approaches (Spirito et al., 1989). Because of methodological difficulties in validating interventions that reduce attempted or completed suicide (Goldney, 2000), future interventions need to target risk factors, be more intensive, engaging and attempt to address multiple risk factors simultaneously.

Intervention approaches should be aimed at high risk groups who present with clustering of known risk factors. As follow-up and outreach approaches have made no difference to re-attempt rate (Hawton et al, 1998), this suggests that interventions need to be more intensive and treat a broad range of risk factors simultaneously. Treatment compliance must be one of the priority aims of any intervention. Group based treatments for depression and anger problems have been found to be effective along with innovative approaches that appear to engage adolescents such as wilderness adventure therapy.

Group-based day programs have been found to engage marginalised adolescents and show some effectiveness in addressing behavioural and social problems such as educational re-integration and other risk factors for suicide (Milin, Coupland, Walker, & Fisher-Bloom, 2000). This approach would appear to have the advantage of treating co-morbid risk factors concurrently, and may therefore effect some measurable changes in suicide risk that until now appears to have been especially treatment resistant.

Hypotheses. The following hypothesis were explored in this study:

1. At Pre-treatment the Suicide Behaviour groups will have higher levels of mental health symptoms and depression than the Suicide Behaviour group.

2. At Pre-treatment the No-Suicide Behaviour group will use productive coping more frequently, and non-productive coping less frequently than the Suicide Behaviour group.

3. There will be Pre-treatment group difference in the profile of mental health symptoms, that is, the Suicide Behaviour group will have a greater number of mental health symptoms from the *Internalising* category of the Youth Self Report measure.

4. There will be Pre-treatment group differences in the types of productive and non-productive coping used by the Suicide Behaviour and No-Suicide Behaviour group.

5. Participants will show a reduction in mental health symptoms and depression over the course of the intervention (Pre-treatment to Post-treatment) and also in the post-intervention phase (Post-treatment to Follow-up).

6. At Pre-treatment, Post-treatment and Follow-up more frequent use of non-productive coping will be associated with higher levels of depression and a greater number of mental health symptoms for both groups.

7. At Pre-treatment, Post-treatment and Follow-up more frequent use of productive coping will be associated with lower levels of depression and fewer mental health symptoms for both groups.

8. Over the course of the intervention and post intervention phase all participants will show a decreased use of non-productive coping and an increased use of productive coping.

9. There will be no relationship between the frequency of use of productive and non-productive coping, as these are distinct constructs.

10. The No-Suicide behaviour group will have a greater reduction in mental health symptoms and Depression than the Suicide Behaviour group over the course of the intervention and post-intervention phase.

11. The decreased use of non-productive coping and the increased use of productive coping will be greater in the No-Suicide Behaviour group than in the Suicide Behaviour group.

Chapter 4

Method

4.1 Participants

Recruitment. Participants were 77 adolescents who completed a standardised multi-modal day-patient treatment at the Austin & Repatriation Medical Centre, Child & Adolescent Mental Health Service (Crisp et al., 2000). Ages ranged from 13 to 18 (M=14.61, SD=1.29) with 61% male. Participants had broad socio-demographic representation.

Participants were referred from a range of sources with a range of intervention histories. Most participants were referred via the Child & Adolescent Mental Health Service out-patient services (70%) while 12% were referred from the service's psychiatric in-patient unit. These participants had a complete bio-psycho-social, developmental adolescent & family assessment (Nurcombe & Fitzhenry-Coor, 1987) prior to referral. However, 4% of participants were referred directly from community mental health service providers and the remaining 12% from other sources such as parents, schools, child protection and youth welfare services. Some participants had previously received interventions within the pervious 24 months, most often from the Child & Adolescent Mental Health Service out-patient services. Twenty-one percent had received individual therapy, 20% family therapy and 10% parent therapy. Ten percent had received out-patient group therapy and 6% had received special education services from the hospital school.

Participants lived in socio-economical diverse geographical areas spanning a large inner and outer metropolitan region of Melbourne. 78% were living at home with parents or guardians, 5% lived in a state facility, 2% lived in private rental accommodation and 13% lived in youth housing. Over 34% had experienced a period of homelessness in the past. Income source for the participants was predominantly via the family (80%), while 12% received social security benefits, 3% had income from other sources and 1% had no income. 4% had an unknown source of income. Over 90% of participants were born in Australia. Maternal birthplace was predominantly Australia (82%), with 7% born in Europe, 4% born in Ireland or the United Kingdom and 3% from Asia. Paternal birthplace

was predominantly Australia (71%), with 10% born in Europe, 4% in Asia and 7% from Ireland or the United Kingdom.

The majority of participants had significant school related problems. Only 27% of participants were regularly attending school, 33% were attending school irregularly and 22% were school refusing. 12% were not enrolled at school. 40% were described as having known or suspected learning difficulties, 10% had known intellectual disability (as formally assessed with standardised psychometric measures of intellectual function), and 46% were reported to have school behaviour problems by teachers or parents.

Research groups. Two groups were derived from this sample on the basis of suicidal behaviour. The first group comprised the *Suicidal Behaviour* group (*n*=19) and those remaining formed the *Non-Suicidal Behaviour* group (*n*=56). Inclusion in the Suicidal Behaviour group was on the basis of either a) self or other reported behaviour which represented an intention to die, b) clinician judgement that reported behaviour demonstrated an intention to die, or c) self, other or clinician reported self-harm. Self-harm which was self or other reported as accidental was not classed suicidal behaviour. Clinicians making this assessment were qualified and experienced specialist trained child and adolescent mental health professionals (Psychologists, Psychiatrists, Social Workers, Psychiatric Nurses).

4.2 Procedure

Treatment intervention. *All participants received a 10 week multi-modal day-patient treatment aimed at reducing suicide and mental health risk-factors and increasing protective factors. The* Brief Intervention Program *(BIP) was an adolescent mental health day program for adolescents with severe emotional, behavioural, social and psychiatric disorders. The program was modularised (had a fixed sequence and range of components), and used a 'closed-group' format, all participants beginning and finishing the program at the same time. Fourteen interventions (programs) were provided continuously over a period of 3.5 years. This service was provided free to any adolescent residing in the north-eastern metropolitan area of Melbourne.*

Target clients were those adolescents aged 13 to 18 and their families who 1) were experiencing, or most at risk of serious psychological disturbance, 2) were victims of physical, sexual or emotional abuse, 3) were adolescents, who in addition to the above were clients of welfare systems, 4) were homeless, 5) had parents who suffer from mental illness or dependence on drugs or alcohol, and 6) had educational or vocational difficulties. To access the program, referral was made to out-patient Child & Adolescent Mental Health Services. Referral to BIP was usually made by a clinician following the completion of a bio-psycho-social adolescent and family developmental assessment. This assessment formed the basis of treatment planning prior to, and during the program. Typically, the following information was gained from 4-6 interviews with the family, the parents, the adolescent and any significant others.

The BIP program typically treated a closed group of between 6-8 adolescents, over 10 weeks in parallel with school terms. Follow-on support was offered post-program for a frequency and duration that was appropriate for the need of the adolescent, typically 3-6 months. The program was structured in three phases - engagement and orientation (first week), treatment (weeks 2-9), and integration and follow-on (week 10 onwards).

Key features of the program included: a) development of a therapeutic alliance, including collaborative negotiation with the adolescent and family of therapeutic objectives, b) comprehensive planning and support for community integration post-program, c) weekly parent group therapy, d) liaison with referring professionals and community services involved with the adolescent, e) program dedicated multi-disciplinary team comprising 2 Psychologists, Occupational Therapist, Special Education Teachers, part-time Social Worker, and clinical interns.

Program components are listed in Table 4.1. Program components were designed to specifically target risk factors for suicidality and psychological disorders, with an emphasis given to social skill and problem solving skill development in relation to family, peer and school related problems.

Table 4.1

Brief Intervention Program Components

Program Component	*Duration*	Frequency (per week)
Group Cognitive-Behavioural Therapy [a]	2 hours	2
Wilderness Adventure Therapy [b]	1 day (7 hours) or 3-5 days (56 or 104 hours)	6 day sessions + 2 expeditions per program
Individual counselling	1 hour	1
Group Psychotherapy	1 hour	1
Psychodrama	1.5 hours	1
Group music therapy	2 hours	1
Sex-education, relationships and personal safety group	1½ hour	1
Recreation & milieu building group	½ hour	1
Self-defence training	½ day	3 sessions per program
Living skills group	2 hours	1
Physical education	2 hours	1
Work experience	½ day	1
Community service	2 hours	1

[a] for detail see Table 4.2 [b] for detail see Table 4.3

The group Cognitive Behavioural Therapy (CBT) modules were delivered by the author and another Psychologist as co-therapist and was based on an unpublished manual developed specifically for the program and adolescent group-based CBT. The group CBT modules were delivered over 18 sessions and are listed in Table 4.2. These modules were specifically developed to address the common risk and protective factors this client population presented with. For instance, risk factors were addressed through modules on managing emotional states such as depression, anger, and stress management. Additionally, modules aimed at the development of protective factors such as promoting communication skills, help-seeking, and increasing peer relationship skills (connectedness), problem solving skills and conflict resolution were included.

Table 4.2

Group Cognitive-Behavioural Therapy Modules

CBT Modules	Therapeutic Objectives
Group & Individual Goal Setting,	Developing motivation to change, Understanding behaviour change, Positive group maintenance strategies (rules)
Identifying Emotions	Increasing emotional vocabulary and mental health literacy
Thoughts-Emotions-Behaviour	Understanding core CBT concepts
Verbal & Non-verbal Communication	Listening skills, Increase awareness of others and own communication styles and skills
Assertiveness	Increasing confidence in assertive behaviour, Understanding difference between assertiveness and submissiveness and aggressiveness
Anger Management	Understanding cognitive and behavioural antecedents of uncontrolled anger, Develop a broader repertoire of cognitive and behavioural anger management strategies
Dealing with Depression	Understanding cognitive and behavioural antecedents of depression and suicidal ideation, Increase personal and environmental repertoire of mood management strategies
Stress Management	Increase awareness of, and competency in the use of effective stress management methods
Problem Solving	Understanding effective social problem-solving strategies, Selection and application of effective problem-solving strategies
Conflict Resolution and Negotiation	Understanding contributors to conflict, Applying previous skills to conflict situations

Making and Keeping Friends	Understanding the stages of adolescent relationships, Trouble-shooting relationship problems
Taking It Away	Termination of the group, Goal setting for future situations, Feedback to, and from, Peers

Sessions were based around integrating CBT concepts, coping and social problem solving strategies with behavioural rehearsal (role-plays) and spontaneous group process events, such as interpersonal communication or conflict situations. Key CBT concepts, problem-solving strategies and coping skills were reinforced in all other components of the program by staff who were regularly in-serviced in all concepts taught.

The Wilderness Adventure Therapy (WAT) modules were delivered by the author and an Occupational Therapist, with support from other program staff. Both staff had extensive training and experience in the delivery of wilderness and adventure programs for youth. The WAT modules were based on frameworks and methods developed by the author specifically for a clinical, day-program setting (Crisp, 1998, 1996; Crisp & Aunger, 1998; Crisp & O'Donnell, 1998a, 1998b). This approach draws significantly from Davis-Berman and Berman (1994a), and to a lesser extent, other practices described in the literature (Gass, 1993). Wilderness Adventure Therapy modules were delivered as a sequence of day wilderness adventure activities and two overnight expeditions. Table 4.3 shows the specific WAT modules in sequence, with the predominant therapeutic objectives that were typical for each.

Table 4.3

Wilderness Adventure Therapy Modules

WAT Module	Therapeutic Objective
Indoor group problem-solving activities	Assessment, orientation
Day bushwalk	Holistic assessment, orientation, group familiarisation, social skills development
Expedition: Backpacking (2-3 days)	Goal setting, accelerate cohesion & group development
Day ropes course (high & low elements)	Responsibility, trust building
Day caving	Communication, c-operation, anxiety management,

Day rock-climbing & abseiling	Risk-taking, self-efficacy, cognitive-affective coping
Day rafting	Co-operation, communication, team-Work
Expedition: White-water rafting / ski-touring [a] (5 days)	Self-reliance, social problem solving, collaborative achievement, peer connection
Day advanced rock-climbing & abseiling	Individual goal-setting, termination

[a] winter season only

As can be seen in Table 4.3, the WAT modules consisted of in-door group initiative activities (Rhonke, 1984), single day outings from the hospital, and overnight expeditions involving multiple days in a journey-based format (Davis-Berman & Berman, 1994). During the expeditions, the group moved independently from place to place through remote wilderness environments carrying all necessary food and shelter. The group remained isolated, and independent of outside assistance throughout that time until their return to the hospital on the last day.

The environmental, social and task demands of such activities and settings were expected to motivate participants to learn, practice and integrate social and personal coping strategies. This therapeutic modality aimed to effect risk and protective factors through behavioural rehearsal, peer modelling, peer feedback and stimulus exposure. For instance, applying skills for managing high levels of emotional states such as anxiety and emotional fatigue in settings that were isomorphic with stressful school, peer and family environments. Such situations also provided practical opportunities where relationship building and social problem solving skills could be developed. Indeed, participants typically experienced extremes in mental states such as anxiety, and mental and physical fatigue. It was also under these conditions that tangible events and inter-personal interactions, allowed the skills and concepts learned during the group CBT components to be practiced and generalised. Participants could gain feedback from the social and physical environment of the adequacy and effectiveness of these strategies. Finally, at the conclusion of all activities, and at the end of expedition days, staff engaged participants through reflection and discussion to psychologically process their experiences in order to extrapolate new learning to their usual home, school or peer environment and any problematic situations therein (Luckner & Nadler, 1992). In effect, the Wilderness Adventure Therapy modules aimed to allow participants to ‘test out’ and refine coping

skills and learn to develop resilience under stressful conditions.

Throughout the program as a whole, behavioural changes made by participants were supported in the adolescent's home or peer environment through individual goal-setting oriented counselling, group psychotherapy and parent group therapy. During these sessions, 'homework' tasks were set, or role-play used, and so on, to integrate and generalise strategies and effective coping. These changes were monitored over time and during follow-up post-program.

At termination of the program, case meetings were held to review and affirm changed behaviour and new coping and problem-solving skills learnt. This was fed-back to the adolescent's family and referring clinician.

Research design and data collection. *The research study involved a repeated measures design. Data was collected at three points in time: Pre-treatment (Time 1), Post-treatment (Time 2) and at Follow-up interview (Time 3). There were 10 weeks between Pre-program and Post-program, while the mean length of time between Post-treatment and Follow-up was 5.17 years (*SD*=1.77).*

At Pre-program (Time 1), Suicidal behaviour status was derived from examination of case files at referral. Demographic information and clinician referral information was gained from the BIP Referral Form (Appendix A). Data from self-report psychometric measures (see Section 2.3 below) was collected by individual face-to-face interview on the first day of the program. Questionnaires are presented to participants using standardised instructions (see Appendix B). Where there was any suspicion of literacy or language problems oral administration was given. Questionnaire protocols were checked immediately following administration for validity of response and completeness. If questionnaires were incomplete, the participant is asked to complete any missing information. At Post-program (Time 2), self-report measures were administered again in the same way immediately post-treatment (as with Pre-program) on the last day of the program.

All those participants who completed valid questionnaires were listed for contacting at

Follow-up (Time 3). In order to maximise the time lapse between Post-treatment and Follow-up, those who completed treatment the longest time past were approached first. The last known current telephone and address was used for phone contact invitation to participate in the study. During this call their response to the invitation was established. Where the participant agreed to be interviewed, a time and venue was established. Typically this involved the participant travelling to the medical centre BIP facilities, otherwise interviews took place in the participant's home or a suitable public place, such as a quite corner of a local fast-food restaurant. Those participants who had moved from their last recorded address were located through either a) the most recent telephone listing of the participant or known relative, or c) current State Electoral Roll address of the participant or known relative (and any subsequent address and telephone number that was able to be determined from that). Fifty-two of the 63 potential participants were able to be located. Only two patients declined to participate in the study.

At Follow-up, those standard questionnaires that had been completed at Pre and Post-treatment were administered. In addition, a structured interview (survey – see Appendix G) was administered verbally that gained information about post-treatment suicidal behaviour history, life events and risk and resilience factors. Finally, participants were given a movie voucher as thanks for their time. After questionnaires were completed, they were scored and this data was then entered into an SPSSx for Windows version 10.0 statistical software data file.

4.3 Measures

To measure mental health symptoms, levels of depression and productive and non-productive coping, the following instruments were used at Pre, Post-treatment and Follow-up. First, the Youth Self Report (Pre and Post-treatment - Achenbach, 1991) and the Young Adult Self Report (Follow-up - Achenbach, 1997) provided a general measure of a range of mental health symtoms. Second, the Beck Depression Inventory (Beck & Steer, 1987) measured the extent of depressive symptoms. Third, the Adolescent Coping Scale – Productive and Non-Productive subscales (Frydenberg & Lewis, 1993) measured the frequency of productive and non-productive adolescent coping styles. At Follow-up, the above measures were readministered. Finally, a structured survey (constructed by the author) was used to gain information on general life events, suicidal and coping behaviour history following treatment.

Adolescent self-report has been shown in Australian adolescents to be a more sensitive method of determining the level of symptoms of psychological disturbance than parent report (Sawyer et al., 2000) and because of the adolescent focussed nature of the program was considered to be a more appropriate and reliable method of measuring psychological risk factors. Further, some participants were homeless and parent-based data was likely to be impossible to obtain or invalid.

However the fact still remains that the measures available to assess adolescents are still reasonably inadequate, given the measures that are available to assess adolescents still face the problems of variation of cognitive development in this age range.

Youth Self Report and Young Adult Self Report. The *Youth Self Report* (YSR) was designed to assess competencies and problems in 11 to 18 year olds (Achenbach, 1991) using 112 items and is based on the Child Behaviour Check List for children (Achenbach, 1991). The self-report aspect of the instrument allows the adolescent's own view of their functioning in terms of both competencies and problems to be used to gain a global estimate of the adolescent's functioning (see Appendix C).

In problem areas, the following syndromes were empirically derived through principal component analyses (Achanbach, 1991). First, two dimensions were found: Internalising and Externalising symptoms. Two syndromes existed in the Internalising dimension, namely *somatic complaints* and *anxious / depressed*. A syndrome of *withdrawn* was found in the Internalising cross-informant versions of the YSR and so was included in the Internalising subscale of the YSR. Further, two syndromes were also found within the Externalising dimension: *delinquent behaviour* and *aggressive behaviour*. Finally, four syndromes were found which fell in neither the internalising nor externalising dimension: *social problems*, *thought problems*, *attention problems* and *self-destruct / identity problems*.

The YSR has good internal consistency with Cronbach's *alpha* (Cronbach, 1951) coefficients of .95 for both males and females. In a general population, one week test-retest reliability is reported to be r=.79 in the total problem scales, while seven month test-retest stability in the total problem scale is reported to be r=.56 (Achenbach, 1991). In a clinical sample, six month stability was r=.69 for the total problem score. Content validity and criterion related validity is reported as satisfactory in discriminating between clinic referred and non-referred adolescents. Further, clinical cut-off points on problem scales significantly discriminated between clinic referred and non-referred adolescents (*T*-score of 60 or more). In a whole population sample study, Sawyer and colleagues (2000) found clear support for USA population norms to be appropriate for use with Australian adolescents.

A young adult version of the YSR was developed in the same way as the YSR, with comparable psychometric structure (see Appendix D). The *Young Adult Self Report* (YASR) is a 119 item questionnaire with Internalising and Externalising symptom dimensions and syndrome scales equivalent to the YSR. The YASR is also scored to yield *T*-scores for interpretation. This allows for direct comparison of *T*-scores between both instruments. Indeed, enabling research in to the developmental trajectory of psychopathology from adolescence to adulthood was a key reason for the development of the YASR. For this reason, the YASR was an ideal measure to use at Follow-up as it complimented the early use of the YSR and allowed comparisons from adolescence (Post-treatment) to adulthood (Follow-up) in terms of mental health symptom profiles.

The YASR also has excellent internal consistency with Cronbach's *alpha* (Cronbach, 1951) coefficients of .96 for both males and females. In a mixed clinical, but mostly normal sample, one week test-retest reliability is reported to be high with r=.89 in the total problem scales, while 39 month (3.25 years) test-retest stability in the total problem scale is reported to be r=.65 for a mixed clinical and normal sample (Achenbach, 1991). Content validity and criterion related validity is reported as satisfactory in discriminating between clinic referred and non-referred young adults as determined by ANOVA on all but one of the 119 items. Finally, clinical cut-off points on problem scales significantly discriminated between clinic referred and non-referred young adults (*T*-score of 60 or more).

Several of the YSR and YASR empirically derived syndromes have approximate counterparts in DSM diagnoses (American Psychiatric Association, 1994) that have found statistically significant associations (Weinstien, Noam, Grimes, Stone and Schwab-Stone, 1990 cited in Achenbach, 1991). Achenbach (1997) argues that while the YSR and YASR could be used to make a DSM diagnosis, a truly valid diagnosis should incorporate information from multiple sources. As the purpose of this study is to measure the effect of an intervention on psychological problems over time, rather than address diagnostic issues, formal DSM diagnoses were not included here.

Interpreting the YSR and YASR is done by comparing *T*-scores on Internalizing, Externalizing, Total problem scales and the eight syndrome scales to established cut-off scores. The *T*-scores allow the measurement of the severity of psychological problems in terms of deviation from the population norm. For example, *T*-scores of 60 to 63 indicate percentile ranking between 82 and 90 which was found to best discriminate clinical groups from normal individuals (Achenbach, 1991). Therefore, a *T*-score of 60 or more is considered to be the cut-off that places the individual within a clinically significant range of psychological problems. Males and females can be compared because of the use of *T*-scores that have been normed separately for each sex.

Beck Depression Inventory. The *Beck Depression Inventory* (revised version) is a 21 item self-rating inventory of depressive symptoms designed to assess the severity of depressive symptoms in adolescents and adults (Beck & Steer, 1987 – see Appendix E). Since the revised version's introduction in 1971 it has been one of the most widely used instruments for assessing depression in psychiatric populations (Piotrowski, Sherry &

Keller, 1985, cited in Beck & Steer, 1987) and screening for depression in normal populations (Steer, Beck and Garrison, 1985). The authors report no significant age differences in mixed age populations (Beck & Steer, 1987) and its applicability for use specifically with adolescent populations has been supported for clinical adolescent samples (Bennett et al., 1999) and normal adolescent samples (Roberts, Lewinsohn & Seeley, 1991).

The BDI has a reasonable internal consistency for both normal and clinical samples with Cronbach's *alpha* of .86 in a meta-analysis with mixed psychiatric and normal samples (Beck, Steer & Garbin, in press, cited in Beck & Steer, 1987). Test-retest reliability ranges between r=.48 and r=.86 in clinical samples and r=.60 to r=.90 in non-clinical samples both of variable time intervals. In a college sample of 204, two-week test-retest correlations of r=.90 were found (Lightfoot & Oliver, 1985, cited in Beck & Steer, 1987). Content validity is reported by the test developers as satisfactory with item contents specifically reflecting diagnostic criteria. Discriminant validity is reported by Beck and Steer (1987) as good, being able to differentiate normal samples from depressed samples and other psychiatric diagnoses, including anxiety disorders and dysthymia.

The BDI was used in this study despite significantly varied cognitive development during adolescence. Fist, the BDI has been found to be suitable with adolescents as young as 13 years (Albert & Beck, 1975; Teri, 1982). Second, it is difficult to find any measures that is unlikely to be effected by such developmental variations. However, due to the broad age range in the participant in the present study, a measure needed to be appropriate for use with both adolescents and adults (age range from 13 to 22 years). For example the Childrens Depression Inventory or other adolescent depression scales were not used as they would not have been appropriate for young adults in the Follow-up data collection period.

In interpreting the BDI total score, each of the 21 symptom items is graded into four degrees of severity where the respondent endorses any and/or the most severe option. Items scores are then summed to yield an overall depression severity score between 0 and 63. Scores within 0 to 9 are considered within the normal range or *asymptomatic*, 10 to 18 indicate *mild-moderate depression* while scores of 19 to 29 indicate *moderate- severe depression*. Scores between 30 and 63 indicate *extremely severe depression*.

Adolescent Coping Scale. The *Adolescent Coping Scale* (ACS) was developed as a self-evaluation questionnaire from high school student generated descriptions of coping behaviour (Frydenberg & Lewis, 1990 – see Appendix F). An 80 item questionnaire was developed which assesses 18 dimensions of student coping behaviour with either specific problems of generally. Scores combined from five point Likert scales are used to rate the frequency of use of any particular coping strategy: "not used at all" (20-29), "used very little" (30-49), "used sometimes" (50-69), "used frequently" (70-89), and "used a great deal" (90-100).

Factor analyses revealed thirteen factors, categorised as the following coping styles: 1) ignore the problem, 2) seek social support, 3) focus on solving the problem, 4) work hard and achieve, 5) leisure, 6) focus on the positive, 7) seek spiritual support, 8) seek professional help, 9) worry, 10) invest in close friends, 11) seek to belong, 12) relaxing diversions, and 13) social action. Five less common coping styles reported in the literature were additional included to these 13 factors: 14) tension reduction, 15) wishful thinking, 16) self-blame, 17) keep the problem to myself, and 18) not coping (Psychosomatic symptoms). These 18 factors were found to cluster in to three groups. The first included nine productive coping styles: *Focus on solving the problem, work hard and achieve, invest in close friends, seek to belong, take social action, focus on the positive, seek relaxing diversions,* and *physical recreation*. The second factor was one productive coping style: *Seek social support*. The third was a cluster of nine non-productive coping styles: *Worry, wishful thinking, not cope, tension reduction, ignore the problem, self-blame, keep to self, seek spiritual support,* and *seek professional support*. These three factors are able to be grouped under two theoretically distinct subscales: *productive* (first two factors) and *non-productive* coping (third factor). These two subscales were used in the present study to compare adaptive (ACS-P) and non-adaptive (ACS-NP) coping behaviour.

Frydenberg and Lewis (1990) report acceptable two-week test-retest reliability. Internal consistency is reported to be good with a Cronbach's *alpha* greater than, or equal to .65 for all but 3 of the 18 scales (two of which have only 3 items). To date there are no norms on frequency of various coping behaviour, with an exception being modest data (n=174) on high school students' coping in regard to achievement, relationships and altruism (Frydenberg & Lewis, 1994). With these areas of concern, this sample showed that seeking of social support was reported with high frequency and seeking spiritual support

and seeking professional help were reported with low frequency. Frydenberg and Lewis (1994) conclude that normal adolescents demonstrate a general coping style that is not problem specific, but with a component which is problem specific. For this reason, the 'General Form' (as opposed to the Specific Form) of the ACS was used in this study to measure overall coping across problems.

Chapter 5

Results

5.1 Plan of Analysis

The majority of analyses examined the differences between two groups, namely participants who had a pre-treatment history of suicide attempt or self-harm (Suicide Behaviour) and participants who did not have a pre-treatment history of suicide attempt or self-harm (No-Suicide Behaviour). Self -report measures were completed at Pre-treatment, Post-treatment and Follow-up. Changes to these self-report measures were used to assess the effects of the Intervention (i.e., Pre-treatment to Post-treatment) and Post-intervention phase (i.e., Post-treatment to Follow-up).

Distributional characteristics of the data (Youth Self-Report, Young Adult Self Report, the Beck Depression Inventory and the Adolescent Coping Scale-Productive coping scale and the Adolescent Coping Scale-Non-Productive coping scale) were examined at Pre-treatment, Post treatment and Follow-up for acceptable skew and kurtosis for both groups. Descriptive statistics and bivariate correlations between the four self-report measures at Pre-treatment were examined prior to analysis of group differences (MANOVA).

To further explore Pre-treatment group characteristics, the nine subscales comprising the ACS Productive total and nine subscales of ACS Non-Productive total were examined. Similar analyses were also performed on the two subscales (Internalising subscale and Externalising subscale) of the YSR questionnaire total to explore Pre-treatment group differences in mental health symptoms.

The next set of analyses examined the effect of the treatment between groups (Pre-treatment and Post-treatment) using mixed design ANOVAs. The YSR Internalising and Externalising subscales were also examined to determine the changes to these mental health profiles over the treatment phase.

The third set of analyses looked at changes that occurred over the Post-intervention

phase (between Post-treatment and the Follow-up assessment), again using mixed design ANOVAs. Similar analyses were conducted on the YASR Internalising and Externalising subscales to examine the changes to these scores over the Post-intervention phase.

In addition, analyses were conducted to examine whether dropout had a significant effect on the outcomes. Finally, descriptive data on clinical incidence and rates of suicidal behaviour during the post-intervention phase is presented. Two case studies are then described and discussed.

5.2 Missing Data

Table 5.1 outlines the number of participants in the Suicide Behaviour and No-Suicide Behaviour group who completed each of the four self-report measures at each stage of assessment.

Table 5.1

Numbers of Participants in the Suicide Behaviour Group and the No-Suicide Behaviour Group Who Completed the YSR,YASR,BDI, ACS-P and ACS-NP at Pre-treatment, Post-treatment and Follow-up

Measure	Time	Suicide Behaviour	No-Suicide Behaviour	Total
YSR	Pre-treatment	16	48	64
	Post-treatment	16	50	66
YASR	Follow-up	15	22	37
BDI	Pre-treatment	18	56	74
	Post-treatment	18	56	74
	Follow-up	14	28	42
ACS-P	Pre-treatment	11	38	49
	Post-treatment	11	36	47
	F-Up	10	13	23
ACS-NP	Pre-treatment	11	38	49
	Post-treatment	11	36	49
	Follow-up	10	13	23

The majority of participants completed all four self-report measures at each testing time, however slightly higher completion rates are seen for the YSR/YASR, BDI compared to the ACS Productive and Non-productive coping scales. Further information about the overlap of numbers of self-report measures completed at each time is included in the

correlation tables in the following sections. The number of dropouts across Pre-treatment and Post-treatment (during the intervention phase) were minimal. The dropout rate from Post-treatment to Follow-up (Post-intervention phase) were substantial for the No-Suicide Behaviour group due to a regrettable administrative error by the institution where the data was stored. The original capture rate for the No-Suicide Behaviour group was 80%, however the data lost reduced this to 60%. However since the loss was not associated with severity of symptoms, or response to treatment, the remaining data was assumed to be representative of the larger capture rate originally achieved.

Another issue is that data collection with clinical samples has inherent problems. Due to the normal developmental needs of adolescents' to assert their independence, the request to participate in data collection may be used as an opportunity to demonstrate self-determination, hence non-compliance with adult requests. At times not all measures will be completed because of the difficulty keeping the participants engaged in the data collection process. In particular, while data collection may be completed at pre-treatment, due to issues of engagement, the problem may be exhibited at subsequent data collection point (i.e., Post-treatment and Follow-up). Additionally, tracking participants during the post-intervention phase is difficult as this population is often transient. This results in an inability to make contact with participants to complete follow-up assessment.

5.3 Distributional Characteristics of the Data

At each stage of the study (Pre-treatment, Post-treatment, and Follow-up), self-report measures (YSR/YASR, BDI, ACS-P and ACS-NP) were assessed to see if they met the assumption of normality of distribution. Standardized indices of skewness and kurtosis (Tabachnick & Fidell, 1996) were calculated for self-report measures at Pre-treatment, Post-treatment and Follow-up stages for each group are presented in Table 5.2.

Table 5.2

Standardized Indices of Skewness (Zskewness) and Kurtosis (Zkurtosis) and Sample Sizes of the Pre Treatment, Post-treatment and Follow-up YSR/YASR, BDI, ACS-P and ACS-NP Self-report Measures for the Suicide Behaviour and No-Suicide Behaviour Groups

	Suicide Behaviour			No-Suicide Behaviour		
	n		*Zkurtosis*	*n*	*Zskewness*	*Zkurtosis*
Measure		***Zskewness***				
Pre-treatment						
YSR	48	-0.25	-0.68	16	0.36	-0.67
BDI	56	0.67	-1.13	18	2.46	-0.73
ACS-P	38	-0.98	-0.36	11	0.60	-0.76
ACS-NP	38	-0.15	-0.52	11	-0.22	-1.00
Post-treatment						
YSR	50	-0.13	-0.10	16	0.37	-0.51
BDI	56	0.57	-1.06	18	3.93	1.49
ACS-P	36	0.12	0.62	11	-0.41	-0.77
ACS-NP	36	-0.41	-0.95	11	-1.46	-0.99
Follow-up						
YASR	22	1.26	-0.53	15	-1.53	1.08
BDI	28	1.80	-0.28	14	3.73	1.55
ACS-P	13	0.01	-0.98	10	-0.76	-0.60
ACS-NP	13	2.26	1.52	10	-0.94	-0.91

A majority of the standardised indices of skewness and kurtosis were within the range of ± 2.575 (corresponding to $\alpha = .01$). The BDI at Post-treatment and Follow-up for the No-suicide group were significantly skewed.

It should be noted that for the Suicide Behaviour group the Post-treatment and Follow-up BDI scores were significantly skewed. Similarly the Pre-treatment BDI scores for this group were almost significantly skewed. This would be expected, as depressive symptoms, including suicidal ideation, are the basis for the categorization of these groups. Analyses were therefore conducted with the untransformed variable. In view of this difficulty with significant skewness, the following analyses take note of the equality of error variance to determine whether there had been any impact of this skew on the results.

The impact of age and gender on treatment outcomes was also considered. As the main purpose of these analyses were to investigate group differences (Suicide Behaviour compared to No-Suicide Behaviour) the correlation between age and group, and the

correlation between group and gender was examined. The correlation between age and group revealed that there was no significant relationship (r= -.160, n= 77, p=.163). The correlation between gender and group also revealed no significant difference between groups (r= .151, n= 77, p=.191). Therefore age and gender were not included in the following analyses. Further, the inclusion of a greater number of variables in such a study with a small sample size would not be advisable.

5.4 Pre-treatment Differences Between Groups

This first investigation was conducted to establish if there were any differences in Pre-treatment self-report measures between the No-Suicide Behaviour and Suicide Behaviour groups. Means and standard deviations of Pre-treatment self-report measures for the No-Suicide Behaviour and Suicide Behaviour groups are presented in Table 5.3.

Table 5.3

Mean and Standard Deviations of Pre-treatment YSR, BDI, ACS-P and ACS-NP Self-report Measures for the No-Suicide Behaviour and Suicide Behaviour Groups

Measure	Suicide Behaviour			No-Suicide Behaviour		
	n	***M***	***SD***	***n***	***M***	***SD***
YSR	16	67.25	11.02	48	60.25	11.24
BDI	18	23.44	12.13	56	13.05	9.63
ACS-P	11	478.27	101.93	38	522.34	110.89
ACS-NP	11	506.55	121.74	38	459.74	97.22

It can be seen that the Suicide Behaviour group followed the expected pattern of higher mental health symptoms (YSR), depression (BDI), and use of Non-Productive coping styles and lower use of Productive coping-styles than the No-Suicide Behaviour group. Table 5.4 presents the correlations between Pre-treatment self-report measures for the two groups.

Table 5.4

Pearson Product Moment Correlation (with sample size in parentheses) Between Pre-treatment YSR, BDI, ACS-P and ACS-NP Self-report Measures for the No-Suicide Behaviour and Suicide Behaviour Groups

					No-Suicide Behaviour	
	Suicide Behaviour					
Measure	YSR	BDI	ACS-P	YSR	BDI	ACS-P
BDI	.67 (15)	-	-	.71 (46)	-	-
ACS-P	.20 (11)	-.39 (10)	-	.23 (38)	.18 (37)	-
ACS-NP	.78 (11)	.61 (10)	.20 (11)	.73 (38)	.67 (37)	.38 (38)

The two groups had similar patterns of correlations between the Pre-treatment self-report measures. For both the No-Suicide Behaviour and Suicide Behaviour groups, mental health symptoms (YSR) had a strong positive correlation with both depression (BDI) and the ACS Non-Productive coping scale, as would be expected. As predicted, there was a strong positive correlation between the BDI and the ACS Non-Productive coping scale for both groups. Both groups showed a low correlation between the ACS Productive coping and Non-Productive coping scales supporting the discriminant validity of these measures. One notable difference between the groups was that the Suicide Behaviour groups had a moderate negative correlation between BDI and ACS-P: Higher levels of productive coping were associated with lower levels of depression. However, this relationship was not present in the No-Suicide Behaviour group.

To determine whether there were any significant differences between the two groups at Pre-treatment, a between-groups multivariate analysis of variance (MANOVA) was conducted with group as the independent variable and Pre-treatment YSR, BDI, ACS-P and ACS-NP self-report measures as the dependent variables. Preliminary assumption testing was conducted to check normality, equality of error variance, univariate and multivariate outliers and multicollinearity with no serious violations noted. The homogeneity of variance-covariance was also met (*Box's M*= 8.50, *F* (10, 1423)= .72, *p*= .708). It should be noted that the assumption of equal error variance was met, verifying that the (nearly) significant skew of the pre-treatment BDI measure did not have a detrimental impact on the following analyses. The between-groups MANOVA revealed no significant differences in Pre-treatment self-report measures between No-Suicide Behaviour and Suicide Behaviour groups (*F* (4,57) = 1.66, *p=.172*, η^2 = .104, power=.478) on the four self-report measures. This indicates that the two groups reported a similar level of dysfunction prior to treatment, however the observed power revealed

Commented [MSOffice2]: Levene's tests were all non-significant. Univariate outliers were not present as determined by a boxplot for all DV's. Normality was checked using Mahlanobis distance, it was 11.657, with critical value of 18.47 for 4 DV's. Scatterplots showed that the linearity assumptions were met. The multicollinearity is borderline as two of the DVS correlate at .78 and .71. However this is below the .8 that is regarded as unacceptable. Therefore multicollinearity was regarded as fine.

that there was not sufficient power to detect a group difference if it was present (less than 80%), therefore only tentative support for the null hypothesis is provided. For both groups the mean level of mental health symptoms fell within the clinical (disorder) range of symptoms, i.e., above a *T*-score of 60 (Achenbach, 1991), although the Suicide Behaviour group were higher. Similarly the BDI scores showed that the Suicide Behaviour group were moderately to severely depressed (i.e., 19-29) and the No-Suicide Behaviour group were mild to moderately depressed (i.e., 10-18; Beck & Steer, 1987). The average use of productive (ACS-P) and non-productive coping (ACS-NP) were both within the "used sometimes" range of frequency (i.e., 50-69, based on the average across the nine subscales that make up both the Productive and Non Productive coping scales; Frydenberg & Lewis, 1993).

Exploratory Analyses of the ACS and YSR Subscales. To further investigate the use of different coping styles between groups at pre-treatment the means and standard deviations for each of the nine subscales of the ACS Productive coping scale for both the No-Suicide Behaviour and Suicide Behaviour groups were produced (see Table 5.5).

Table 5.5

Means and Standard Deviations of the Nine Pre-treatment ACS Productive Coping Styles for the No-Suicide Behaviour and Suicide Behaviour Groups

	Suicide Behaviour [b]		No-Suicide Behaviour [a]	
ACS-P Subscale	*M*	*SD*	*M*	*SD*
Social Support	47.60	15.49	54.33	18.67
Solving Problems	56.80	17.97	59.11	16.40
Work Hard	53.82	12.31	54.00	17.85
Friends	64.80	21.81	61.11	22.29
Belonging	62.80	14.49	57.89	16.21
Social Acceptance	46.00	13.29	46.25	17.29
Positive focus	47.00	10.59	55.99	18.32
Relaxation	64.40	22.09	78.58	18.80
Physical Recreation	53.41	18.45	53.87	18.69

[a] $N = 36$ [b] $N = 10$

The No-Suicide Behaviour group generally reported more frequent use of the ACS Productive coping styles than the Suicide Behaviour group, in all but two of the ACS Productive coping-styles. Opposite to this trend is that the Suicide Behaviour group reported more frequent use of the *Using Friends* and *Belonging* subscales of the ACS-P. For both groups, most subscale scores fell within the "used sometimes" (i.e., 50-69) category (or just below). However, the No-Suicide

Behaviour group scores on the *Relaxation* subscale fell within the "used frequently" (i.e., 70-89) category.

A between-groups MANOVA was conducted on the nine ACS-P subscales to determine whether there were any group differences in Pre-treatment use of ACS-P coping style. Tests of assumption were conducted to check normality, equality of error variance, univariate and multivariate outliers and multicollinearity with no serious violations noted. The homogeneity of variance-covariance was also met (*Box's M*= 70.26, *F* (45, 918)= 0.91, *p*=.637).

Commented [MSOffice3]: Levene's tests were all non-significant. Univariate outliers were not present as determined by a boxplot for all DV's. Normality was checked using Mahlanobis distance, it was 15.57, with critical value of 27.88 for 9 DV's. Scatterplots showed that the linearity assumptions were met. The multicollinearity was acceptable as all D, F (2, lated at below .8.

The between groups MANOVA revealed no significant difference in the Pre-treatment ACS Productive coping styles used by the Suicide Behaviour and No-Suicide Behaviour groups on the nine types of productive coping subscales comprising the ACS-P ($\eta 2$ = .26, *F* (9, 36)= 1.42, *p*=.218, power=.576). However the observed power revealed that there was insufficient power to detect a group difference if it was present (less than 80%), therefore only tentative support for the null hypothesis is provided.

Similarly the nine ACS Non-Productive coping styles were analysed. Means and standard deviations of the nine Pre-treatment ACS Non-Productive coping styles for the No-Suicide Behaviour and Suicide Behaviour groups are presented in Table 5.6.

Table 5.6

Means and Standard Deviations of the Nine Pre-treatment ACS Non-Productive Coping Styles for the No-Suicide Behaviour and Suicide Behaviour Groups

	Suicide Behaviour [b]		No-Suicide Behaviour [a]	
ACS-NP Subscale	*M*	*SD*	*M*	*SD*
Worry about Problem	56.73	22.76	53.26	19.24
Wishful Thinking	58.91	26.60	59.58	19.68
Not Cope	55.27	16.95	45.05	13.63
Tension Reduction	49.09	20.01	48.11	17.13
Ignore the problem	59.09	26.91	51.87	16.22
Self Blame	56.09	27.97	52.00	20.59
Keep problem to Self	69.55	21.85	56.74	15.56
Spirituality	37.73	17.08	35.92	23.42
Seek Professional Help	64.09	24.58	57.21	25.81

[a] *N*= 38 [b] *N*= 11

The Suicide Behaviour group generally reported more frequent use of the ACS Non-Productive coping styles than the No-Suicide Behaviour group, in all but two of the subscales. Opposite to this trend is that the No-Suicide Behaviour group reported more

frequent use of the *Wishful Thinking* and *Tension Reduction* subscales of the of the ACS-NP scale. For both groups, all subscale scores fell within the "used sometimes" (i.e., 50-69) category.

A between-groups MANOVA was conducted to examine Pre-treatment groups differences on the nine ACS-NP subscales. Tests of assumptions were conducted to check normality, equality of error variance, univariate and multivariate outliers and multicollinearity. All except one subscale conformed to the assumptions for MANOVA, with the ACS-NP *spirituality* subscale being positively skewed. Levene's tests of equal variance were met for all ACS-NP subscales except *Ignoring the problem* ($F(1,47)= 8.00$, $p=.007$). The homogeneity of variance-covariance was met (*Box's M*=74.77, F (45, 1147)=1.05, $p=.391$).

Commented [N4]: Check the output for this and see if it was >2.575, as this was checked before ben set it at this level (and not 1.96)

The analyses revealed that there was no significant Pre-treatment differences between the No-Suicide Behaviour and Suicide Behaviour groups use of Non-Productive coping styles, ($\eta^2 =. 20$, F (9,39) = 1.06, $p=.416$, power=.441). However, the observed power revealed that there was insufficient power to detect a group difference if it was present (less than 80%), therefore only tentative support for the null hypothesis is provided.

A final investigation regarding the relationship between Pre-treatment self-report measures was conducted on two groupings of syndromes with adolescent suicide, the YSR Internalising and Externalising subscales (Achenbach, 1991). The prevalence of these groupings of syndromes was investigated for both groups. Table 5.7 contains the means and standard deviations for the Pre-treatment YSR Internalising and Externalising subscales for the No-Suicide Behaviour and Suicide Behaviour groups.

Table 5.7

Means and Standard Deviations of YSR Internalising and Externalising Subscales for the No-Suicide Behaviour and Suicide Behaviour Groups

	Suicide Behaviour [b]		No-Suicide Behaviour [a]	
YSR subscale	*M*	*SD*	*M*	*SD*
Internalising	66.50	11.23	57.16	11.36
Externalising	64.92	13.83	58.29	12.70

[a] $N= 38$ [b] $N= 12$

In general, the Suicide Behaviour group had higher scores on the YSR Internalising and Externalising subscales than the No-Suicide Behaviour group. According to the clinical cut-off *T*-score for the YSR, the Suicide Behaviour group was in the clinical range of mental health symptoms, while the No-Suicide Behaviour group fell within the normal range.

A between-groups MANOVA was conducted on the data with the YSR subscales (Internalising /Externalising) as the dependant variables. Assumption testing was conducted on the YSR Internalising and Externalising subscales and all multivariate assumptions were met. The equality or error variance assumption was met for both Pre-treatment YSR subscales. Equality of Variance-covariance assumption was also met (*Box's M*=1.99, *F*(3, 12460)= .63, *p*=.597). The analyses revealed that there was a significant group difference on the YSR Internalising or Externalising scales (η^2=. 096, *F*(2, 61)=3.29, *p*=.044). The univariate results revealed a significant difference between the Suicide Behaviour and No-Suicide Behaviour on the Pre-treatment YSR Internalising subscale (η^2=. 096, *F*(1, 62)=6.61, *p*=.013). Table 5.7 shows that the Suicide Behaviour group reported higher scores on the YSR Internalising subscale. This indicates that individuals with pre-treatment suicidal behaviour were more likely to present with a profile of internalised mental health symptoms (withdrawn behaviour, somatic complaints and anxious / depressed symptoms).

Commented [MSOffice5]: Note that the depression scores were no sig, however the more overarching concept od internalizing was sig. Therefore this concept may be a better way top measure depression or low mood in adolescents. Or it might be a more sensitive measure therefore able to detect this affect in a small sample. Also the Suicide Behaviour group might not be akin to depression per sae but more related to withdrawal which is measured in the YSR internalising scale.

5.5 Effects of the Intervention

An investigation was conducted to explore whether there were any groups differences in the YSR, BDI, ACS-P, or ACS-NP total self-report measures as a consequence of the intervention (Pre-treatment to Post-treatment). Table 5.8 contains the means and standard deviations of self-report measures at Pre-treatment and Post-treatment for the No-Suicide Behaviour and Suicide Behaviour groups.

Table 5.8

Means and Standard Deviations of Self-report Measures at Pre-treatment and Post-treatment for the No-Suicide Behaviour and Suicide Behaviour Groups

Measure	Time	Suicide Behaviour			No-Suicide Behaviour			Overall		
		n	***M***	*SD*	***n***	***M***	***SD***	***n***	***M***	***SD***
YSR										
	Pre	16	67.25	11.02	48	60.25	11.24	64	62.00	11.51
	Post	16	66.75	9.79	50	59.44	12.39	64	61.22	12.29
BDI										
	Pre	18	23.44	12.13	56	13.05	9.63	73	15.78	11.09
	Post	18	19.50	14.76	56	12.64	12.19	73	14.47	13.11
ACS-P										
	Pre	11	478.27	101.93	38	522.34	110.89	47	516.04	110.39
	Post	11	506.64	69.33	36	525.78	119.49	47	521.29	109.44
ACS-NP										
	Pre	11	506.55	121.74	38	459.74	97.22	47	476.89	100.59
	Post	11	509.27	115.92	36	454.75	106.41	47	467.51	109.91

Pre= Pre-treatment Post= Post-treatment

There were some small differences in self-report measures between Pre-treatment and Post-treatment for the two groups. The mental health symptoms (YSR) for the No-Suicide Behaviour group reduced to just within the normal range, while the Suicide Behaviour group remained in the clinical range. The Suicide Behaviour group's BDI scores reduced to just above the cut-off score for *moderate to severe* depression, however the No-Suicide Behaviour group scores remained with the *mild to moderate* depression category. The largest relative difference may be observed in changes to ACS-P self-report measures for the Suicide Behaviour group, however all these scores remain within the "used sometimes" category. Table 5.9 contains the correlations between the self-report measures at Post-treatment for the two groups.

Table 5.9

Pearson Product Moment Correlations (with sample size in parentheses) for Post-treatment Self-report Measures for the No-Suicide Behaviour and Suicide Behaviour Groups

	Suicide Behaviour			No-Suicide Behaviour		
Measure	YSR	BDI	ACS-P	YSR	BDI	ACS-P
BDI	.72 (15)	-	-	.69 (48)	-	-
ACS-P	.11 (11)	-.32 (10)	-	.22 (36)	.02 (36)	-
ACS-NP	.74 (11)	.65 (10)	.29 (11)	.53 (36)	.25 (36)	.72 (36)

Similarly to the Pre-treatment self-report measures, both the Suicide Behaviour and No-Suicide Behaviour group's mental health symptoms (YSR) shared a strong positive correlation between both depression (BDI) and ACS Non-Productive coping (ACS-P). Similarly to the correlations at Pre-treatment, there was a difference between the groups correlations between BDI and ACS-P (i.e., the Suicide Behaviour groups had a moderate negative correlation between BDI and ACS-P, that is, higher levels of productive coping were associated with lower levels of depression, however this relationship was not present in the No-Suicide Behaviour group). One notable change in the pattern of correlations was that, while both groups had a strong positive correlation between depression (BDI) and Non-Productive coping (ACS-NP) at Pre-treatment this strong correlation was no longer present for the No-Suicide Behaviour group at Post-treatment.

To examine the effect of intervention (Pre-treatment to Post-treatment) four separate mixed design ANOVAs were conducted on the YSR, BDI, ACS-P and ACS-NP self-report measures. Normality assumptions were tested and almost no violations were noted. The results from the ANOVAs are presented in Table 5.10.

Commented [SC6]: YSR- Box's M= 6.905, F(2,12460)+2.182, p=.088. Levene's all non-ig.
BDI- Box's M= 2.277, F(3,15824)=.724, p=.537, Levene's was violated for pre BDI (F (1,71)=1.207, p=.044)

Table 5.10

Results from Four Separate ANOVAs Investigating the Effects of Treatment on Several Self-report Measures (the YSR, BDI, ACS-P and ACS-NP) Over Time (Pre-treatment to Post-treatment.

Effect Measure	*SS*	*df*	*MS*	*F*	*p*	η^2	Observed Power
YSR							
Time	11.34	1	11.34	0.32	.576	.005	.086
Group x Time	0.84	1	0.84	0.02	.879	.000	.053
Error	2228.62	62	35.95				
BDI							
Time	131.22	1	131.22	2.76	.101	.037	.375
Group x Time	82.59	1	82.59	1.74	.192	.024	.225
Error	3372.29	71	47.50				
ACS-P							
Time	2971.40	1	2971.40	1.23	.274	.027	.192
Group x Time	3834.38	1	3834.38	1.58	.215	.034	.234
Error	108954.09	45	2421.20				
ACS-NP							
Time	451.81	1	451.81	0.14	.707	.003	.066
Group x Time	1053.09	1	1053.09	0.33	.567	.007	.087
Error	142561.44	45	3168.03				

Note: η^2 is the effect size index; eta squared. Group (Suicide Behaviour versus No-Suicide Behaviour), Time (Pre-treatment to Post-treatment)

As can be seen from Table 5.10, there were no significant effects of the intervention phase on the two groups self report measures over time. However, the observed power revealed that there was insufficient power to detect a group difference if it was present (less than 80%), therefore only tentative support for the null hypothesis is provided.

Exploratory Analyses of the YSR Subscales at Post-treatment. To further explore the group differences found at Pre-treatment on mental health symptom profiles (YSR Internalizing and Externalsing subscales) the effect of the intervention phase (from Pre-treatment to Post-treatment) on the groups (Suicide Behaviour and No-Suicide Behaviour) YSR subscale scores were examined.

Similar to previous analyses of the Pre-treatment groupings of syndromes associated with adolescent suicide, the effect of the treatment on YSR Internalising and Externalising subscales were examined. Table 5.11 contains the means and standard deviations for the Pre-treatment and Post-treatment YSR Internalising and Externalising Subscales for the No-Suicide Behaviour and Suicide Behaviour groups.

Table 5.11

Means and Standard Deviations of YSR Internalising and Externalising Subscales for the No-Suicide Behaviour and Suicide Behaviour Groups

YSR subscale		Suicide Behaviour [b]		No-Suicide Behaviour		Overall [c]	
		SD	*M*	*SD*	*M*	*SD*	*M*
Internalising	Pre	67.06	11.45	58.79	11.75	60.95	11.15
	Post	66.71	10.64	57.58	12.52	59.97	12.64
Externalising	Pre	63.00	12.73	58.67	12.18	59.80	12.38
	Post	63.18	10.19	59.21	11.61	60.25	11.32

Pre= Pre-treatment Post= Post-treatment
[a] N=17 [b] N=48 [c] N=65

All the YSR subscale scores for the Suicide Behaviour group remain above the clinical cut-off score (*T*-score greater than 60), while the No-Suicide Behaviour group subscale scores remain within the normal range.

Table 5.12 shows the results of two separate mixed ANOVAs examining the effects on the YSR Internalising and YSR Externalising (respectively) subscales for the two groups between Pre-treatment and Post-treatment.

Table 5.12

Results from Two Separate ANOVAs Investigating the Effects of Treatment on YSR Subscales Scores (Internalising/ Externalising) Over Time (Pre-treatment to Post-treatment).

Measure	*SS*	*Df*	*MS*	*F*	*P*	η^2	Observed Power
YSR-internalising							
Time	15.30	1	15.30	0.368	.546	.006	.092
Group x Time	4.59	1	4.59	0.111	.741	.002	.062
Error	2616.90	63	41.54				
YSR- externalising							
Time	3.24	1	3.24	0.080	.778	.001	.059
Group x Time	0.84	1	0.84	0.021	.886	.000	.052
Error	2540.19	63	40.32				

Note: Group (Suicide Behaviour versus No-Suicide Behaviour) Time (Pre-treatment to Post-treatment)
Two separate mixed ANOVAs were conducted on the YSR subscales (Internalising and Externalising). Assumption testing was conducted on the YSR Internalising and

Externalising subscales and all multivariate assumptions were met. The equality or error variance assumption was met for both Pre-treatment and Post-treatment YSR subscales scores. Equality of Variance-covariance assumption was also met. As can be seen in Table 5.12 there was no significant group differences on the YSR Internalising scales between Pre-treatment and Post-treatment. Similarly there were no significant group differences for the YSR externalising scores over time. However, the observed power revealed that there was insufficient power to detect a group difference if it was present (less than 80%), therefore only tentative support for the null hypothesis is provided.

5.6 Follow-up

Means and standard deviations of self-report measures at Post-treatment and Follow-up for the two groups are presented in Table 5.13.

Table 5.13

Means and Standard Deviations of Self-report Measures at Post-treatment and Follow-up for the No-Suicide Behaviour and Suicide Behaviour Groups

Measure	Time	Suicide Behaviour		*SD*	No-Suicide Behaviour			Overall		
		n	***M***		***n***	***M***	***SD***	***n***	***M***	***SD***
YSR	Post	16	66.75	9.79	50	59.44	12.39	36	61.44	12.29
YASR	F-up	15	59.29	10.66	22	51.68	14.74	36	54.64	13.67
BDI	Post	18	19.50	14.76	56	12.64	12.19	41	15.54	13.73
	F-up	14	10.77	11.31	28	9.57	10.56	41	10.77	11.31
ACS-P	Post	11	506.64	69.33	36	525.78	119.49	22	520.45	107.13
	F-up	10	492.67	89.92	13	568.00	98.81	22	537.18	100.48
ACS-NP	Post	11	509.27	115.92	36	454.75	106.41	22	492.86	112.84
	F-up	10	417.00	96.22	13	439.08	98.88	22	430.05	96.11

Post= Post-treatment F-up= Follow-up

It can be seen that both the No-Suicide Behaviour and Suicide Behaviour groups show a reduction in YSR/YASR, BDI and ACS-NP self-report measures from Post-treatment to Follow-up. The YASR scores for the Suicide Behaviour group fall to within the normal range over the Post-intervention phase. The No-Suicide Behaviour group remain within the normal range but show a similar reduction in the level of symptoms. The BDI scores

for the Suicide Behaviour group fall from the lower end of the *moderate to severe* depression category to the lower end of the *mild to moderate* depression category. The No-Suicide Behaviour group showed a small reduction at the lower end of the *mild to moderate* depression category. For both groups the rate of Productive coping remains within the "used sometimes" category over the Post-intervention phase, however for both groups the levels of Non-Productive coping fall from the "used sometimes" category to the "used very little" category. The patterns of correlations presented in Table 5.14 were similar to those at Pre-treatment and Post-treatment.

Table 5.14

Pearson Product Moment Correlations and Sample Sizes of the Follow-up Self-report Measures for the No-Suicide Behaviour and Suicide Behaviour Groups

	Suicide Behaviour			**No-Suicide Behaviour**		
Measure	YASR	BDI	ACS-P	YASR	BDI	ACS-P
BDI	.65 (13)	-	-	.68 (18)	-	-
ACS-P	.02 (10)	-.52 (10)	-	.34 (12)	-.16 (12)	-
ACS-NP	.98 (10)	.62 (10)	.03 (10)	.75 (12)	.15 (12)	.44 (13)

There was a strong positive correlation between the YASR and BDI for both groups. The YASR and ACS-NP also shared strong positive correlations for both groups. Once again there was a moderate negative correlation between BDI and ACS-P (higher levels of productive coping were associated with lower levels of depression). However, similar to the Post-treatment pattern of correlations, this relationship was not present in the No-Suicide Behaviour group. Once again, the strong positive correlation between BDI and ACS-P in both groups at Pre-treatment was no longer present at post-treatment or follow-up for the No-Suicide Behaviour. That is, for the participants without a history of suicidal behaviour there was no longer an association between depression and non-productive coping after treatment or at Follow-up.

To investigate changes to the self-report measures over the Post-intervention phase (Post-treatment to Follow-up) four separate mixed ANOVAs were conducted between groups across time on the YSR/YASR, BDI, ACS-P and ACS-NP (see Table 5.15).

Table 5.15

Results from Four Separate ANOVAs Investigating the Effects of Treatment on Several Self-report Measures (the YSR/YASR, BDI, ACS-P and ACS-NP) Over Time (Pre-treatment to Post-treatment).

Effect Measure	*SS*	*df*	*MS*	*F*	*p*	η^2	Observed Power
YSR/YASR							
Time	806.86	1	806.86	7.48	.010	.180	.757
Group x Time	1.30	1	1.30	.01	.913	.000	.051
Error	3666.52	34	107.84				
BDI							
Time	694.21	1	694.21	7.57	.009	.163	.765
Group x Time	59.08	1	59.08	.64	.427	.016	.123
Error	3575.89	39	91.69				
ACS-P							
Time	1337.49	1	1337.49	.259	.616	.013	.077
Group x Time	9781.12	1	9781.12	1.90	.184	.087	.259
Error	103127.06	1	5156.35				
ACS-NP							
Time	50314.07	1	50314.07	10.98	.003	.354	.883
Group x Time	11427.52	1	11427.52	2.49	.130	.111	.324
Error	91637.11	20	4581.86				

Note: Group (Suicide Behaviour versus No-Suicide Behaviour) Time (Post-treatment to Follow-up)

There were no difference between the two group's self report measures over time. However, the within subjects effects (time) from each mixed ANOVA showed that (once Bonferroni corrections were conducted for four comparisons, using the adjusted α of 0.0125) there was a significant change over time for both groups on mental health symptoms (YSR/YASR), depression (BDI) and ACS Non-Productive coping (ACS-NP). There was no significant change in the levels of productive coping (ACS-P). However, on the remaining analyses, the observed power revealed that there was insufficient power to detect a group difference if it was present (less than 80%), therefore only tentative support for the null hypothesis can be found for these results. Table 5.15 shows that there was a reduction in mental health symptoms and depression for both groups. There was also a decrease in the level of non-productive coping (ACS-NP). As can be seen from Table 5.13, the mental health symptoms (YSR/YASR) for all participants fall from the clinical range to the normal range at Follow-up. Similarly, the depression scores (BDI) reduce over time to the lowest end of the *mild to moderate* depression category (a score of below 10 indicates an *asymptomatic* category). Overall, there is a significant reduction in Non-

Productive coping styles, which fall from the "used sometimes" category to the "used very little" category at Follow-up.

Exploratory Analyses of the YSR Subscales at Follow-up. To further explore the group differences on mental health symptom profiles (YSR/YASR Internalizing and Externalsing subscales) the changes over the post-intervention phase (from Post-treatment to Follow-up) on the groups (Suicide Behaviour and No-Suicide Behaviour) YSR subscale scores were examined.

The changes to the YSR/YASR Internalising and Externalising subscale scores were examined for the two groups over the post-intervention phase. Table 5.16 contains the means and standard deviations for the Post-treatment and Follow-up YSR/YASR Internalising and Externalising subscales for the No-Suicide Behaviour and Suicide Behaviour groups.

Table 5.16

Means and Standard Deviations of YSR/YASR Internalising and Externalising Subscales for the No-Suicide Behaviour and Suicide Behaviour Groups

		Suicide Behaviour [b]		No-Suicide Behaviour [a]		Overall [c]	
YSR/YASR subscale		*M*	*SD*	*M*	*SD*	*M*	*SD*
Internalising	Post	66.71	10.64	57.58	12.52	59.97	12.64
	F-up	58.33	9.22	52.15	13.06	54.47	11.99
Externalising	Post	63.18	10.19	59.21	11.61	60.25	11.32
	F-up	53.58	9.50	52.25	10.54	52.75	10.03

Post= Post-treatment F-up=Follow-up
[a] N=12 [b] N= 20 [c] N= 32

Table 5.16 shows that the YSR/YASR Internalising scores significantly reduced between Post-treatment and Follow-up. Further, the YSR/YASR Externalising scores significantly reduced during the post-intervention phase. For the Suicide Behaviour group, both Internalising and Externalising subscales fell from the clinical range Post-treatment to the normal range of symptoms at Follow-up. However, for the No-Suicide Behaviour group, these scores remained within the normal range of symptoms. Table 5.17 shows the results of two separate mixed ANOVAs examining the effects on the YSR/YASR Internalising and Externalising subscales for the two groups between Post-treatment and Follow-up.

Table 5.17

Results from Two Separate ANOVAs Investigating the Effects of Treatment on YSR/YASR Subscales Scores (Internalising/ Externalising) Over Time (Pre-treatment to Post-treatment).

Measure	*SS*	*df*	*MS*	*F*	*p*	η^2	Observed Power
YSR/YASR Internalising scale							
Time	994.39	1	994.39	11.650	.002	.280	.910
Group x Time	89.43	1	89.43	1.048	.314	.034	.168
Error	2560.56	30	85.35				
YSR/YASR Externalising scale							
Time	579.70	1	579.70	7.33	.011	.196	.745
Group x Time	102.70	1	102.70	1.29	.264	.041	.197
Error	2373.23	30					

Group (Suicide Behaviour versus No-Suicide Behaviour) Time (Post-treatment to Follow-up)

Assumption testing was conducted on the YSR/YASR Internalising and Externalising subscales and all multivariate assumptions were met (*Box's M* = 2.59, *F*(3, 17832)=.79, *p*=.49; *Box's M* = 5.21, *F*(3, 17832)=1.59, *p*=.19 respectively). The equality of error variance assumption was met for both Post-treatment YSR and Follow-up YASR subscales scores. Equality of Variance-covariance assumptions were also met. As can be seen in Table 5.17 there was no significant group differences on the YSR/YASR Internalising scales between Post-treatment and Follow-up. However there was a significant effect of time on the YSR/YASR Internalising and Externalising effects once a Bonferroni correction was performed (alpha for two comparisons was set at .025). However, on the group-by-time analyses, the observed power revealed that there was insufficient power to detect a difference if it was present (less than 80%), therefore only tentative support for the null hypothesis can be found for these two results.

Figures 5.1 and 5.2 show the changes to the scores over the course of the program.

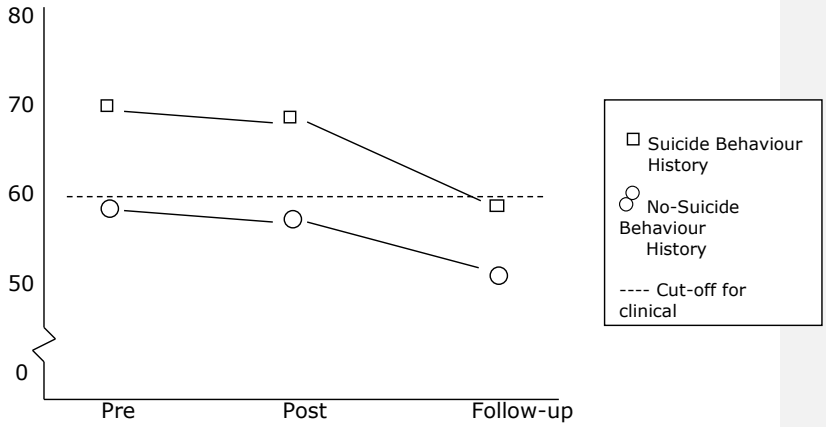

Figure 5.1. *Changes to the YSR/YASR Internalizing Scores from Pre-treatment to Follow-up*

Figure 5.1 shows a similar pattern, and proportion, of reductions over time between the Suicide Behaviour and Non-Suicide Behaviour group. Of interest is that the Suicide Behaviour group falls below the clinical cut-off at Follow-up.

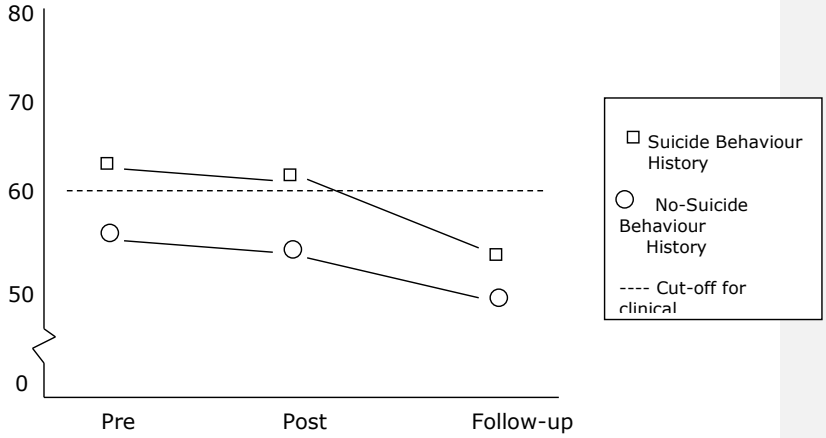

Figure 5.2. *Changes to the YSR/YASR Externalizing Scores from Pre-treatment to Follow-up*

Similar to Figure 5.1, Figure 5.2 shows a similar pattern, and proportion, of reductions over time between the Suicide Behaviour and Non-Suicide Behaviour group. Of interest is that the Suicide Behaviour group is clearly below the clinical cut-off at Follow-up.

Effect of Participant Dropout. As there was a moderate amount of attrition from Post-treatment to Follow-up, several analyses were conducted in order to determine whether participants who did not complete the trial (through to Follow-up) had significantly different self-report measures that those participants who did complete the trial. Table 5.18 shows the means and standard deviations of the Pre-treatment self-report measures of those participants who were followed-up and those participants who were not followed-up.

Table 5.18

Means and Standard Deviations of Self-report Measures at the Pre-treatment Stage for the Followed-up and Not Followed-up Groups

	Followed-Up			**Not Followed-Up**		
Measure	*n*	*M*	*SD*	*n*	*M*	*SD*
YSR	37	63.86	11.38	27	59.44	11.41
BDI	40	18.03	12.18	34	12.71	9.15
ACS-P	25	532.84	94.75	24	491.20	121.37
ACS-NP	25	490.24	103.74	24	449.17	96.31

A between groups MANOVA was conducted to determine whether there were any significant differences between those participants who were followed-up and those who were not followed-up on their pre-treatment self report measures (YSR, BDI, ACS-P, and ACS-NP). The analyses revealed that there were no significant differences ($\eta^2 = .075$, $F(4, 56) = 1.41$, $p = .347$, power=.335). However, the observed power revealed that there was insufficient power to detect a group difference if it was present (less than 80%), therefore only tentative support for the null hypothesis is provided.

5.7 Power and Sample Size

In order to determine the required sample size for future studies to reach statistical significance, a power analysis was conducted. Cohen's tables were used to determine the sample size needed to detect the moderately small effect size (.03) common to most psychological interventions, with 80% confidence (Cohen, 1998).

These tables revealed that a sample size of 131 would be required to confidently accept the null hypothesis.

5.8 Clinical Outcomes

It was important to consider the outcomes of the study in clinical terms, that is, the presence or absence of pathology (incidence in comparison to severity of symptoms). Second, post-intervention suicidal behaviour rates were also examined.

Incidence of psychopathology. The number of participants who fall within and outside of the clinical range on mental health measures (YSR/YASR and BDI) at pre and post-treatment and at follow-up is presented below (Table 5.19).

Table 5.19

Number of Participants, in the Clinical and Non-clinical Range of the YSR, YASR and BDI for the Suicidal Behaviour and No-suicidal Behaviour Groups at Pre and Post-treatment and Follow-up.

		Suicide Behaviour Group		No-suicide Behaviour Group	
Time	Measure	Clinical	Non-clinical	Clinical	Non-clinical
Pre					
	YSR	13 (81%)	3 (19%)	25 (53%)	23 (47%)
	BDI	17 (95%)	1 (5%)	37 (62%)	19 (38%)
Post					
	YSR	12 (75%)	4 (25%)	25 (53%)	23 (47%)
	BDI	13 (72%)	5 (28%)	22 (41%)	33 (59%)
Follow-up	YASR	6 (40%)	9 (60%)	8 (36%)	14 (64%)
	BDI	6 (43%)	8 (57%)	8 (13%)	18 (87%)

On both measures, the Suicide Behaviour group had a greater incidence of psychopathology and depressive symptoms. On the BDI, the Suicide Behaviour group showed a 23% reduced incidence Post-treatment and a 52% reduced incidence at Follow-up compared to a 25% and 53% reduction in the No-Suicide Behaviour group. On the YSR/YASR, the Suicide Behaviour group showed a 6% reduced incidence at Post-treatment and a 41% reduction at Follow-up. This is in comparison to no change at Post-

treatment and 15% reduction at Follow-up in the No-Suicide Behaviour group. Compared with the No-Suicide Behaviour group, the Suicide Behaviour group showed a better rate of reduction in the incidence in psychopathology at Post-treatment and at Follow-up.

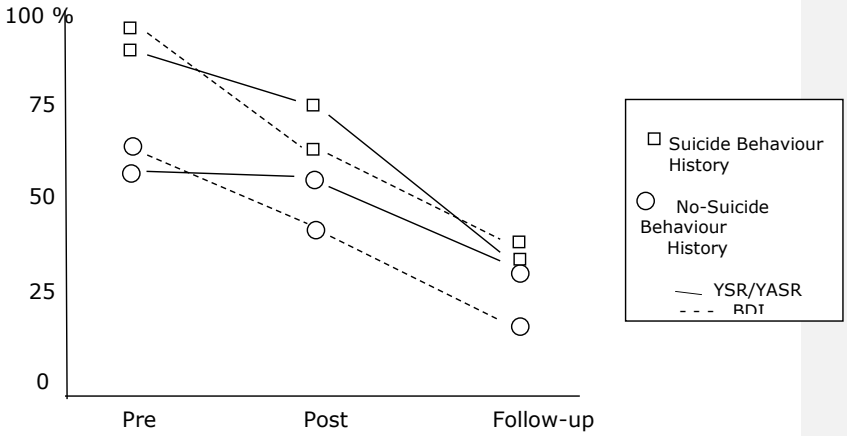

Figure 5.3. *The Percentage of YSR/YASR and BDI Scores in the Clinical Range for Both Groups*

Figure 5.3 shows the percentage of participants scoring in the clinical range at the three data collection points. Interestingly, the Suicide Behaviour Group and No-Suicide Behaviour Group are distinguishable at Pre-treatment and Post-treatment, but show comparable rates of psychopathology (YSR/YASR) at Follow-up.

Suicidal behaviour in the Post-intervention phase. With regard to suicidal behaviour outcomes, those participants who reported suicidal behaviour in the time between Post-treatment and Follow-up reduced from 17 (Pre-treatment) to a total of 9 at Follow-up (see Table 5.20).

Table 5.20

Number of Participants, and Mean YSR/YASR, BDI and ACS-P and ACS-NP Scores for Suicidal Behaviour and No-suicidal Behaviour Participants Who Reported Suicidal Behaviour in the Post-intervention Phase.

Time	Number and Measure	Suicide Behaviour Group	No-Suicide Behaviour Group
Post	*n*	17 (100%)	39 (100%)
	Mean YSR total	70.45	60.77
	Mean BDI total	23.54	14.74
	ACS – Productive	509.75	541.26
	ACS – Non-productive	549.75	465.33
Post-intervention Suicidal Behaviour	*n*	5 (29%)	4 (10%)
	Mean YASR total score	60.28	55.33
	Mean BDI total score	18.14	14.83
	ACS – Productive	469.80	589.66
	ACS – Non-productive	453.40	348.66
No Post-intervention Suicidal Behaviour	*n*	12 (71%)	35 (90%)
	Mean YASR total score	52.50	49.07
	Mean BDI total score	4.40	7.80
	ACS – Productive	574.66	529.00
	ACS – Non-productive	379.33	449.87

The rate of recidivism in those participants who had a pre-treatment history of suicidal behaviour was 29% (or 5 individuals). However, of the 9 who reported suicidal behaviour during the post-intervention phase, 4 had not shown such behaviour prior to treatment. Therefore the proportion of those participants who did sho suicidal behaviours in the post-intervention phase who had a pre-treatment history of such behaviour represented only slightly more than half. There was no known occurrence of completed suicide in any participant in the study.

5.8 Case Studies

The following two case studies are described to illustrate typical clinical presentations, treatment effects and long-term follow-up outcomes of the Suicide Behaviour group and No-Suicide Behaviour groups respectively.

Case A: Female with pre-treatment suicidal behaviour. Aged 16, Case A (No. 1597) presented at the time of treatment with a history of emotional and physical abuse, substance abuse, poor adult relationships, low self-esteem, eating disorder, depression, family relationship problems, chronic environmental instability, and a parent with severe mental illness. She had a pre-treatment history of self-harm (cutting her wrists) one year prior to treatment. The primary problem prior to treatment was *family issues*.

At Pre-treatment, the highest elevated syndrome scale of the YSR was the *somatic complaints* scale (*T*=98), followed by *anxious / depressed* scale (*T*=92), *delinquent behaviour* (*T*=77), *attention problems* (*T*=75), *aggressive behaviour* (*T*=70) and *withdrawn* (*T*=66). The remaining two syndrome scales (*social problems* and *thought problems*) were the only scales not in the clinical range. Both the Internalising and Externalising subscales were within the clinical range. Table 5.21 shows Case A's YSR/YASR Total, Internalising and Externalising *T*-scores at all three data collection points.

Table 5.21

Case A: YSR Total, Internalising and Externalising T-scores at Pre-treatment, Post-treatment and Follow-up

YSR/YASR Scale	Pre-treatment	Post-treatment	Follow-up
Total	81	76	61
Internalising	85	77	59*
Externalising	73	77	65

* denotes change to normal level of symptoms from previous time

As can be seen from Table 5.21, YSR/YASR Total and Internalising scores reduced, but stayed in the clinical range Post-treatment, reducing to just above the clinical cut-off, and in the normal range respectively at Follow-up. Surprisingly, the Externalising subscale increased at Post-treatment, but reduced at Follow-up. At Post-treatment, the syndrome scales in the clinical range had reduced from a range between a *T* score of 14 to 1 (mean of 6.66). However, they all still remained in the clinical range. By Follow-up, all syndrome scales reduced again (by a *T* score range of 21 to 2, mean of 8.66), with only

somatic complaints (*T*=68) and *aggressive behaviour* (*T*=67) being in the clinical range, and *anxious / depressed* being on the cut-off (*T*=60). This data suggests a clear and consistent trend of reduced symptoms in the areas of greatest pathology following treatment, but that a less pathological clinically picture did not transpire until Follow-up. However, even then there were still some clinical levels of some symptoms.

At Pre-treatment, depressive symptoms were reported in the *extremely severe* range. *Suicidal Ideation* was present with a score of 1: "I have thoughts of killing myself, but I would not carry them out", in addition to *Pessimism* was also endorsed with a score of 2: "I feel I have nothing to look forward to". Table 5.22 shows that at Post-treatment symptoms remained at the lower end of the *extremely severe* range. *Suicidal Ideation* and *Pessimism* were still present. At Follow-up, symptoms had clearly reduced to the *asymptomatic* range and *Pessimism* and *Suicidal Ideation* were not present.

Table 5.22

Case A: BDI Total, Suicidal Ideation Item and Pessimism Item Scores at Pre-treatment, Post-treatment and Follow-up

BDI	Pre-treatment	Post-treatment	Follow-up
Total	38	31	5*
Suicidal Ideation	1[a]	2	0*
Pessimism	2[b]	2	1

[a] item description: *I have thoughts of killing myself, but I would not carry them out*
[b] item description: *I feel I have nothing to look forward to*
* denotes change to asymptomatic category from previous time

This data suggest that immediately following treatment significant depressive symptoms, including pessimism and suicidal ideation remained. In the long-term, these symptoms were not present with the exception of some minor pessimism.

As can be seen in Table 5.23, Productive coping increased following treatment (to "sometimes") and remained at this level at Follow-up. Non-Productive coping styles were used more than Productive coping styles both at Pre and Post-treatment. However, the frequency of Non-Productive coping styles reduced substantially at Follow-up (from "frequently" to "very little").

Table 5.23

Case A: ACS Productive and Non-Productive Scores (with categories in parenthases) at Pre-treatment, Post-treatment and Follow-up

ACS	Pre-treatment	Post-treatment	Follow-up
Productive	49 ("very little")	53 ("sometimes")	66 ("sometimes")
Non Productive	79 ("frequently")	75 ("frequently")	49 ("very little")

At Pre-treatment, w*ishful thinking* was the most commonly used coping style (score of 96 – "used a great deal"), followed by *self-blame* (score of 95 – "used a great deal") and *keep problems to myself* (score of 90 – "used a great deal"). At Post-treatment, *self-blame* was the most frequently used coping style, was still in the same category of use (score of 90 – "used a great deal"), but had reduced slightly. *Worry*, and *ignore the problem* increased in frequency (score of 84 - "used frequently", and score of 90 – "used a great deal" respectively) from Pre-treatment to become the second most often used approaches. *Keep problems to myself* reduced by 10 points into the "used frequently" category (score of 80). At Follow-up, the most frequently used coping styles was *solve the problem* (score of 96 – "used a great deal"). Additionally, *seek social support* (score of 80), *seek relaxing diversions* (score of 77) and *focus on the positive* (score of 70), were all in the "used frequently" category. The least used coping style at Follow-up was *seek professional help* (score of 20 – "not used at all").

This data suggests that following treatment there was more frequent use of Productive coping styles, which continued through to Follow-up with more productive problem-focused, positively and socially orientated, and less self-punishing styles of coping.

Follow-up data collection and clinical history was conducted at age 21, 4 years and 5 months after treatment was completed. At this time Case A was still living with her family of origin and working full-time. She reported high levels of social, work and family functioning (YASR sections I, III, IV and V).

Stressful life events during the post-intervention phase included getting into substance abuse (Cannabis), death of a relative, losing a job, breaking up with a boy-friend, quitting school and starting a new school, beginning to work, parent losing a job, conflict with

parents, having acne and being overweight, someone new moving into the family home, making new friends, working in the hospitality industry. This averages to nearly 3 stressful life events per annum. There were no reports of self-harm or suicide attempts during the post-intervention phase. However, there were 2 brief periods lasting approximately 1 month and 6 months each (1 and 4 years following treatment) of feelings of sadness and depression.

On a purpose designed survey, she yielded high self-reported ratings of "*feelings of connectedness or closeness"*: family = 8/10; friends = 8/10; and parental support = 10/10, but rated feeling poorly connected to her work (2/10). She describes the "biggest problem she has had to deal with" since treatment was being "committed to school and work," that the biggest positive change was "feeling more motivated." She reports that treatment helped with her "feelings of insecurity" by increasing her "self-esteem". She described the "outdoor activities (rafting and camping), and using a *thought diary* to monitor her self talk" as what helped her most.

In Summary, Case A presented with a range of risk factors for suicide and suicidal behaviour including a pre-treatment history of suicide behaviour (wrist-cutting), depression, emotional and physical abuse, substance abuse, poor adult relationships, low self-esteem, eating disorder, family relationship problems, chronic environmental instability, and a parent with severe mental illness. At Pre-treatment, she showed symptoms of clinical concern, most notably involving somatic complaints, depression, anxiety, delinquent and aggressive behaviour, attentional problems and withdrawal. Her Post-treatment symptom profile showed some minor change: A consistent trend towards fewer symptoms overall and a reduction in the higher syndrome scales to non-clinical levels with the exception of *somatic complaints*, *aggression* and *depressed / anxious* symptoms. Further, she showed an increased use of Productive coping at Post-treatment and a marked reduction in Non-Productive coping at Follow-up. Further, at Follow-up, a more problem-focused, positively and socially orientated, and less self-punishing styles of coping styles were present with a substantial concomitant absence of symptomatology, particularly depressive symptoms. In terms of overall quality of life, she reported high levels of satisfaction in major life domains, and the presence of protective factors such as predominantly life enhancing attitudes and feelings of connectedness to family and friends. She claims that the Wilderness Adventure Therapy and specific Cognitive-behavioural group therapy components were the most helpful aspects of treatment.

Case B: Female with no pre-treatment suicidal behaviour. Presenting problems. Aged 17, Case B (No. 2895) presented at the time of treatment with a history of emotional and sexual abuse, poor peer relationships, low self-esteem, depression, anxiety, family relationship problems and a family history of mental illness. The primary problem prior to treatment was *anxiety problems*.

At Pre-treatment, the highest elevated syndrome scale of the YSR was the *anxious / depressed* scale (*T*=77), followed by *withdrawn* (*T*=70), both in the clinical range, and *social problems* (*T*=65), just below the clinical cut-off score. With the exception of the Internalising sub-scale (which is comprised of these 3 syndrome scales), the Externalising and all other syndrome scales were within the normal range. Table 5.24 shows YSR/YASR Total, Internalising and Externalising *T*-scores at all three data collection points.

Table5. 24

Case B: YSR/YASR Total, Internalising and Externalising T-scores at Pre-treatment, Post-treatment and Follow-up

YSR/YASR Scale	Pre-treatment	Post-treatment	Follow-up
Total	62	60	51*
Internalising	69	61	55*
Externalising	55	59	47

* denotes change to normal level of symptoms from previous time

As can be seen from Table 5.24, YSR/YASR Total and Internalising scores reduced, but stayed in the clinical range Post-treatment, reducing to normal at Follow-up. Similarly, at Post-treatment, the three most elevated syndrome scales had reduced, all 3 now falling into the non-clinical range: *anxious / depressed T*=65; *withdrawn T*=62; *social problems T*=61. This data suggests clinically meaningful reductions in the most clinically relevant areas of symptoms immediately following treatment, and, with the exception of some withdrawn behaviour, almost complete absence of problems in the long-term.

At Pre-treatment, depressive symptoms were reported in the *mild to moderate range*. *Suicidal Ideation* was present with a score of 1: “I have thoughts of killing myself, but I would not carry them out”, in addition to *Pessimism* which was also endorsed with a

score of 1: "I feel discouraged about the future". Table 5.25 shows that at Post-treatment symptoms remained at the lower end of the *mild to moderate* range. *Suicidal Ideation* and *Pessimism* were still present. At Follow-up, symptoms had clearly reduced to the *asymptomatic* range and *Pessimism* and *Suicidal Ideation* were not present.

Table 5.25

Case B: BDI Total, Suicidal Ideation Item and Pessimism Item Scores at Pre-treatment, Post-treatment and Follow-up

BDI	Pre-treatment	Post-treatment	Follow-up
Total	12	11	5*
Suicidal Ideation	1[a]	1	0*
Pessimism	1[b]	1	0*

[a] item description: *I have thoughts of killing myself, but I would not carry them out*
[b] item description: *I feel discouraged about the future*
* denotes change to asymptomatic category from previous time

This data suggest that immediately following treatment some depressive symptoms, including pessimism and suicidal ideation remained. In the long-term, these symptoms were ostensibly absent.

As can be seen in Table 5.26, Non-Productive coping styles were used more than Productive coping styles at Pre-treatment. However, the frequency of Non-Productive coping styles reduced Post-treatment (from "frequently" to "sometimes"), and this pattern of reduced use continued at Follow-up.

Table 5.26

Case B: ACS Productive and Non-Productive Scores (with categories in parenthases) at Pre-treatment, Post-treatment and Follow-up

ACS	Pre-treatment	Post-treatment	Follow-up
Productive	54 ("sometimes")	53 ("sometimes")	53 ("sometimes")
Non Productive	72 ("frequently")	68 ("sometimes")	52 ("sometimes")

Spiritual support was the most commonly used coping style (score of 100 – "used a great deal") both Pre-treatment and Post-treatment, but this reduced to "used sometimes" (score of 60) at Follow-up. At Follow-up, the most frequently used coping style was *solve the problem* (score of 72 – "used frequently") and the least used coping style was *seek*

professional help (score of 20 – "not used at all"). This data suggests that following treatment there was less frequent use of Non-Productive coping styles, and by Follow-up a more productive, active, independent and problem-focused coping style was being used.

Follow-up data collection and clinical history was conducted at age 21, 4 years and 3 months after treatment was completed. At this time Case B was living with her spouse and working part-time. She reported high levels of social, marital, family and work functioning (YASR sections I, III, IV and V).

Stressful life events during the post-intervention phase included starting a new course of study, beginning to work, a relative getting sick, moving house twice, making new friends, getting married, and getting pregnant, This averages to 2 stressful life events per anum. There were no reports of self-harm or suicide attempts during the post-intervention phase. However, there were 2 brief periods lasting approximately 3 weeks each (1 and 2 years following treatment) of feelings of sadness or depression.

On a purpose designed survey, she yielded high self-reported ratings of "*feelings of connectedness or closeness"*: family = 9/10; friends = 7/10; school/work = 7/10; and parental support = 9/10. She describes the "biggest problem she has had to deal with" since treatment was completing her tertiary course of study, and that the biggest positive change was her improved "relationship to her father, and attitude generally." She reports that treatment helped with "friendships, and being more confident and outgoing." She described that "being in a group, and group work generally… the outdoor activities, overcoming my fear of heights, such as with rock-climbing" as what helped her most.

In Summary, Case B presented with a range of risk factors for suicide and suicidal behaviour including depression and anxiety, suicidal ideation, history of sexual and emotional abuse, family history of mental illness, poor peer and family relationships and social withdrawal. At Pre-treatment, she showed symptoms of clinical concern, most notably involving depression, anxiety, withdrawn behaviour and social problems. Her Post-treatment symptom profile showed some minor change: A consistent trend towards fewer symptoms overall and a reduction in the highest syndrome scales to non-clinical levels. Further, she showed a clear reduction in Non-Productive coping following treatment, most frequently *spiritual support*, which she used a great deal. By Follow-up, more productive, active, independent and problem focused coping styles were being used

with a concomitant absence of symptomatology. In terms of overall quality of life, she reported high levels of satisfaction in major life domains, and the presence of protective factors such as life enhancing attitudes and feelings of connectedness to others. She claims that the group therapy experience generally, the Wilderness Adventure Therapy component and exposure to a feared situation in particular, were the most helpful aspects of treatment.

Chapter 6

Discussion

6.1 Quality of the Data

As with any clinical study there was an issue with missing data. There is a slightly higher completion rates for two of the self-report measures (the YSR and the BDI). Fewer participants completed the ACS (Productive and Non-productive scales) throughout the study. Participants sometimes declined completing the entire battery of questionnaires due to several factors. As they were voluntary participants in the research component of this intervention they were given the option of completing as many or as few questionnaires as they chose.

Data collection with clinical samples has inherent problems. Due to the normal developmental needs of adolescents to assert their independence, the request to participate in data collection may be used as an opportunity to demonstrate self-determination by non-compliance. At times, not all measures were completed because of the difficulty keeping the participants engaged in the data collection process. Further while data collection may have been completed at pre-treatment, due to issues of engagement, the problem may be exhibited at subsequent data collection point (i.e., Post-treatment and Follow-up). Additionally, tracking participants during the post-intervention phase was difficult as this population is frequently transient. This resulted in an inability to make contact with some participants to complete follow-up assessment.

While the dropout rate across the intervention phase was minimal, the drop-out rate over the Post-intervention phase was substantial for the No-Suicidal Behaviour group. This loss of data in the No-Suicidal Behaviour group, compared to the Suicidal Behaviour group, was due to a an administrative error which occurred when the treatment program was concluded. The first 20 of an alphabetically ordered collection of follow-up test proformas were destroyed accidentally prior to them being entered into the database. The original data capture rate at Follow-up for the No-Suicidal Behaviour group was 80% of the potential sample, however the data lost reduced this to 60% of the original No-Suicidal Behaviour sample. However since the loss was not associated with severity of

diagnosis, or response to treatment, the remaining data was assumed to be representative of the larger capture rate originally achieved. Therefore, the data used at Follow-up is representative of a high data capture rate for such a population, especially over a follow-up period that extended to more than 5 years in some cases.

None the less, in order to determine whether the loss of data (through administrative error and natural attrition in clinical intervention trials) changed the clinical characteristics represented in the present dataset, an analysis was conducted to determine whether there were any differences between the scores, on the four pre-treatment self report measures, of participants who were followed up and those who were not followed up. Analyses revealed no significant differences in the severity of mental health or depressive symptoms, nor differences in productive and non-productive coping styles of those who were followed up compared to those whose measures were not included in the final dataset. This adds further support for the previous suggestion that the data sample was in fact representative of the original data set collected.

In terms of distributional characteristics of the data, it should be noted that for the Suicidal Behaviour group the Post-treatment and Follow-up BDI scores were significantly skewed. The fact that the BDI scores for the Suicidal Behaviour group were skewed is not surprising as this group was characterised by higher levels of depressive symptoms. In such cases it is sometimes advisable to carry out transformations to address significant skew. However transformations were not performed as to statistically transformation well known, validated measures, with standardized scores and cut-offs, would render such data un-interpretable (Tabachnick & Fidell, 1995). Therefore the untransformed variables were kept in the analyses as they were of more use for comparisons of clinical ranges and cut-off scores, and the F-tests were fairly robust to non-normal data.

In addition, to ensure that the skew of the BDI scores did not have a detrimental impact on the analyses, special note of the equality of error variance was taken when carrying out

assumption testing for the ANOVAs using the BDI scores. In all cases the Levene's tests were non-significant, therefore it appears that the skew of the BDI scores did not have a detrimentally impact on the results. Further, to check whether transformation would have improved or changed the findings in the present study all the analyses were also conducted with the transformed BDI scores. Following this, the results from using the transformed variables did not differ from those found with the transformed variables anyway.

Previous research in this area has also shown that age and gender are associated with differential results on measures such as the YSR and BDI, and the clinical presentation of depressive and anxiety disorders (Frydenberg, 1997; Sawyer et al. 2000). However due to the relatively small sample in the present study, the addition of further variables to the ANOVAs was contraindicated as it would result in a greater decrease in statistical power. As can be seen from the results, several of the measures were approaching significance but perhaps did not reach the statical criteria due to the small samples sizes. Furthermore the main purpose of these analyses was to investigate group differences (i.e., Suicidal Behaviour compared to No-Suicidal Behaviour), not to examine gender or age effects. Analyses also revealed there were no group differences in gender or age between the two groups at Pre-treatment, therefore inclusion of these two variables may not have revealed any differences in the present data. Furthermore age or gender has been found to have no meaningful relationship to BDI scores (Beck & Steer, 1987), and the YSR is gender normed and has been specifically developed for the adolescent age group (Achenbach, 1991).

6.2 Differences Between Groups Prior to Treatment

Relationship between variables at Pre-treatment. **It was of interest to understand the relationship between the mental health symptoms, depression and coping styles at Pre-treatment for both groups. As would be expected there was a strong association between mental health symptoms (YSR) and levels of depression (BDI) for both groups. While the YSR measures a wider range of mental health symptoms (including anxiety and depressive symptoms) it would be expected that**

participants who reported feeling more depressed would also score higher on the YSR. In this way, these two measures show some overlap, in that that the BDI measures a subset of the overall mental health symptom profile. However, depression alone was an important risk factor in the present study, as depression is a key predictive factor in suicidal and self-harming behaviour. The correlation between these scales was not so high as to indicate that the BDI was redundant, suggesting this scale would contribute some unique variance.

Both groups also showed that those participants who reported using non-productive coping more frequently also reported higher levels of mental health problems and depression. As suggested previously non-productive coping does appear to be related to poorer functioning, such as depression. This finding is supported by previous studies (Aldwin, 1994; Frydenberg, 1997) that have found that ineffective coping was associated with, but not predictive of poorer psychological health.

However, and obverse to this, an interesting difference between the groups prior to treatment was that more frequent use of productive coping in the Suicidal Behaviour groups was associated with lower levels of depression, while there was no relationship between productive coping and depression in the No-Suicidal Behaviour group. Previous research suggests that productive coping would be associated with lower levels of depression, however it is interesting that this relationship only appeared in the Suicidal Behaviour group. It may be that individuals with a history of suicidal behaviour or self-harming may have had cause to actualise productive coping styles *because* of increased levels of depression, while those without these extreme behaviours do not exhibit increase productive coping in the face of increased levels of depression (and other mental health symptoms). It would be of interest to investigate this hypothesis in future studies to further explore the relationship between productive coping in those individuals with and without suicidal behaviours.

It is also interesting to note that there was only a low correlation between the ACS Productive coping and Non-Productive coping scales, for both groups, which provides further support for the discriminant validity of these measures. Therefore it is not the case that lower levels of productive coping necessarily concur with higher levels of non-productive coping: Participants may simultaneously report high levels of both Productive and Non-Productive coping on the ACS.

Comparisons of mean scores show that the Suicidal Behaviour group had consistently higher mental health symptoms, depression and non-productive coping prior to treatment than the No-Suicidal Behaviour group. However these differences were not statistically significant, indicating that both groups were experiencing a similar level of symptomatology prior to treatment.

Clinical interpretation of self-report measures prior to treatment. **The average level of mental health symptoms reported by both the Suicidal Behaviour and the No-Suicidal Behaviour group, fell within the clinical range of symptoms (*T*>60). As predicted the Suicidal Behaviour group's scores were slightly, but not significantly, higher than the No-Suicidal Behaviour group's. The depression scores of the Suicidal Behaviour group fell in the *moderate-severe* range, indicating that this group was experiencing a high level of depression as could be expected in individuals with current or past suicidal or self harm behaviour. The No-Suicidal Behaviour group's scores on the BDI fell into the slightly lower *mild-moderate* category, indicating that they were experiencing less depression than the Suicidal Behaviour group, but higher levels than in the normal population.**

Scores on the coping scales revealed that both groups reported using productive and non-productive coping, on average in the "used sometimes" range of frequency. This indicates that both groups utilised both productive and non-productive coping styles equally often, suggesting a less than optimal approach to coping. It could be suggested that a preference for productive coping styles would be associated with better functioning. The categorisation of "used sometimes" provides little information, but does allow a comparison of the frequency of use of productive and non-productive coping for the two groups, over the course of the treatment and follow-up.

Exploratory analyses. To further explore the coping styles of the two groups, the nine subscales of the ACS Productive coping and nine subscales of the Non-Productive coping scales were examined. Most subscale scores fell within the "used sometimes" category, (i.e., 50-69) however the No-Suicidal Behaviour group scores on the *Relaxation* subscale fell within the "used frequently" (i.e., 70-89) category. Although productive coping was reported more frequently in the No-Suicidal Behaviour group prior to

treatment, there were no statistically significant differences between the two groups' use of productive and non-productive coping.

Pre-treatment symptom clusters. The Suicidal Behaviour group reported higher scores on the YSR Internalising and Externalising subscales than the No-Suicidal Behaviour group, and was in the clinical range of mental health symptoms. The No-Suicidal Behaviour group fell within the normal range prior to treatment. Analyses revealed that the Suicidal Behaviour group were significantly more likely to present with a profile of internalised mental health symptoms (YSR withdrawn behaviour, somatic complaints and anxious / depressed symptoms). It is interesting that the level of depression (BDI scores) was not significantly different between the Suicidal Behaviour and No-Suicidal Behaviour groups, therefore the concept captured by the YSR internalising subscale may be a more pertinent measure of the Suicidal Behaviour group's symptom characteristics than estimates of levels of depressive symptoms alone. This finding suggests that *para*-depressive symptoms such as withdrawal behaviour and somatic complaints are characteristic of those who have a history of suicidal behaviour. Future studies might consider the use of the YSR internalising scores as a more sensitive measure of behaviours relevant to suicidal behaviour.

It is important to note that the No-Suicidal Behaviour group was a rigorous choice of control group, (both groups were referred for treatment and had clinical levels of mental health symptomatology) and is as stringent a comparison as one could chose. Group comparisons were made to examine any differential effects of the intervention on those individuals who had pre-treatment suicide attempts or self-harm behaviours and to those who did not. The potential to benefit from the treatment was comparable for both groups.

6.3 Effect of Treatment

Relationship between variables at post treatment. There were some changes to the relationships between the self-report measures at post-treatment. Similar to pre-treatment, there was a relationship between mental health symptoms (YSR) and depression (BDI) for both groups. Both measures correlated with Non-Productive coping. Again the Suicidal Behaviour groups had lower depression scores with increased use of productive coping (and no such relationship was seen in the No-Suicidal Behaviour group). One

notable change in the pattern of correlations was that, at pre-treatment Non-Productive coping (ACS-NP), was associated with depression, however at post-treatment this relationship was only seen for the Suicidal Behaviour group. That is, for participants with No-Suicidal Behaviour, there was no association between depression and non-productive coping after they completed treatment. This suggests that treatment might have reduced the impact that non-productive coping had on depressive symptoms.

However the analyses revealed that the interaction was not significant. There were no significant group differences in the way the scores on the four self-report measures changed over the course of treatment. Failure to show a significant change may be due to several factors. If the null hypothesis was, in fact, accepted then it would be concluded that there was no significant difference in the way the intervention affected the mental health, depression or coping styles of the two groups. However it would be inadvisable to conclude from these results that the intervention did not have any effect given the insufficient power of the sample size used, and that the control group was so similar to the experimental group. In the absence of a no-treatment control group it was not possible to test the hypothesis that the intervention was able to reduce psychological difficulties compared to an untreated individuals. The present study was only able to determine whether there was any differential effect of treatment on the clients with or without suicidal behaviour. None the less, it can be suggested that there was no significant difference in the effect that the treatment had on the two groups because both groups were comprised of individuals with high levels of psychological distress. Both groups were experiencing a similar, high level of psychological distress and treatment may have a similar impact on both groups. In fact, it is within reason to suggest that treatment had a similar, and not differential, effect on these two groups. It was still of interest to the present study to investigate such a hypothesis. Overall, there was no statistically significant reduction in the mental health scores, levels of depression or the use of productive and non-productive coping of either group from pre to post-treatment.

The present author suggests that this failure to reach statistical significance may be due to a lack of statistical power owing to the size of the sample. The observed power in all the non-significant analyses were small (i.e., below 10%), suggesting that a larger sample size would have been required to draw more equivocal conclusions from these analyses. Indeed, a sample size of 131 participants would have been required to achieve an 80% confidence level (Cohen, 1988). Without adequate power the null hypothesis can not be

accepted unequivocally, that is, there was no real difference between the two groups following treatment.

Further, compared with academic *efficacy* research of psychological interventions with children and adolescents, effect sizes of clinical *effectiveness* trials have been found to be very small, if not negative (Weisz & Jensen, 2001). Therefore a larger study is recommended to fully investigate the *efficacy* of this treatment in reducing mental health symptoms, depression and coping styles in these two groups. Also, in order to investigate the efficacy of this intervention a control group would be necessary. However, as previously stated, gaining ethical approval to have a clinical population in a control group, who would not undergo any treatment in the control period, is increasingly (and necessarily) frowned upon by research ethics committees.

When considering the lack of statistically significant changes to the two groups' scores over the intervention period it is important to consider that there may have been a measurement bias at both pre-treatment and post-treatment. At pre-treatment, the participants probably lacked insight into their conditions, or were reluctant to acknowledge the extent or severity of their mental health symptoms, perhaps as a means of coping with their psychological distress. Indeed, this notion is supported by Goldney, Fisher, Wilson and Cheok (in press) who found that mental health literacy does not increase simply with an increased experience of depression.

Additionally, participants had only minimal contact with the clinical staff who collected data at this point and may have been guarded about disclosure of sensitive information such as mental health symptoms. This could have resulted in participants reporting fewer symptoms than actually existed prior to treatment. However the psycho-educational effects and trust in confidentiality that probably resulted through treatment may have produced an increase in the participant's awareness of psychological symptoms and increased disclosure at post-treatment. Therefore, even if the treatment had caused a decrease in actual symptoms, the salience of the symptoms through increased awareness and disclosure may have resulted in an increase in the reporting of such symptoms at post-treatment. Concurrent ratings of symptoms by parents, carers or clinicians might address this type of measurement bias.

Post-treatment changes. Over the treatment phase, the self-report measures showed some group changes from the clinical to a normal category (i.e., a more functional category). The No-Suicidal Behaviour group's mental health symptoms (YSR) reduced from the clinical range to the normal range, while the Suicidal Behaviour group remained in the clinical range. The Suicidal Behaviour group did show some reduction in depression however, with their BDI scores falling to the cut-off score for *moderate-severe* depression. However the No-Suicidal Behaviour group scores remained in the pre-treatment *mild-moderate* category.

In the absence of a no-treatment control group with which to compare the impact of the treatment, the present study also utilized clinical categorisations and cut-off scores presented in the manuals of the self-report measures, to compare the mental health, depression and coping styles of the present sample to those of a normative sample. These comparisons revealed that there were some changes to the psychological functioning of the groups over the period of treatment. While the mental health symptoms reported by the Suicidal Behaviour group remained in the clinical range, the No-Suicidal Behaviour group's scores fell into the normal range. Further, the level of depression reported by the Suicidal Behaviour group reduced to just above the cut-off score that indicates *moderate-severe* depression. The No-Suicidal Behaviour group remained in the *mild-moderate* depression category. Most notably all scores on the mental health and depression measures decreased and all the productive coping scores increased.

While all the adolescent coping scores stayed within the broad category of "*used sometimes*" the greatest change in scores was the increased use of productive coping in the Suicidal Behaviour group following treatment. The frequency in the use of Non-Productive coping decreased. However these changes were non-significant and should be interpreted with caution.

Post treatment symptom clusters. To further explore the group difference in internalising and externalising symptoms (at pre-treatment), changes to the YSR subscales were examined over the treatment period. No significant group and time interaction was found indicating that there was no differential effect of the treatment on the two groups' internalising and externalising symptoms over the treatment period. Further, there was no change overall to the level of internalising symptoms. The post-

treatment scores were similar to the pre-treatment scores for both groups: The Suicidal Behaviour group remained in the clinical range, while all the No-Suicidal Behaviour group's subscale scores remained in the normal range. Once again the small sample size, and the relatively small effect size of clinical treatments (Weisz & Jensen, 2001), may have contributed to the present failure to reach statistical significance. The consistency of these scores over the period of treatment suggests that the Suicide Behaviour group have a propensity to internalise their mental health symptoms. Further, the YSR internalising subscale may be detecting a trait or personality characteristic of the Suicide Behaviour group. This finding is supported in a recent study that found that both the *anxious / depressed* and *self-destruct / identity problems* clinical syndrome scales were more effective in detecting suicidality than the Depression Self-Rating Scale (Ivarsson, Gillberg, Arvidsson & Broberg, 2002). These YSR subscales may therefore be useful to delineate these two client groups in future research in this area.

6.4 Follow-up

Relationship between follow-up self-report measures. The strong correlation between depression and mental health symptoms, seen at pre-treatment and post-treatment, was again present at Follow-up for both groups. This suggests that these two measures (YSR/YASR and BDI) were measuring related but distinct constructs in both groups. Similarly, mental health symptoms were associated with more frequent use of Non-Productive coping in both groups. This shows that the relationship between mental health problems and Non-Productive coping was seen consistently throughout the study (and in both groups). At Follow-up, depression was associated with more frequent use of Non-Productive coping and less frequent use of Productive coping in only the Suicidal Behaviour group. That is, for the Suicide Behaviour group, productive coping was associated with lower levels of depression consistently throughout the study.

There was a significant overall reduction in mental health symptoms, depression and non-productive coping for all participants over the post-intervention phase, but Productive coping scores did not change significantly over this period. These results could suggest that participants may have learnt through exposure to risk in the wilderness adventure

therapy treatment component, that risk does not always equate to a threat. In this case, their appraisal of threat (or stressful life event) may be altered to see the stressor as manageable, ultimately leading to a decreased use of non-productive coping (Seiffge-Krenke, 2000). Indeed, there is support in the literature for the idea that interventions that teach coping skills to adolescents result in a decreased use of non-productive coping, rather than increases in productive approaches (Cunningham et al., 1999; Cotta, 1999). This would be consistent with the concomitant improvement in mental health and depressive symptoms. Indeed, Seiffge-Krenke suggests that reliance on non-productive forms of coping, such as withdrawal, emerged as a significant predictor of adolescent symptomatology (2000).

There were no significant differences in how the two groups' scores changed over the post-intervention phase (i.e., no statistical interaction). As discussed previously, the two groups had a similar level of psychological distress, therefore a differential effect of treatment or any difference in the changes over the intervention phase between the two groups is within reason. It is not possible to determine whether this is due to the effects of the intervention, especially given the lack of statistically significant changes over the post-treatment period. However it may be possible that the decrease seen at Follow-up is due to the delayed benefits of treatment. The present author suggests that the psychological skills learned during treatment would not, in fact be captured immediately by coping measures post-treatment because of the relatively short time span (10 weeks). It may be better to evaluate treatment benefits after a period of time has lapsed post-treatment, during which such skills may have been integrated into the coping styles of the participants, for instance when they return to school. This then might have a greater impact on psychological functioning as coping with the normal environment improves. A multiple follow-up designed study that captured data sooner after post treatment would address this timing issue, say 4 to 6 weeks. Until such studies are conducted it may not be possible to draw any conclusions about the efficacy of the intervention, or the time frame in which the benefits are best assessed.

Interpreting Follow-up self-report measures. More importantly, there was a significant decrease in the number of mental health symptoms at Follow-up. The Suicide Behaviour group showed a reduction from well in the clinical range at Post-treatment to the normal range at Follow-up. The No-Suicide Behaviour group reduced to the normal

range from just below the clinical range cut-off immediately following treatment. Additionally, there was a significant reduction in BDI scores for both groups. The Suicide Behaviour group reduced from the *moderate-severe* range of depressive symptoms at Post-treatment to just within the cut-off for the *mild-moderate* range (close to the threshold for being asymptomatic). The No-Suicide Behaviour group reduced from the *mild-moderate* range at Post-treatment to just within the cut-off for this category (again close to the threshold for being asymptomatic). Both groups also showed a significant reduction in non-productive coping, with scores changing from the "used sometimes" to the "used very little" category.

In the context of the small sample size, these statistically significant effects are substantial, and of practical importance. Furthermore, even with a small sample size the significant findings also passed the conservative Bonferroni comparisons. The present author is therefore confident that these results indicate a clinically meaningful reduction in mental health symptoms.

Follow-up symptom clusters. Consistent with total YSR scores, both the YSR Internalising and Externalising scores significantly reduced over the post-intervention phase. There were no group differences in how the groups internalising or externalising symptoms changed over this period. Once again these changes occurred at the conservative alpha level, therefore these changes are interpreted to indicate a reliable reduction in Internalising and Externalising mental health symptoms over this period. As previously discussed, without a no-treatment control group, these reductions cannot be attributed to either the intervention, or follow-on effects from the intervention. Both groups were clearly within the normal range at Follow-up. The Suicidal Behaviour group's scores were well in the clinical range at Post-treatment for the Internalising subscale and this reduced to non-clinical levels at Follow-up. This suggests that while internalising symptoms remained at Post-treatment, by follow-up these symptoms had resolved to sub-clinical levels.

Clinical effects. Compared with the general population, these two groups had a markedly higher incidence of mental health symptoms than the general population. At Pre-treatment the Suicide Behaviour group had an incidence of mental health symptoms

approximately 6 ½ times greater than a normal population and the No-Suicide Behaviour group had an incidence four times greater (Sawyer et al., 2000).

Commented [MSOffice8]: Males 13-17 YSR total= 13.4%; Ext= 11.7; Int= 13.6 / Females 13-17 YSR total= 12.8; Ext= 14.1; Int= 10.7

Further, the reductions in the incidence of psychopathology over the course of the study indicate that the Suicide Behaviour group had a greater response to the treatment than did the No-Suicide Behaviour group. This is evident from the greater reduction in the incidence of mental health symptoms, as assessed at Post-treatment, in the Suicide Behaviour group (62% reduction) compared to the No-Suicide Behaviour group (45% reduction).

This outcome suggests that individuals who are experiencing levels of distress associated with suicidal behaviour may benefit more from this intervention than those with no pre-treatment history of suicidal behaviour. It would be of interest to future studies to investigate further which factors influence the efficacy of this intervention in clients with and without a history of suicidal behaviour. It could be suggested, that individuals who have been referred due to a history of suicidal behaviour may be experiencing a different level of distress and perceive they have more to gain from such an intervention. Those in the No-Suicidal Behaviour group may be experiencing less distress by comparison, therefore a ceiling effect produces less room for change. Further, it would also be of interest to investigate to what degree these programs are perceived by participants as helpful. It needs to be considered that some individuals may find that involvement in treatment programs such as this may exacerbate negative self-concepts or feelings of stigmatisation.

The greater improvement seen in the Suicide Behaviour group may also suggest that those adolescents who have experienced suicidal behaviours have greater insight into their need for psychological treatment. Their suicidal behaviours being salient indicators they are experiencing difficulties. The consequences of these behaviours may produce an increase in the desire to seek treatment (i.e., because of harm to oneself, distress experienced by significant others, a fear of death). In this way, a heightened awareness about current psychopathology would, arguably, increase the motivation in those clients with a history of suicidal behaviours to reduce their mental health symptoms. Further, the two-thirds reduction in suicidal behaviours post-treatment in the Suicide Behaviour group, provides

some support for these suggestions. However future studies would need to examine this research question in greater detail.

It would also be fruitful to examine how the intervention influenced coping styles. That is, did the coping behaviours learnt in the treatment phase go on to be utilised by participants in the post intervention period. In times of increased stress, the participants' reduced use of non-productive coping may have reverted to their previously higher use of non-productive coping. It would also be interesting to investigate whether the participants were experiencing acute stressors at the time of participation in the treatment, and whether the presence of these stressors influenced their coping responses and response to treatment.

With regard to suicide behaviour post-treatment, it is interesting that 10% of those with no pre-treatment history of suicidal behaviour report that they did exhibit suicidal behaviours in the post intervention phase. Several explanations will be discussed. Some research suggests that group therapy may have a contagion effect with participants who did not formerly exhibit detrimental behaviour (Dishion, McCord & Poulin, 1999). Alternately, over the course of treatment, participants may have formed a greater rapport with the treatment providers involved in data collection, and be more likely to admit to suicidal behaviour, compared to Pre-treatment. It may be that therapy has enabled them to communicate their distress more easily about their suicidal behaviour, that they then report it at Follow-up. However, all participants were asked at Follow-up if they had ever experienced suicidal behaviours prior to treatment. None with suicidal behaviour in the post intervention phase who had not disclosed this at pre-treatment reported having pre-treatment suicidal behaviour. The simplest explanation for the occurrence of suicidal behaviours at follow-up in 10% of participants who had not previously reported such behaviour (prior to treatment) may then be that both groups had high levels of risk factors (depression and mental health symptoms) when they sought treatment. Therefore, the occurrence of suicidal behaviours following the intervention in clients with no previous history may be in keeping with the incidence in high-risk groups. Indeed, in the epidemiological study by Sawyer and colleagues (2000), they found that 10% of adolescents with high levels of emotional or behavioural problems (in the 75th-90th percentile as assessed by the YSR) report making a suicide attempt during the preceding 12 month period.

6.5 Relevance of Current Findings to the Literature

While the current study failed to show a differential effect of treatment on adolescents with and without a history of suicidal behaviour, it did show that there was a reduction over the post-intervention period. Weisz, Donenberg, Han and Kauneckis (1995), and Weisz and Jensen (2001) have highlighted the methodological obstacles that clinic-based studies face that limits their ability to yield significant findings that may be relevant in this study: Particularly, the use of mixed and eclectic therapeutic approaches, and the use of a heterogenous sample. The lack of a no-treatment group means that it remains unclear whether the benefit was due to a delayed effect from treatment or another seasonal or maturational factor. However, overall neither group experienced an increase or continuation of psychological difficulties assessed in this study, as both groups' mental health and depressive symptoms reduced to within a normal range. This shows that the current treatment program had no deleterious effects on the participants, and, in fact follow-up outcomes were promising.

Further, the Suicidal Behaviour group appeared to present with higher levels of symptomatology, and were more frequently at a clinical level, but reduced to levels equivalent to the No-Suicidal Behaviour group at follow-up. This result contrasts to life course outcomes reported for untreated individuals (Ferdinand et al., 1995; Lewisohn et al., 1999) and strengthens the case for the effectiveness of the present treatment. This may be as a result of the greater intensity of treatment provided in the intervention assessed in the present study. Previous studies have generally offered a fairly low intensity or brief intervention by comparison (Hawton et al., 1998).

Previous research would strongly suggest that adolescents with higher levels of symptoms are at higher risk of continuing mental health problems and would evidence poorer outcomes in the long-term for these clients (Beautrais, 1999; Rutter, 1990). The results from the present study suggest this is not the case, and that high-risk individuals do benefit to an equal degree from treatment and have the potential for good outcomes. Given that the current literature reports few effective treatments (in the immediate or short-term for adolescents with suicidal behaviour), the results from the present study are promising. Further, these outcomes suggest that the current intervention warrants continued investigation, and further development of the methodology (see section 6.8).

A unique feature of the present study is the longevity of the follow-up period, which spans from adolescence through to young adulthood. This is a high-risk period for the development of on-going adult mental health problems (Lewisohn et al., 1999; Ferdinand & Verhulst, 1995; Wilson, 1996). The fact that both groups were in the normal range of mental health symptoms at Follow-up also suggests a good preventative effect for adult psychopathology. It would be of great interest to follow-up these individuals in their mid-twenties to further explore the issue of prevention in an even longer timeframe.

The association between reduced risk factors (depression and mental health symptomatology) and reduced non-productive coping is an important finding. The link between these two variables has been observed previously (Compas et al., 2001) and suggests that protective factors that mitigate the effects of risk may include the absence of dysfunctional adaptation to the environment rather than more enhanced coping behaviours. That is, it may be more profitable and meaningful to assess the reduction of *counter*-protective factors. For example, reducing feelings of isolation rather than increasing feelings of social connection, or reducing pessimism rather than increasing optimism. While these constructs appear qualitatively equivalent to each other, they may in fact be quantitatively different. This hypothesis would also be worthy of further investigation, and would be of benefit to the literature on treatment outcomes for high-risk adolescents.

Finally, the suicidal behaviour outcomes in the present study during the post-intervention period are good in comparison to the literature. Kotila & Lonnqvist (1987) found a completed suicide rate of 1% of first-time attempters and 4% of repeat attempters five years after last mental health service contact. Further, Fridell, Ojehagen and Traskman-Bendz (1996) found a completed suicide rate of 13% and reattempt rate of 40% in adults, and Goldston et al. (1999) found a 25% completed suicide rate in adolescents within the first 5 years of discharge from a mental health service. Of the latter study, 4% of adolescents who had no prior history of suicide made an attempt within six months of discharge. In the present study, there were no completed suicides during a similar time-frame.

6.6 Implications for Theory

This study supports previous research that has found that productive coping is less amenable to change through deliberate intervention programs. It is the case that interventions that have tried to increase productive coping, do in fact cause a decrease in non-productive coping (Cunningham et al., 1999; Cotta, 1999). The results from the present study are consistent with this observation. This would suggest that efforts to teach productive coping possibly have the effect of emphasising what works and what does not. This could result in adolescents being more aware that there is a difference between productive and non-productive coping, then opting not to use non-productive coping approaches. It is interesting to note that with the decrease in non-productive coping and no concomitant increase in productive coping, there is a decrease in mental health symptoms. Theoretically it might be expected that the decrease in non-productive coping would be associated with a proportional increase in productive coping, however the data does not show this relationship, which is consistent with previous research (Frydenberg, 1997). Therefore it appears that improved mental health is most related to reduced use of non-productive coping, and not more use of productive coping. This suggests that non-productive coping may create stressors as a result, in addition to the pre-existing problem. Non-productive coping strategies such as social avoidance and substance use, while appearing to reduce the adolescents feelings of stress in the short term, actually become a stressors in and of themselves.

The literature on coping suggests that the decrease in non-productive coping may produce an overall decrease in the level of distress or the number of problems being experienced. Lazarus' theories (1991) propose that solution focused (productive) rather than problem focused (non-productive) approaches are associated with better outcomes. Seiffge-Krenke (1993) also showed that in adolescents that the decreased use of withdrawal (a non-productive coping strategy) was a stronger predictor of outcomes, than was the type of stressor per se. Aldwin's (1994) theories also suggest that coping is a transactional process where coping, stress and adaptation occur in reciprocal interaction with the participant's psychosocial environment. That is, the decreased use of non-productive coping may produce a decrease in the overall number of problems being experienced or the longevity of a stressor. This may lead to a change in the participants' appraisal of stressors and types of coping utilised, and a resulting decrease in mental health symptoms, even though there is no concurrent increase in productive coping.

6.7 Methodological Limitations

The most obvious methodological limitation was the lack of a no-treatment control group with which to compare the effects of the intervention. As previously discussed there were some ethical and practical limitations, which made the inclusion of a no-treatment control group untenable. The treatment program was a core service of a psychiatric outpatient clinic, hence the wellbeing of the participants and the priorities of the regular clinic services were a higher priority. A common methodological limitation of intervention studies with clinical patients is that the use of a no-treatment control group, for example a group activity with no therapeutic component, is unethical as it unnecessarily puts patients with acute need in the position of receiving little or no therapeutic benefit when it is most important that they receive the optimal treatment as soon as possible to relieve distress. Further, to minimise selection biases when analysing group differences, participants need to be randomly assigned to either the treatment or the control group. This procedure is fraught with problems as there is a basic ethical principle that clients should receive the treatment that has the best chance of relieving distress or psychological disorder. The purpose of research should be that it serves the needs of such clients, and not that clients serve the needs of research if that means compromising their own treatment.

Some previous research has used a comparative therapy treatment as a control condition. This is only appropriate when the research question is to compare two forms of therapy. Considering that few *clinical* treatments for suicidal behaviours have shown any effectiveness, a treatment comparison control group is probably premature at this stage. A wait list control may be viable, but in psychiatric outpatient settings, as explained above, the clients typically require immediate attention, making a wait list control neither practical nor ethical.

Sample size. This brings us to the issue of sample size, effect size and statistical power. The current study has a reasonably small sample size, but a comparatively large sample size for a study of clinical population. As a small sample size reduces statistical power, it is difficult to equivocally reject the null hypothesis or have sufficient statistical

power to reach significance in order to accept the experimental hypothesis. The current study's lack of power means that it is not possible to reject the null hypothesis, or confidently concluded that there was no true group difference, only that the study did not have sufficient power to reach statistical significance. Lack of power is a common research problem when investigating interventions with clinical populations.

Sampling issues. The sample was assessed over a 6-year period with pre and post-treatment measures being completed at four equally spaced points spread throughout the calendar year. This has the benefit that the effect of seasonal factors randomly influenced the measures. That is, the changes observed over time cannot be attributed to any single seasonal factor. Follow-up data was collected over a period of 4 years, with the average follow-up period being 5 years post-treatment. Again, data was also collected throughout the calendar year.

The length of post intervention phase varied somewhat between participants. Therefore the age at which participants underwent treatment and were assessed at follow-up varied, and the outcomes were not specific to one particular development stage, such as leaving school. This could be interpreted to mean that the results of this study are more generalizable to the adolescent population than are the results of a study that assessed participants from a narrow age range and over a fixed period of time. For instance, if all participants underwent treatment in their final year of high school, and were assessed at follow-up when they had left school, then the changes over the post intervention phase become difficult to separate from those affects likely to be associated with leaving high school.

A related issue is developmental effects on adolescent coping (Aldwin, 1994; Frydenberg, 1997). It is still unclear whether the changes to coping seen over the duration of adolescence are due to the changes in those stressors with which the adolescent are exposed, or whether these changes are a result of maturation (Frydenberg, 1997). Coping styles used at one stage of life may become redundant at another stage due to the different stressors experienced. Adolescent coping may need to be assessed in relation their circumstances more so than with an adult population. Such circumstances include being at school or working, living with family of origin or living independently, being coupled or single, and so on. For this reason adolescent coping measures tend to have a stronger

focus on environmental influences and less on the dispositional idiosyncratic features of their preferred coping style. This differs from the concept of adult coping, which assumes that coping is a stable and predictable pattern of skills that the person uses throughout their life span (Aldwin, 1994). While these developmental factors may have effected the results, grouping coping styles into productive and non-productive coping would obviate the influence of contextual factors that arise from developmental maturation. Frydenberg (1997) argues that coping styles are stable over time, and are used consistently with all types of stressors, suggesting that the Adolescent Coping Scale would not be unduly influenced by maturational changes, and the clustering of these two types of coping has some utility in an adolescent sample.

Measures. Several issues arise in the measurement of adolescent mental health and coping. First, most measures are developed and validated for adults. For this reason, the Adolescent Coping Scale was used in this study. The literature on coping, however attests to several models of coping (Aldwin, 1994; Frydenberg, 1997), and the conceptualisation and assessment of coping is far from being resolved. The transactional models of stress and coping emphasises that coping both influences, and is influenced by, stressors and perceptions of psychological strain. Despite these conceptualisation issues, the ACS's strength is that it has been developed specifically to examine coping in Australian adolescents.

Mental health symptoms at pre and post-treatment were measured using the Youth Self Report. At follow-up, when participants were of adult age, mental health symptoms were measured using the Young Adult Self Report which has been specifically adapted to be able to assess young adults in a way that is comparative to the YSR. The Beck Depression Inventory was selected because of its superior psychometric properties and that as it has been validated clinically with clients as young as 13. It also allows for comparative measurement into adulthood as was the case at the Follow-up time. The use of an adolescent specific measure of depression such as the Childrens Depression Inventory would not have been appropriate as it is only valid with participants up to the age of 17 (Kovacs, 1992). However, it would have had the advantage of being more relevant to school, peer and adult relationship related behavioural symptoms that the BDI lacks.

As mentioned in section 6.3, it is important to consider the psycho-educational effects of participating in a psychological intervention. That is, through treatment, participants may

have gained a greater awareness of the severity and scope of their mental health problems. At post-treatment there may have been an increased awareness of psychological symptoms, which may have resulted in an increase in the levels of mental health symptoms and depression being reported. An influence such as this would attenuate the magnitude of the treatment effect being reported post-treatment (i.e., the increased reporting of symptoms may interact with, and distort the true effects of treatment). Although this research hypothesis could not be explored directly, it may have influenced the magnitude of changes at post-treatment, resulting in a lack of significant findings on this occasion.

Future studies could intentionally employ some form of psycho-education prior to treatment. This may increase the participants' psychological *literacy*, allowing them to more comprehensively and accurately disclose their distress prior to treatment (Goldney, Fisher, Wilson & Cheok, 2001). Such an intervention as this could have the added benefit of increasing insight into clients' difficulties that they may have not been aware of, thus increasing motivation to use therapy prior to treatment (Kazdin, 2000). Further, the fact that data collection was done by treating clinicians and therefore was not anonymous, this may have affected participants' willingness to disclose personal information prior to treatment.

6.8 Future Studies

Design. Future research in this area should consider a design that included multiple data collection points taken in short intervals following treatment. Data taken at these points would help tease out the research question about whether the decrease in mental health symptoms seen in the post intervention phase, occurred soon after treatment, or whether changes did not occur until a longer period of time after treatment. Of particular interest, is whether benefits that occurred after the intervention were due to the participants changed coping styles learnt in the intervention phase being applied in their daily lives, or whether the benefits occurred because of developmental changes and maturational effects. If that latter was in fact the case, it would be expected that there would be a more gradual change seen over this period, with the peak benefits seen occurring some years later, in the final stages of follow-up. Immediate effects would likely be present in 3 to 12 months immediately post-treatment. However it may still be

difficult to determine whether these changes were due to maturational effects. None-the-less, this would provide a better indication about when these benefits occurred and could more easily be linked with changes to the adolescent's environment and any stressors that occurred. Finally, an assessment 2 to 6 weeks post treatment may be a more accurate means to gauge changes to coping styles learnt through the intervention that are applied immediately, when they are actualised in the client's usual environment.

Measures. Another important issue in research of the type with adolescents is the use of valid tests. Tests used must take into consideration the impact of psychological development on self-report mental health measures. Adolescence through to young adulthood is a period of significantly varied cognitive and affective development and life circumstances. It is difficult to find any measures that are unaffected by variations in development and environmental factors from adolescence to young adulthood. Due to the broad age range in the present study it was difficult to find measures that could achieve this. Ideally, measures need to be appropriate for use with a wide age range, such as 13-22. For example the Childrens Depression Inventory (CDI, based on the BDI) was not used in this study as it would not have been appropriate for the follow-up assessment period. For this reason, the YASR was a good measure for the follow-up as it complimented the early use of the YSR and allowed valid and meaningful comparisons. However the fact still remains that the measures available to assess adolescents are still reasonably inadequate, given the measures that are available still face the problems of variation of cognitive and affective development in this age range.

Related to this, the YSR subscales appear to be more effective in capturing the types of difficulties that are experienced by clients with suicidal and non-suicidal behaviours. This follows logically as the presenting problems experienced by the present sample were more varied than simply depression, and included social difficulties and somatization. Therefore the present author suggests that future studies should also include the YSR as a particular measure with adolescents with a history, or risk of suicidal behaviour.

Specific therapeutic factors. The present study utilised a combination of cognitive behavioural therapy and wilderness adventure therapy. Cognitive behavioural therapies have been researched extensively, however wilderness adventure therapies have yet to be comprehensively investigated with regard to treatment effects (Newes, 2001). The present study aimed to examine the effects of wilderness adventure therapy as part of the overall

investigation. In investigating a therapy with poorly understood processes, there is a difficulty of knowing what measures would best capture outcome effects that are still relevant to established forms of therapy. Specifically, wilderness adventure therapy includes an element of exposure to risk that is inadequately assessed using the measures currently available. The current literature on, and measures of risk taking focus on risk as a negative or potentially harmful behaviour, and do not account for the potential benefits of positive risk taking. Such benefits include cognitive appraisal and adaptive decision making involved with risk situations. Aldwin's (1994) theories propose that exposure to stressors is vital to healthy behavioural and psychological adaptation. He argues that the experience of stress and the need to appraise stressful situations is critical to effective adaptation and productive coping. A premise of wilderness adventure therapy is that exposure to risk is positive in that it allows adolescents to develop a positive appraisal about their capacity to respond to stressors and develop effective responses to stress. This may underlie some of the benefits expected with this type of therapy and would be consistent with the long-term beneficial outcomes found in this study. Further, investigating this question would address whether the benefits from wilderness adventure therapy outweigh the potential costs associated with exposing distressed individuals to this high stress therapeutic modality. This hypothesis is supported by the concepts of *stress inoculation* and the research that supports it (Foa, 1999). The hypothesis that high-risk adolescents who are frequently exposed to highly stressful environments would benefit from this exposure to stress (in a guided therapeutic setting that supports productive coping) is a worthy area that warrants further investigation. It is of upmost importance to ensure that any intervention that is used with clinical populations with suicidal behaviour, undergo a thorough investigation of its effectiveness in this way.

This study also included a cognitive behavioural therapy group component. It is also of value to investigate differences in the coping styles between suicidal and non-suicidal adolescents in terms of their cognitive coping strategies and how this is effected by being combined with wilderness adventure therapy. It may be that suicidal behaviour may be inhibited by cognitive schema that develops from having to endure extremes of physical and emotional hardship. For instance, the wilderness adventure therapy experience may serve as a useful metaphor for being able to tolerate adversity and endure seemingly unbearable situations. Schema such as "I feel that I can not cope any longer but I know that I can tolerance this extreme psychological 'pain', and that it will pass" would seem to hold highly prophylactic value for suicidal adolescents. The wilderness adventure therapy

experience is likely to be a readily accessible, salient and tangible source of such protective beliefs. Additionally, the problem-solving demands inherent in wilderness adventure experiences would allow for the development and generalisation of a broad set of problem solving skills and concepts. Indeed, the development of feelings and attitudes of self-efficacy in regard to successful problems solving have been found in previous studies (Cotta, 1999). Finally, the behavioural nature and environmental reinforcement of active and goal-directed behaviours that are often reported in wilderness adventure therapy (Davis-Berman & Berman, 1994; Gass, 1993) have been found to be important therapeutic factors in the treatment of depression (Brent et al., 1998). Further investigation of how these factors effect clinical outcomes also warrant further investigation.

More broadly, it is increasingly recognised that it is equally important that measurement of treatment outcomes take into account increases in client functioning, rather than only focusing on the reduction of dysfunction (Kazdin, 2000). For this reason, changes in adaptive coping irrespective of mental health symptoms are considered as equally important therapeutic outcomes and not simply concomitant to symptom reduction (Kazdin, 2000). Futures studies should consider routinely including an equal balance of valid and sensitive measures of client functioning in areas of relevance to the client group such as social and school performance. Doing this may bring to light more the beneficial outcomes for clients more effectively than measures of psychopathology alone.

Treatment compliance. Wilderness adventure therapy programs may be able to engage withdrawn and isolated adolescents more effectively than other therapies. Indeed, simply engaging suicidal adolescents in treatment, as well as ensuring treatment compliance, is a critical need. It has been found to be poor with other treatment types for adolescents in general (Kazdin, 1995b), and suicidal adolescents in particular (Hawton et al., 1987). This would seem to be important to the development of protective factors such as feelings of connectedness to others (both peers and adults) and appropriate help seeking behaviour from peers or professionals. Again, this form of therapy would seem to have much to offer in this regard. Future studies could investigate changes to help-seeking attitudes and behaviours as well as perceptions and attitudes towards social relationships and behaviours that facilitate social connection.

Identification of long-term risk. This study has shown that risk factors for suicidal behaviour remained immediately post-treatment, and for 9 individuals actual suicide behaviours occurred in the post-intervention phase. This result emphasises the importance of providing follow-up of clients who remain at risk following treatment. As a first step in doing this would be how to identify those who might continue to be at risk. Results of this study suggest that those who show persistence of symptoms following treatment (the Suicide Behaviour group) are more likely to remain at risk. Measures have recently been developed to assess future long-term risk and should be included in prospective follow-up studies to validate their clinical usefulness (Lewinsohn et al., 1995). Other clinical indicators of client characteristics could be investigated using regression methodologies. This however, would necessitate using very large sample sizes in prospective studies that may be difficult to achieve for practical and ethical reasons.

6.9 Clinical Implications

Compliance rates and treatment completion with clinical adolescent populations is generally very poor (between 40-60%, Kazdin, 1995b), and is especially so for the suicidal adolescent (Hawton et al., 1987). This type of treatment has shown promise in facilitating positive relationships between difficult to engage adolescents and service providers as seen by the good treatment completion and high follow-up compliance rate.

The costs in both human and material terms for suicide, suicidal behaviour and poor mental health in the adolescent population are substantial (Sawyer et al., 2000). While more intensive treatment such as wilderness adventure therapy and full-time day program formats are not inexpensive, by comparison to inpatient service costs they are minimal. The results here suggest that the treatment program studied here offers significant advantages both in terms of accessibility and engagement of an especially vulnerable client group, but also may offer unique therapeutic qualities with regard to the development of coping skills and resilience that other therapies don't. Indeed, the adolescent not wanting to attend has been found to be a common reason why parents don't seek professional help for their child who has a mental health problem (Sawyer et al., 2000).

A key issue that this study highlights is that those adolescents who have symptoms that are resistant to treatment are the ones with the most negative outcomes in the long term.

So, poor treatment outcomes should be considered a 'red-flag' for continued treatment, and, or monitoring or long-term assertive follow-up.

This study also indicates that it may be important to include 'booster' sessions as part of routine intervention formats to first, generalise and consolidate treatment benefits, and second, monitor clients who might remain at risk. Such booster sessions should be highly engaging and be solution focussed towards real life stressors. Being able to provide 'trouble shooting' for problems in this way may make a substantial difference to the longevity and generalisability of productive coping approaches.

6.10 Conclusion

Suicidal behaviour in both adolescents and adults is poorly understood, and any contribution to this area is valuable. Research in the area is made difficult by the low base rate of completed suicides and the limitations to retrospective research methodologies.

This study has been hampered by some methodological limitations such as the lack of a no-treatment control group, and the presence of a very rigorous comparison group (its hard to find group differences between similar groups). However, it does feature many strengths. Most notably, it was a prospective study over a long period of follow-up. There was a high representation in samples at all stages and a high level of compliance at the follow-up data collection point. This study used valid measures with a broad focus, not just of risk factors (mental health and depressive symptoms), but also of protective factors in terms of coping effectiveness.

Finally, the study included an innovative therapy modality that would appear to hold unique and potentially critical characteristics for addressing the therapeutic needs of suicidal adolescents and those at risk of same. The results of the study, while not equivocal, suggest that further investigation into this treatment of this client group is warranted. This approach may be able to contribute much needed innovation into effective prevention and intervention approaches with this high need group.

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Australian Wilderness Adventure Therapy®
Accreditation Scheme (AWATAS)

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Introduction

This document describes the Wilderness Adventure Therapy® (WAT) practitioner and program accreditation scheme developed by Dr Simon Crisp. The accreditation scheme was developed in 2002 to train and accredit practitioners and in 2003 began offering program accreditation. Both forms of accreditation are viewed as essential to fully ensuring minimum standards in this field.

Background
There has been substantial discussion in the field in recent years about the need to professionalise practitioners and program practices in the area of outdoor programs that aim to provide therapeutic outcomes. Further, for many years there have been calls for increased practice standards to safeguard the psychological well being of clients and a need to gain credibility and acceptance from conventional professional disciplines (Crisp, 1997; 1998). There has also been a need for a means to select and effectively train staff to run WAT programs. This issue has been a topic among various network groups such as the proposed Association of Wilderness Adventure Therapists (Crisp, 1998) and the Victorian Outdoor Education Association - WEPNet (formerly Adventure Alternatives). An important issue that seems to have consensus, is that any training scheme should *practically* prepare practitioners to work in the field. Therefore training should be run by professionals with a depth of practical experience and who are currently practicing in a wide variety of service settings and with different client types.

Further, the field recently voiced a strong desire for increased professionalism together with an inclusive process that provided opportunity for both outdoor leaders and therapeutically trained professionals to combine (New Zealand Aotearoa Adventure Therapy Conference, Rotorua, November 2002; South Pacific Forum, Victoria, April, 2002). This need was raised by a group of outdoor practitioners and therapists from around the country at the Adventure Therapy pre-conference workshop in Southport as long ago as 1995. Here, the first priority identified for the field was "Certification, qualifications and competencies" followed by "Quality control", and third "Training". These needs persist today no less than 10 years ago. In addition, the insurance industry is currently scrutinizing both the outdoor and therapy fields in an unprecedented way, leading to huge increases in insurance premiums, and restrictions on activities and practices. Similarly, funding bodies and the community in general are examining programs and practitioners more critically, especially in relation to qualifications, competency and ethical practices. Further, legal precedents suggest that any person who offers 'therapy' would be exposing themselves to legal action if they could not show some minimal level of training that was consistent with broader community standards and training requirements to practice as a therapist.

Finally, there has been an acknowledgement of the need to offer training for practitioners involved with both outdoor programs who offer beneficial programs for special needs groups as well as more specialized clinical therapy programs.

What is Wilderness Adventure Therapy®?
Wilderness Adventure Therapy (Crisp, 1994; 1995; 1998; Crisp & O'Donnell, 1998) is a complex clinical treatment approach that differs from less specialized therapeutic outdoor programs. WAT has been developed and researched by Simon Crisp since 1992, and is based on conventional therapeutic practices of clinical assessment and treatment planning, and employs conventional therapeutic frameworks and methods, including defining the program consumer as a 'client' and the program provider as a 'therapist' or 'therapy team'. Consequently, a minimum number of staff for such an approach require a formal and recognized qualification as a therapeutic professional.

Valuable training for non-Wilderness Adventure Therapy practitioners
The training scheme described below aims to provide training for both those who seek basic training in therapeutic issues who can work in outdoor programs for special needs groups, as well as those who seek to become specialised WAT practitioners and work in WAT programs. The former training would include completion of Stage 1 of the scheme: a) Introduction to WAT Course, b) Psychological First Response Course and c) experience with special client populations.

Defining Wilderness Adventure Therapy

For the purposes of describing the Wilderness Adventure Therapy (*WAT*) training and accreditation scheme, the following operational definition of WAT is used:

Definition
WAT is not experiential learning used with special needs client groups. WAT is the application of a complex intervention to clients who request, or consent to undertaking a 'treatment' program that aims to reduce a psychological, behavioural and/or family problem that is seriously effecting their functioning in life. Key features include:

- The intervention is based on an acknowledged relationship where there is an identified 'client' or consumer of the intervention, and an identified 'therapist' or 'therapy team' who provides the intervention
- There is a 'contract' for therapy that includes a) clients' rights and responsibilities, b) treatment goals, and c) a 'treatment plan' all of which are negotiated between client and therapist/team.
- The standards of practice conform to a) conventional ethical and legal frameworks, b) conventional therapeutic and clinical practices, and c) conventional adventure activity facilitation and safety standards
- A WAT program structure that has 1) Intake, 2) Treatment, 3) Termination and 4) Follow-up phases and includes the following components:
    1) Induction and selection of clients based on the principle of 'maximum benefit to the majority',
    2) Clinical screening and assessment,
    3) Development of a therapeutic relationship and contract,
    4) Orientation to the program,
    5) Activities selected, modified and sequenced in keeping with assessments and goals formulated for each specific client cohort,
    6) The program has the capacity to be integrated with conventional therapies,
    7) Treatment goals, progress and methods are reviewed and modified regularly,
    8) A crisis response plan is developed for each client that adequately addresses assessed risks as well as general risks,
    9) Termination tasks such as referral-on, further assessments required and post-treatment case-planning are ensured,
    10) Client's goals are reviewed post-treatment, and the client is supported to identify on-going post-treatment goals and strategies,
    11) The client's psycho-social supports are enlisted to assist with these goals in the post-intervention phase,
    12) Follow-up interventions are put in place to confirm the continuance of the WAT outcomes, and trouble-shoot any difficulties.
- Those professionals delivering the WAT intervention a) hold the minimum required qualifications and skills as per any conventional therapy and outdoor program, b) have negotiated roles and responsibilities for a functional and effective team, c) adhere to policies and program procedures and team processes that safeguard the client psychologically and physically.

Current issues regarding qualifications and competencies

Some issues have been identified, discussed and debated over many years in various State, National and International conferences and forums (Crisp, 2002; 1995 June; 1998; 1998 June).

Key issues identified

1. Need for visible and documented standards of practice
2. The significant rarity of dual-qualified (adventure & therapeutically trained) professionals, and unlikely significant increase in number of such people in the foreseeable future.
3. Need for guidelines that specify how all the various roles and skills should be combined among practitioner teams who deliver WAT
4. Need for practitioners to hold a widely accepted qualification that acknowledges a minimum level of formalized training and experience that logically relates to point 3.
5. Need for training pathways that are:
    a) accessible,
    b) practically prepare professionals to practice according to points 3. & 4., realistic in terms of cost, time and applicability of the qualification to the work available, and
    c) allow entry for professionals from both the therapeutic professions and outdoor leadership field.
6. Need for a training scheme that could be applied nationally, and could form the basis for gaining membership for a professional association, thus creating the foundations for a truly recognized profession.

Underpinning rationale for a training & accreditation scheme

The practice of WAT requires three areas of expertise. Therapeutic qualifications and experience, outdoor leadership training and experience and specific specialized training and experience in WAT. Very few people in Australia hold all three requirements. Therefore, currently very few professionals in the country have the qualification, expertise or experience or opportunity to establish and run a training scheme in WAT that is needed for the field to expand. This maintains a vicious cycle of a lack or expertise being developed and therefore the lack of a pool of expertise to train others in return. Consequently, the pool of professionals who have the requisite skills as well as broad and full training or experience can be expected to be extremely limited in the future.

As stated above, dual qualified Wilderness Adventure Therapists are uncommon, and that WAT Teams are, and will be far more common in the practice of WAT. A training scheme that draws professionals from both the therapeutic and outdoor fields and provides common knowledge and training in the mechanisms for collaborative practice potentially and realistically fills this expertise gap. Further, to ensure that these 'skill-sets' are applied appropriately and fully, programs need to be structured both to the needs of their target group but also to ensure that effective, evidence-based and psychologically safe practices and procedures are in place and are managed and reviewed routinely.

The current Australian WAT Accreditation Scheme (AWATAS)

Out of the need described above, Dr Simon Crisp (through Neo *Youth*Psych Consulting) has been offering this training scheme for practitioners since November 2002. This scheme offers two outcomes. First, is to develop skills in both adventure leaders and therapeutically trained professionals to be able to combine to form WAT Teams. The second outcome is to provide a basic training for outdoor leaders who work with special needs groups but who are not providing therapy programs.

In addition to this practitioner training scheme, a *WAT Program Accreditation Scheme* has been developed based on benchmarking Best Practice principles (Crisp, 1997). Full WAT Program accreditation requires program staff to have completed the WAT Accreditation Scheme. The two aspects of the scheme are linked and provide reciprocal support for one another. Together, this provides a professionally regulated field in both these important dimensions: (a) staff competencies and (b) program design and practices.

In order for the profession to grow, and for both these aspects to be successful, the field and potential employers need to know about the content, outcomes and value of this scheme to the field. The detail of the practitioner scheme is presented in the following section. The process and benchmarks used in program accreditation are outlined in the Appendix to this document.

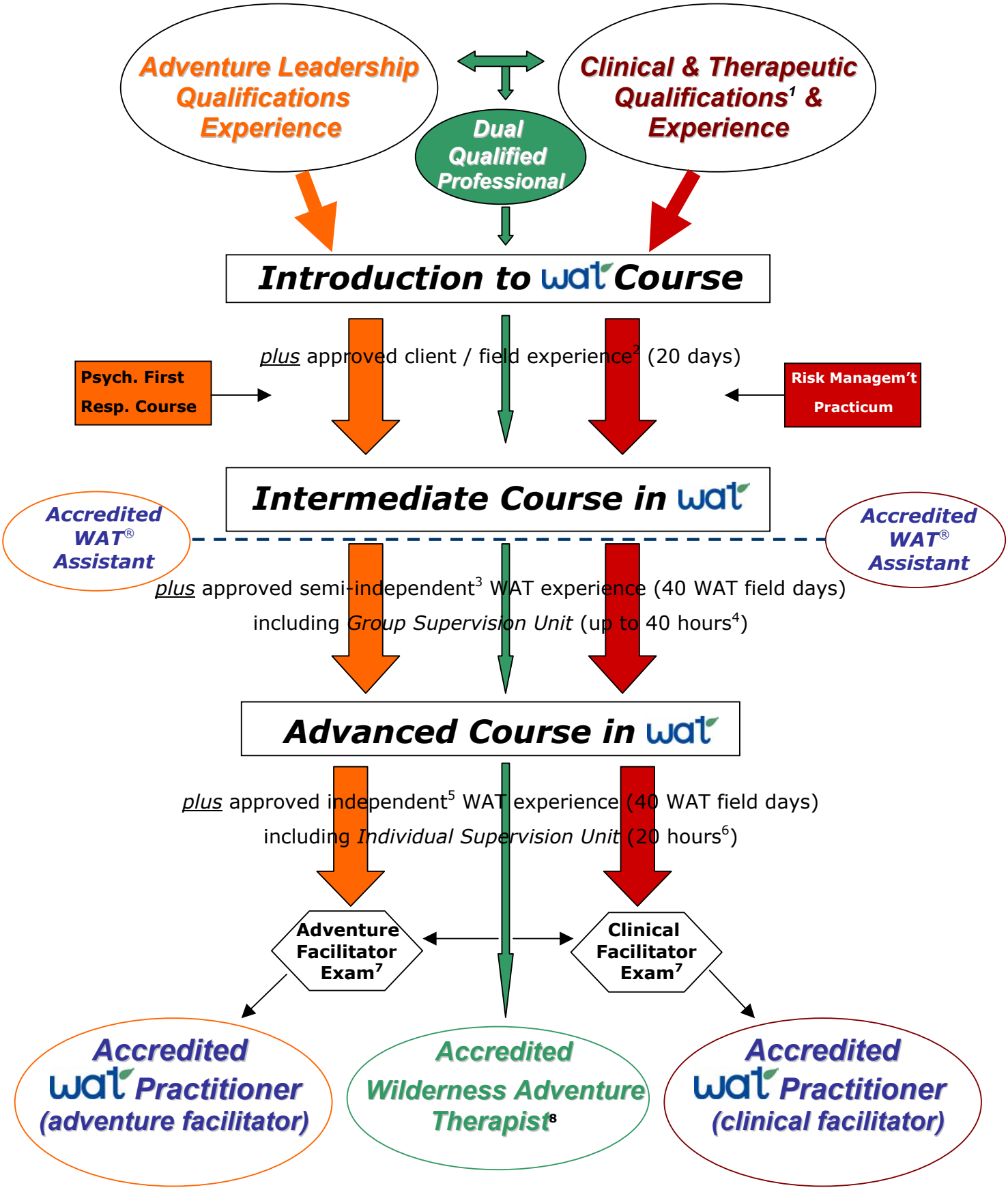
The Use of the Trademark Protected Term *Wilderness Adventure Therapy*

Simon Crisp first used the term *Wilderness Adventure Therapy* in Australia to describe a form of clinical treatment he developed in 1992 and 1993. The design of this model, the clinically dual-trained staff, the important clinical assessment and integration with other interventions were unique features that distinguished WAT from other approaches. This model was first described to the field in a conference paper by Crisp in 1994 ('Wilderness Adventure Therapy with Adolescents' - RANZCP Faculty of Child & Adolescent Psychiatry Annual Conference, Adelaide) and in the papers by Crisp (1996), Crisp & Aunger (1998), and Crisp & O'Donnell (1998) published in the Australian Journal of Outdoor Education.

wat and *Wilderness Adventure Therapy*® are registered Trade Marks in Australia and New Zealand. These terms are protected by law and may only be used under legal agreement. This term has been trademarked as a way to regulate the meaningful and ethical use of the term, and to maintain the integrity of the concepts and practices developed by Simon Crisp that this term describes. Practitioners and Programs who have completed the AWATA scheme will be permitted to use these trademarks freely to identify themselves as having successfully completed this accreditation process. Ultimately, this allows the consumers of such services to be able to identify those accredited providers who have undertaken training to this standard from those who have not.

Wilderness Adventure Therapy training & accreditation pathway flowchart

The following schematic outlines the training pathway and is then described in detail.



Stages of the WAT training scheme:

Stage	Adventure Leader	Therapeutic Professional[1]	Dual Qualified Professional
1	*Intro. WAT Course*	*Intro. WAT Course*	*Intro. WAT Course*
2	20 days experience with clinical populations[2]	20 days outdoor field experience, eg. mainstream outdoor education programs[2]	10 days with clinical populations & 10 days outdoor program field days
	Psychological First Response Course (3 days)	*Risk Management Seminar (1 day)*	* both the PFR & RMP are recommended but are not compulsory
3	*Intermediate WAT Course*	*Intermediate WAT Course*	*Intermediate WAT Course*
4	40 WAT field days – approved placement as WAT Trainee[3]	40 WAT field days – approved placement as WAT Trainee[3]	40 WAT field days – approved placement as WAT Trainee
	Group Supervision Unit – 40 hours[4] (26 x 1.5hr sessions)	Group Supervision Unit – 40 hours[4] (26 x 1.5hr sessions)	Group Supervision Unit – 40 hours[4] (26 x 1.5hr sessions)
5	*Advanced WAT Course*	*Advanced WAT Course*	*Advanced WAT Course*
6	40 WAT field days (approved) as a probationary WAT Practitioner[5]	40 WAT field days (approved) as a probationary WAT Practitioner[5]	40 WAT field days (approved) as a probationary WA Therapist[5]
	Individual Supervision Unit – 20 hours[6] (20 x 1hr sessions)	Individual Supervision Unit – 20 hours[6] (20 x 1hr sessions)	Individual Supervision Unit – 20 hours[6] (20 x 1hr sessions)
7	*Adventure Facilitator Exam*[7]	*Clinical Facilitator Exam*[7]	*Adventure + Clinical Facilitator Exams*[8]
	Accredited *WAT Practitioner (adventure facilitator)*	**Accredited *WAT Practitioner (clinical facilitator)***	**Accredited *Wilderness Adventure Therapist***

Notes:
1 – Psychologists, Occupational Therapists, Social Workers, Psychiatrists
2 – Experience with a) clinical populations (for adventure leaders) or b) outdoor programs (for therapeutic professional (experience gained no more than 2 years prior to completion of the *Introduction to WATC* gains exemption)
3 – Assistant adventure facilitator/assistant clinician for first 20 days, then lead adventure facilitator /lead clinician role with in-the-field supervision for the last 20 days
4 – 1 hour group supervision per 1 WAT day / 2 hours per expedition
5 - Lead adventure facilitator/lead clinician with off-site supervision
6 – 1 hour individual supervision per 2 WAT days / 2 hours per expedition
7 - Exam: a) brief written paper, B) case studies, c) oral exam (interview)
8 – Dual-trained professionals must complete both Adventure and Clinical Facilitator exams to be certified as a Wilderness Adventure Therapist

Stages 1 & 2
Provides an *orientation* to WAT, familiarizing trainees to basic frameworks, processes and client issues. Stage 1 (*Introduction to WAT Course*) covers fundamental theory and methods, while Stage 2 is intended to ensure that trainees have a sufficient background in general issues of risk-management (psychological and physical) as well as some experience with a clinical population (for adventure leaders) and with outdoor programs (for clinicians). For those adventure leaders who work with special needs groups in non-therapy outdoor programs, completion of Stage 2 would provide an ideal foundational training.

Stages 3 & 4
Completion of Stage 3 prepares the trainee to be able to assume the role of a *Wilderness Adventure Therapy Assistant*, providing support to a WAT Team of accredited practitioners. At this point trainees can apply to become accredited *WAT Assistants*. During this stage (4) the emphasis is on observation of experienced practitioners and gaining WAT experience in less complex methods under direct supervision of an accredited WAT Practitioner.

Stages 5-7
After having successfully completed Stage 4, the trainee would then complete the Advanced WAT Course (Stage 5) that would then prepare them for assuming a probationary lead role with indirect but more intensive supervision in Stage 6. The final exam (Stage 7) would ensure the trainee has appropriately integrated WAT theory into their practice and has an ability to solve complex clinical and risk-management problems, including Team functioning and special client needs, and was capable of practicing as an independent professional.

Practitioner accreditation and staffing profiles of WAT Teams

Professionals who pass the final examination process become accredited *Wilderness Adventure Therapy Practitioners* or *Wilderness Adventure Therapists*[1]*.* WAT Practitioners (both adventure & clinical) would work within Teams comprising complimentarily trained staff. Wilderness Adventure Therapists would be capable of working in pairs. The main three minimum WAT Team practitioner combination requirements is presented bellow:

Type I Team (2 adventure trained + 1 clinician)

2x WAT Practitioners (adventure facilitator) +
1x WAT Practitioner (clinical facilitator)

Type II Team (1 adventure trained and 1 dual-qualified)

1x WAT Practitioner (adventure facilitator) +
1x WA Therapist

Type III Team (2 dual-qualified)

2x WA Therapists

A further team type is preferred when working with clients with high therapeutic needs:

Type IV Team (1 adventure trained + 1 clinician + 1 dual-qualified)

1x WAT Practitioner (adventure facilitator) +
1x WAT Practitioner (clinical facilitator) +
1x WA Therapist (Team Leader)

As accredited practitioners, their name and accreditation status would then go on the public record and be listed on a *Register of Accredited WAT Practitioners*. Accreditation could also be used as the basis for Membership of a professional association, while those who had completed Stage 3 of the scheme could be granted 'Associate' membership status.

[1] For legal reasons, and in order to gain acceptance from both the lay-community and other professions, the title 'therapist' is only used to denote a professional who already holds a recognised therapeutic qualification.

A national practitioner training scheme

The Australian WAT Accreditation scheme is designed to be highly accessible and transferable on a national level. This is made possible because the course units are condensed in time, and the experience and supervision components can be undertaken remotely. Consistency of standards and quality of training will remain with *Youth*Psych Consulting. The course have been successfully run from regional centers, where in turn, local practitioners could be trained and approved to run the course units locally. This 'train-the-trainer' model will allow the scheme to be established permanently in other states and can be run as often as local demand dictated. Furthermore, local training needs can be incorporated into the scheme at those sites while maintaining core components. This process will ensure a high level of consistency in standards nationally. This would be of substantial value in the promotion of WAT as a profession to funding bodies and the community.

At the time of writing, Stage 1 of the scheme had been successfully established in Victoria, South Australia and Queensland, with plans to broaden the scheme to New Zealand and New South Wales. Further, a number of Universities have expressed interest in incorporating the scheme into both post-graduate and undergraduate courses. The scheme has also drawn interest from practitioners in Asia, Europe and the USA.

Broader issues of professionalising the field

This scheme is aimed at complimenting any similar initiatives aimed towards ensuring practice standards and driving the field towards greater accountability and being more visibly professional. For instance, this scheme could readily form the basis for membership of a professional association if one were to be formed. Indeed, a substantial barrier towards forming such an association would be the requirement for some mechanism to ensure uniformity of minimum standards of practice, and the accessibility to a common training pathway for practitioners from a range of backgrounds. The national focus of the scheme allows for transportability to all states and territories, in addition to potentially broaden the scheme to New Zealand if that were desired.

Administration of the scheme

It is anticipated that to complete the WAT training scheme it could take a minimum of 24 months. Course fees are anticipated to compare very favorably to other training costs for either outdoor or therapeutically trained professionals, and university based post-graduate diploma courses.

The scheme is being administered by Dr Simon Crisp through Neo *Youth*Psych Consulting. Neo *Youth*Psych Consulting specializes in running programs, including WAT, for adolescents and families and providing training to professionals and agencies who work with the same type of clients. Dr Crisp has been directly providing WAT in clinical, educational and community counseling settings continually since 1992 (48 comprehensive, long-term programs to date). In that time, he has been training professionals in WAT through courses, workshops and clinical internships and direct field supervision. He initiated and convened the first conference specifically focused on adventure therapy in Australia ('*Bringing Adventure & Therapy Together in the Outdoors*', Austin Hospital, 1994), and began running formal courses in WAT in 1995. He is arguably the most qualified and clinically experienced person in Australia to deliver such training currently (Crisp, 1998, 1997, 1995, 1994; Crisp & Aunger, 1998; Crisp & O'Donnell, 1999, 1998). For many years he has advocated for the need to raise professional standards based on ethical principles that are consistent with conventional therapeutic professions (Crisp, 1997).

The costs of providing and managing the scheme are covered by Neo *Youth*Psych Consulting. Neo *Youth*Psych Consulting will aim to recover such administrative costs through the income derived from courses, supervision and exam fees.

Conclusion

The field of outdoor adventure therapy programs for special needs groups has lacked professionalism for many years and is in danger of failing to establish and sustain broad community acceptance or funding support. Policy makers are unlikely to view this modality as holding any legitimacy without even basic mechanisms for developing and maintaining standards among practitioners. This very unimpressive situation has warranted action for some time. The Australian WAT Training and Accreditation Scheme described in this paper is an attempt to redress this serious shortcoming. The scheme also provides an accessible and practical mechanism for membership to any future professional association. It is hoped that the field embraces the scheme as a critical step towards becoming a profession by providing broad-based support for it.

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Content of Courses and Supervision Units in detail
(subject to change without notice)

Introduction to WAT Course

- Becoming a WAT Practitioner, WAT Teams
- Key theory models, definitions of key concepts
- Application of the principles of best practice
- Program design, integration with agencies core functions, liaison & referral
- Client engagement, assessment and screening
- Composing a functional and therapeutic group
- Program case studies
- Duty of care, informed consent, privacy issues
- Ethical Issues, confidentiality
- Presenting client issues and diagnostic groups
- Client case studies: individuals & groups
- Therapeutic outcome and process evaluation
- Creating a therapeutic environment – therapeutic wilderness milieu, managing physical and psychological boundaries
- Holistic Risk Assessment And Management (HRAM)
- Professional client communication skills
- Group and Individual methods of intervention
- Effective and ineffective WAT teams: clinical & adventure trained staff roles
- Managing challenging behaviour in groups
- Conflict management and crisis intervention
- Responding to critical incidents, trauma management

Psychological First Response Course

3 Day course designed for outdoor leaders, teachers and youth workers who lead, teach, supervise or facilitate mainstream client populations:

Day 1
Professionalism, duty of care, consent, privacy & confidentiality issues
Psychological use of Holistic Risk Assessment And Management (*HRAM*) frameworks
Identifying common psychological and behavioural problems:

- Acute stress reactions, adjustment disorders
- Depression & anxiety disorders
- Disruptive behaviour: ADHD, oppositional behaviour & conduct problems
- Relationship issues: separation anxiety, bullying, personality difficulties,
- Learning difficulties: non-verbal learning disorder, Asperger's syndrome

Day 2

- Substance Abuse
- Eating disorders
- Psychiatric disorders: psychosis, mania, obsessive-compulsive disorders

Responding to problematic situations:

- Disclosure of sensitive information: abuse, domestic violence, suicidal intent

Day 3

- Managing traumatic incidents
- Problematic interpersonal conflict

Longer-term management, obstacles to service use and referral-on
Self-care; de-briefing and organizational support

WAT Risk Management Practicum

Weekend (48 hrs) course designed for Psychologists, Social Workers, Occupational Therapists and related disciplines who seek to be orientated to critical tasks and processes in delivering risk-managed wilderness adventure programs

- Professionalism, informed consent, duty of care, negligence and liability issues
- Holistic Risk Assessment And Management framework:
  - Risk Assessment: client, environment, activity
  - Prevention strategies: known and unknown risks
  - Emergency response: triage, first-aid, procedures, documentation
- Communication issues: procedures, technologies
- Emergency evacuation procedures
- Lost/missing procedures: search procedures
- Managing traumatic incidents: serious injury, death
- Operations manuals and emergency protocols
- Liaising with emergency services

Intermediate WAT Course

Intermediate Course = extended knowledge and skill development (5 days)

Prerequisite: Intro WAT Course + client experience

Specific Client Presentations and Psychological Disorders
- Theories of psychological problems
- Psychological disorders: adolescence & adulthood
- Clinical case studies
- Practical applications: group issues
- Use of Psychometric measures in client assessment
- Advanced assessment for, and using WAT

Developing an individualized WAT treatment plan
- Designing a program to suit a particular client group
- Activity and expedition format & venue selection: task analysis

Developing WAT psychological risk management and crisis plans

Special Client Issues
- Homelessness
- Sexual assault and abuse
- Domestic violence
- Substance abuse
- Body image and eating disorders

Principles of Group Therapy in Wilderness Adventure Therapy
- Group development and group facilitation
- The interaction between different presentations and group development stages
- Group intervention approaches: process versus content methods

Clinical Documentation
Liaison with agency staff, families, making referrals out
Advanced professional practice, the APS Code of Ethics

Advanced group facilitation and intervention methods
- Role of the group leader versus group therapist in the WAT Team
- Briefing & de-briefing methods; *Wilderness Adventure Processing System*
- Advanced conflict management and solution focused frameworks

Group facilitation role play workshops

Group Supervision Unit

Group Supervision Unit = integrating WAT theory and field experience (40 WAT field days) + group supervision: 26 x 1.5 hour sessions = 40 hours

Prerequisite: Intermediate WAT Course + concurrent approved field experience

Concurrent field experience
- Assistant adventure facilitator/assistant clinician for first 20 days,
- Leas adventure facilitator/lead clinician role with approved in-the-field supervision for the last 20 days

Group supervision
- 1 hour group supervision per 1 WAT day,
- 2 hours group supervision per expedition

Advanced WAT Course

Advanced Course= specialized WAT knowledge and skill development (5 days)

Prerequisite: Intermediate WAT Course + advanced supervised independent WAT experience and additional complimentary training, eg. adolescent group therapy or family therapy

WAT Applications of Theories of Therapy
- Person-centered Therapy
- Cognitive Behavioural Therapy
- Psychodynamic Therapy
- Systems, Solution Oriented, Strategic and Brief Therapies
- Narrative Therapy
- Eco-psychology and mental health
- An integrative approach

Culturally Informed WAT Practice
- The meaning of the wilderness adventure medium in different cultures
- Working with indigenous populations
- Gender and power issues

Working with Families
- Parent therapy
- Family Wilderness Adventure Therapy
- Couples Wilderness Adventure Therapy

WAT Interventions targeting individual needs
- Understanding the needs of the client
- Developing the therapeutic relationship
- Developing a 'contract' for therapy
- Working with resistance, conflict and crisis
- Psychological holding and containment

Linking WAT to other therapeutic interventions
- Linking WAT to individual therapy
- Linking WAT to family therapy
- Linking WAT to other group therapy
- WAT within broader Case Management
- Advanced Systemic WAT program designs

Evidence based, theoretically driven practice
- Key theoretical concepts: risk & resilience, coping, and systems frameworks
- An integrative holistic model of WAT
- Outstanding research questions – implications for practice

Professionalism

Individual Supervision Unit

Individual Supervision Unit = integrating WAT theory and field experience (40 WAT field days) + individual supervision: 20 x 1 hour sessions = 20 hours

Prerequisite: Advanced WAT Course + concurrent approved field experience

Concurrent field experience

- Lead adventure facilitator / lead clinician with off-site supervision

Individual supervision

- 1 hour individual supervision per 2 WAT day,
- 2 hours individual supervision per expedition

WAT Adventure & Clinical Facilitator Exams

While adventure facilitator and clnical facilitator exams would differ, they would each involve the following:

a) 1 x written paper – 3 hours

b) 4 x WAT case studies; ~1200 words each

c) 1 x oral exam (interview) – 60-90 minutes

A pass in each of these three exam components would be required for a trainee to be successfully accredited.

New Wilderness Therapy Certification Down Under

The Outdoor Network - *October 21, 2003* By Jake Martin

WILDERNESS ADVENTURE THERAPY COURSE OFFERS INDIVIDUAL CREDENTIAL

The new Introduction to Wilderness Adventure Therapy (WAT) course, slated for December in Melbourne, Australia, provides a first step in training to become a wilderness adventure therapy practitioner Down Under.

"This is a national scheme that my organization has established in the absence of any professionalization structures being offered, or likely to be offered elsewhere," said Dr. Simon Crisp, an adjunct research fellow at Swinburne University, Australia, and a clinical psychologist who has been practicing and teaching WAT for 11 years.

The course is sponsored by Neo Youth Psych Consulting, which partnered with Dr. Crisp to establish the Australian WAT Accreditation Scheme. Neo YPC claims that the WAT program is the "only training and accreditation scheme in wilderness adventure therapy available" in the country.

Neo YPC believes that science (research), practice (services), and learning (training) should reciprocally inform each other. Dr. Crisp favors an individual credential (commonly known as a certification in North America) as opposed to program-based accreditation.

"I see this process as ideal, rather than university-based courses, or legislative regulation, and the only way that any forward directions towards professionalization are likely to occur," said Crisp. Crisp has also completed doctoral research into the effectiveness of WAT in reducing mental health and suicide risk factors in adolescents.

The five day course takes place in December, and is designed as an introduction to wilderness therapy and a precursor to further WAT training courses. It addresses both wilderness adventure providers and therapeutic professionals with integral WAT concepts and methods, and serves as a link between the professional fields of adventure programming and therapy.

Specific topics covered in the course include managing physical and psychological boundaries, therapeutic outcome and process evaluation, and effective and ineffective WAT teams: clinical & adventure trained staff roles.

Crisp's focus is on the development of adventure therapy as a professional field. "It is my intention that this scheme will ultimately be absorbed by an Australian and New Zealand professional peak body that will be proposed next year," he said.

For more information about the accreditation course see www.voea.vic.edu.au/pd/WAT_Course.pdf. For more on Neo YPC, visit www.youthpsych.com.au.

Contact Jake Martin at jake@outdoornetwork.com or 303-444-7117 ext 116.

Australian and New Zealand Outdoor Adventure NEWS

MEDIA RELEASE

Accreditation Scheme in Wilderness Adventure Therapy gains momentum

By Dr. Simon Crisp
April 18, 2004

The Australian Wilderness Adventure Therapy Practitioner Accreditation Scheme is the only established pathway to gain formal recognition of competency in the delivery of Wilderness Adventure Therapy (WAT).

The Scheme is an accessible series of training courses integrated with supervised (approved) experience that continues to gain support from the field as it expands across Australia.

It is expected that the scheme will be established in New Zealand later this year.

The training is based on competencies required to deliver WAT as specified in the recently released Practice Guidelines for WAT (Crisp & Noblet 2004).

The scheme is based around dual-discipline WAT Teams that include fully qualified outdoor leaders combined with fully qualified therapists.

More details available: training@youthpsych.com.au

http://www.adventurepro.com.au/news/index.pl?action=details&id=1082292925AccreditationSchemein