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

Organisation Name
N/A

Name
Recommendations Regarding Provisions of Services for Migraineurs Jared Mclean

What are your suggestions to improve the Victorian communitys understanding of mental illness and reduce stigma and discrimination?
Awareness campaigns and education in the workplace. NDIS orientation to be included in any workplace training as an option of the employer.

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?
"Organizations are reactive, we need more pro-active solutions to prevent mental illness. Primary and High-Schools need to be teaching the maintenance of mental health. We should not be waiting until year 12/university for students to be learning about basic psychology..."

What is already working well and what can be done better to prevent suicide?
"helplines are great. However, an on-call medication that relieves suicidal ideation may assist.."

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.
Society is becoming more polarised and social media has magnified social comparison. Social norms are strong and fluid creating much uncertainty. This greatly contributes to anxiety and depression. We live in a capitalist world that rewards psychopathy more than empathy. This is why it is important that every Australian member of society embraces the vision of the NDIS.

What are the drivers behind some communities in Victoria experiencing poorer mental health outcomes and what needs to be done to address this?
"Education, Stigma, discrimination, Increase awareness, educate children about equality, disability, and mental health."

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

Recommendations Regarding Provisions of Services for Migraineurs

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Recommendations Regarding Provisions of Services for Migraineurs

Migraines are painful and debilitating headaches with symptoms that typically include: moderate to severe headache pain with a unilateral proximity, pulsating, nausea and/or vomiting, and photophobia with phonophobia ("Headache Classification Committee of the International Headache Society (IHS) The International Classification of Headache Disorders, 3rd edition", 2018). The frequency at which migraines occur determines which type of migraine is diagnosed: Episodic Migraine (EM) occurs ≤ 14 days/month and Chronic Migraine (CM) occurs ≥ 15 days/month (Lipton & Silberstein, 2015). Prevalence of migraine is more common amongst women (17.1%) than men (5.6%) and has approximately 50% heritability (Lipton et al., 2011; Mulder et al., 2003).

The effects of migraine have a large impact on individuals and their families. Migraineurs with EM are at greater risk of comorbid mental health issues of depression, anxiety and obesity, which add risk to transitioning to CM or chronification (Ashina et al., 2012). Individuals with CM have higher rates of chronic pain, depression, anxiety, post-traumatic stress disorder, and suicidal ideation than EM patients (Buse, Silberstein, Manack, Papapetropoulos & Lipton, 2012). Further, Patients with CM have been shown to be at higher risk of developing cognitive decline, especially for attention, memory, and processing speed (Golovacheva, Pozhidaev & Golovacheva, 2018). Thus, CM causes significant loss of productivity which can reduce employment and academic achievement resulting in lower socioeconomic status for CM patients and their families (Rees & Sabia, 2011; Scher et al., 2017).

Migraine also effects the broader community, in 2016 migraine headache was estimated to be the second leading cause of years lived with a disability worldwide, with approximately 1.04 billion people suffering migraine globally (Vos et al., 2017). In 2018 migraine affected

approximately 4.9 million people in Australia costing the economy over $40 billion dollars ("Migraine in Australia whitepaper | Deloitte Australia | Deloitte Access Economics report, Health", 2019). Chronification occurs in approximately 2.5% of EM patients annually in the average population adding significant costs for the individual and to the economy (Garza, 2009).

This policy document will analyze the effects of migraine, evaluate current management and treatment options, and recommend actions to minimize the impact of migraine and associated mental health problems in Australia.

Effects of Migraine

Migraine headache is thought to arise from dysregulation of trigeminovascualr neurons in the thalamus which are constantly exposed to several opposing neurotransmitters/neuropeptides such as glutamate, noradrenaline, serotonin, and dopamine (Noseda, Borsook & Burstein, 2017). Meta-analysis of MRI studies has revealed that long term migraine is associated with white and gray matter losses in the pre-frontal, temporal, parietal, and occipital cortices and higher densities of white and gray matter in the pons and the PAG (Bashir, Lipton, Ashina & Ashina, 2013). Additionally, researchers who have used Functional Magnetic Resonance Imaging (fMRI) have consistently found less functional connectivity in neurological networks for pain, default mode, executive control, and more alterations in periductal gray matter in long term migraineurs than in healthy controls (Yang et al., 2018; Tessitore et al., 2013; Colombo, Rocca, Messina, Guerrieri & Filippi, 2015). Patients with CM have been distinguished from EM patients by higher rates of medical resource use, depression, anxiety, chronic pain, lower socioeconomic status, and lower health related quality of life (Buse, Manack, Serrano, Turkel & Lipton, 2010; Goadsby et al., 2010). These factors have been found to be associated with high levels of attempted suicide in CM patients (Friedman, Zhong, Gelaye, Williams, & Peterlin, 2017).

Further, EM is typically not as responsive to medication as CM and has epidemiological distinctions (Katsarava, Buse, Manack & Lipton, 2011). The psycho-social cost to migraineurs has been found to be greater than patients with Parkinson's disease, multiple sclerosis, stroke, and epilepsy (Leonardi, 2014). Family time, leisure time, and being able to provide an income all being affected in most cases reducing participation (sometimes entirely) in the workforce (Rees & Sabia, 2014; Dueland, Leira, Burke, Hillyer & Bolge, 2004).

Management and Treatment

There is currently a lack of effective condition specific medications used in the treatment and management of migraine which has resulted in pain medication being commonly over-used, further-compounding patient health (Sprenger & Borsook, 2012). Most current treatment plans for chronic migraine consist of managing triggers, lifestyle changes, use of medication for acute symptoms, and use of medication for prevention (Weatherall, 2015). Biomarkers for migraine are still yet to be clearly established but there is growing interest in Pituitary adenylate cyclase-activating peptide 38 (PACAP38) which is a vasodilator that correlates with headache attack and severity (Schytz et al., 2008; Veréb et al., 2018). Meta-analysis has revealed that the use of triptans (serotonin agonists) when compared to control groups significantly reduces days off work in most studies analyzed (Burton, Landy, Downs & runken, 2009). Similar findings were achieved in a later meta-analysis of 74 studies which found that eletriptan is approximately 68% more likely than other triptans to produce a pain free response after two hours when used as an abortive treatment for migraine (Thorlund et al., 2013). Other effective drugs Erenumab and fremanezumab target the trigeminal sensory neuropeptide calcitonin gene-related peptide (CGRP) and its receptor which are found throughout the central and peripheral nervous systems and stomach (Edvinsson, 2018). There are two types of GGRP (CGRP II and CGRP I) which

compete for acid or alkaline secretion in the stomach (Berlinger et al., 1988). Further, higher blood levels of GGRP correlate with migraine severity (Hay & Walker, 2017). Thus, in EM patients, erenumab (a GGRP receptor antagonist) can reduce the number of migraine days p/month by an average of five days more than placebo over 575 days (Ashina et al., 2017). However, in CM patients, erenumab was only found to be half as effective (Tepper et al., 2017). Fremanezumab (antibody of GGRP) has been found to be effective as an add on treatment for EM and CM patients who were simultaneously being treated with other drugs by reducing migraine by an average of five days more than placebo conditions over 12 weeks (Cohen et al., 2017). Non pharmaceutical treatments include Cognitive Behavioural Therapy (CBT) which can be effective for CM patients with comorbid psychiatric conditions, improving life quality and reducing migraine days/month by approximately five after six months of treatment (Onur, Ertem, Uludüz & Karşıdağ, 2017). A meta-analysis that compared 14 trial experiments found CBT exposed adolescents were nine times more likely to reduce headache frequency by over 50% than all other controls (Isaacs, 2018). This illustrates that a large portion of migraine attacks (at least in adolescence) may be significantly influenced by cognitive/behavioral processes in the migraine experience. CBT can include relaxation, managing positive thinking, identifying/avoiding crisis phases, and using communication effectively (Dowson et al., 2004).

Long-Term Actions and Recommendations

The extent to which migraine effects individuals, their families, and the broader community warrants an awareness campaign. Awareness campaigns have shown to increase comfort of mentally ill people, heighten intention of help seeking, and increase disclosure to family and work colleagues (Henderson, Robinson, Evans-Lacko & Thornicroft, 2017). Provision of education programs for migraineurs should focus on why medication cannot currently eliminate

migraine pain with a focus on acceptance of a level of pain as this has been found to be preventative of medication overuse (Lauwerier, Paemeleire, Van Damme, Gouert & Crombez, 2011). Patients with EM that occurs 9-14 days/month (especially comorbid) should be offered trial drugs such as triptans, erenumab, and fremanezumab which are likely to reduce frequency and assist in avoiding chronification.

To Support the health workforce an independent migraine sector should be established that integrates public health services, social services, and doctors to identify and monitor current risk levels of suicide and chronification in migraineurs. Streamlining screening, referral, and case management will ultimately simplify treatment of migraine, ensure best practice, allow for potential data collection, and support migraineurs navigating the system. Similar recommendations have been made previously for improving outcomes of disadvantaged workers with comorbid chronic conditions (Kneipp & Desjardins, 2017). Adolescents who report having migraine should be granted or substantially subsidized for six months of CBT treatment, as this is currently one of the most effective early treatments for preventing migraine and its comorbidities (Ng. Venkatarayanan & Kumar, 2016). Additionally, CBT could be performed periodically to ensure no relapse to greater frequency of migraines. To support family members and/or carers of migraineurs, specialized on-call visiting doctors should be made available who can make an accurate risk assessment and prescription in the home of the patient. In the case of suicidal ideation, a safe dose of ketamine can be administered as it can reduce suicidal ideation by 50% amongst depressed individuals which is commonly co-morbid with migraine (Grunebaum et a., 2018).

Based on the discussed literature, funding should be raised for research into the relationship between migraine and the serotonergic brain and gut structures/functions related to

GGRP, and PACAP38. These recommendations in the long term will lead to improved outcomes for migraineurs.

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