Policy Document to explore services to alleviate the effects of Chronic Migraines and Mental Illness

Tylah McGregor

La Trobe University

Bendigo

Word Count: 1498

Policy Document to explore services to alleviate the effects of Chronic Migraines and Mental Illness

Migraine is a common and disabling neurological condition of reoccurring moderate to severe headaches (Deloitte Access Economics, 2018; Headache Classification Committee of the International Headache Society, 2018). In 2018, it was estimated that 4.9 million Australians, majority of them being younger working aged women, suffer with the pulsating of one side of their head, nausea, vomiting and other symptoms caused by migraines (Deloitte Access Economics, 2018). The severity of migraines is on a spectrum, ranging from episodic migraine to more severe and quality of life impairing chronic migraines (Katsarava et al., 2012). For this policy document, the focus will be on chronic migraine which is defined as experiencing headaches for at least 15 days per month for at least 3 months according to the IHCD's diagnostic criteria (IHS, 2018). There are also different types of migraines. Migraines without aura have symptoms of severe pulsating, nausea and becomes more severe when trying to continue with routine physical activity (IHS, 2018). Whilst migraines with aura refers to the neurological symptoms involving sensory systems such as vision and the central nervous system, having impairments usually occurs before the headache appears (IHS, 2018).

The symptoms experienced by people who suffer with chronic migraines can negatively impact their quality of life as well as the quality of life for their family and friends around them (Blumenfeld et al., 2011). This negative impact of their lifestyle is a result of the mental illnesses such as depression and anxiety being reported by people who suffer with chronic migraines (Blumenfeld et al., 2011). Currently the Victorian Government Royal Commission into Mental Health does not acknowledge migraine as an impairment on the health system. Therefore, this policy document will explore possible services that should be implemented for people who suffer

with chronic migraines to help alleviate the mental illnesses associated with the neurological condition.

Effects of Migraine

People who suffer with chronic migraines experience negative effects to each part of the bio-psycho-social model. When studying the biological negative effects of chronic migraine, studies have linked the migraine symptoms to neural pain networks, specifically the trigeminovascular system (Edvinsson & Warfvinge, 2019). The trigeminal ganglion has receptors for the neuropeptide calcitonin gene-related peptide (CGRP) (Edvinsson, 2018; Edvinsson & Warfvinge, 2019). Studies found evidence of CGRP levels being increased in individuals experiencing a migraine attack, which also enhanced the transmission of pain signals in the CNS (Goadsby, Edvinsson & Ekman, 1990). CGRP antagonists are utilised to prevent head ache attacks, highlighting that CGRP is related to the pain experienced with migraines (Edvinsson, 2018).

There has also been evidence that has linked lower levels of the neurotransmitter 5-HT and migraines, which is related to the mental illnesses depression and anxiety experienced by people who suffer with chronic migraines (Ferrari & Saxena, 1993). This then relates to the psychological aspect of the bio-psycho-social model, as depression and anxiety have negative effects on people with chronic migraines (Blumenfeld et al., 2011). These negative effects include cognitive impairments and suicide ideation due to the person experiencing a migraine attack needing bed rest (Blumenfeld et al., 2011). As these chronic attacks are occurring frequently, there is then immense stress not only for the patient, but the family. Besides a change in the patients behaviour due to the mental illness, they are also unable to assist in household

work as they must remain in bed until the attack subsides, causing stress for family members (Blumenfeld et al., 2011).

This connects to the social aspect of the bio-psycho-social model, as people with chronic migraines are forced to take time off work (Blumenfeld et al., 2011). This then puts more stress of the patient as they are unable to work and some are even forced to quit their jobs as they are experiencing chronic migraines frequently (Blumenfeld et al., 2011). This also causes an indirect cost for the community as people with chronic migraines who are employed need to take medical leave when experiencing an attack (Stewart et al., 2010). When studies assess chronic migraine health-related quality of life (HRQoL) compared to episodic and healthy participants, chronic migraine participants report significantly lower HRQoL and higher levels of depression and anxiety (Blumenfeld et al., 2011). These results support the finding that people suffering with chronic migraine report having to take more days off work, causing an economic burden that affects the broader community (Blumenfeld et al., 2011).

Management and Treatment

When trying to treat chronic migraine the primary objective is to alleviate the pain to allow people to function normally and not have their HRQoL negatively affected (Lipton & Silberstein, 2015). There are not only pharmaceutical treatments available for patients with migraine, but also psychological and preventative therapies available to help reduce stress and improve mental health (Lipton & Silberstein, 2015). Patients should consult with a physician to find an acute treatment that is specific to the type of symptoms they experience (Lipton & Silberstein, 2015). Acute treatments are medications that patients take when they are experiencing an attack and need to relieve the pain through paracetamol, aspirin or triptans (Katsarava et al., 2012). However, there is a risk when just taking these acute medications

frequently when a migraine attack is experienced as people can develop medication overuse headache (Lipton & Silberstein, 2015). Therefore, a more suitable treatment would involve trying to prevent the occurrence of migraines to avoid medication overuse headache.

Patients with chronic migraine are strongly advised to have preventative treatments by making changes to their lifestyle (Lipton & Silberstein, 2015). Preventative therapy involves patients focusing on lifestyle factors they can control such as getting enough sleep in the hope these changes can help to reduce stress and positively impact their mood, however it is reported that patients tend to be poorly responsive or non-compliant to preventative therapies (Lipton & Silberstein, 2015).

This leads to some patients choosing to take preventative pharmacotherapies that avert migraine attacks from occurring (Lipton & Silberstein, 2015). There are many preventative medications that different patients take for different symptoms, but a recent study has found evidence that CGRP- antagonism is an effective preventative management for chronic migraines (Edvinsson & Warfvinge, 2019). These antagonists prevent the rapid release of CGRP, therefore preventing the pain experienced in migraines from occurring (Edvinsson 7 Warfvinge, 2019).

Long term actions and recommendations

From all the evidence above, it is clear that different patients will have different experiences and thoughts on what treatment and management therapies work best. The best place to start when trying to help people, families and communities effected by any form of migraine attack is to focus on education. The Victorian Government Royal Commission into mental health should promote educating people on migraines in a similar form that the government does for healthy eating; that is, by educating people on the healthy eating pyramid. The patient will benefit from understanding why it is that they are experiencing these attacks and what is causing

the pain. Being educated on the condition will also help improve their mental health as the patient will understand what chronic migraine is and therefore give them hope to seek appropriate management methods, elevating their mood and reducing stress. It should not only be the patient themselves that are educated but the family and community around them. If the family is educated on the condition and the treatment the patient is undergoing, it can help reduce stress and therefore decrease anxiety and depression for the patient.

There should also be more available and clear information given to employers on the disabling effects of migraine and why it is important to support their employees in helping them adapt their lifestyles to prevent attacks. The supportive environment of a patient's work place will reduce stress, once again helping their mental health and the risk of an attack occurring.

More research should also be conducted on the CGRP antagonists and other medications that can prevent the attacks from occurring. If past studies are revealing results of people finding it difficult to adhere to more psychological preventative methods, then the option for preventative medications should be a reliable resource.

Studies are highlighting an issue with patients adhering to psychological preventative therapies, then researchers should try to adapt and change these methods for each patient. There is evidence to suggest that stressful life events such as divorce or employment changes increase the risk factor of chronic migraines (Katsarava et al., 2012). Therefore, preventative therapies should not focus on risk factors such as sleep amount as much, but help these patients seek out other health professionals such as clinical psychologists, who can help these patients develop stress management strategies. If patients are seeking out professional help for their mental health by addressing the mental illness such as depression and anxiety which are related to chronic

migraines, this should help prevent suicide and other serious concerns for people with chronic migraine.

In conclusion, the royal commission needs to start educating people on the serious disabling neurological disease that are chronic migraines to help improve people's quality of life.

References

Blumenfeld, A.M., Varon, S.F., Wilcox, T.K., Buse, D.C., Kawata, A.K., Manack A., Goadsby, P.J., & Lipton, R.B. (2011). Disability, HRQoL and resource use among chronic and episodic migraineurs: Results from the international burden of migraine study (IBMS). Cephalalgia. 31(3). 301–315. doi: 10.1177/0333102410381145

Deloitte Access Economics (2018) Migraine in Australia whitepaper: Measuring the impact. Retrieved from https://www2.deloitte.com/au/en/pages/economics/articles/migraineaustralia-whitepaper.html

Edvinsson, L. (2018). Headache advances in 2017: A new horizon in migraine therapy. *The Lancet Neurology, 17*(1), 5-6. doi: 10.1016/S1474-4422(17)30415-5.

Edvinsson, L., & Warfvinge, K. (2019). Recognizing the role of CGR1P and CGRP receptors in migraine and its treatment. *Cephalalgia : An International Journal of Headache, 39*(3), 366-373. doi: 10.1177/0333102417736900

Ferrari, M., & Saxena, P. (1993). On Serotonin and Migraine: A Clinical and Pharmacological Review. *Cephalalgia, 13*(3), 151-165. doi: 10.1046/j.1468-2982.1993.1303151.x

Goadsby, P., Edvinsson, L., & Ekman, R. (1990). Vasoactive peptide release in the extracerebral circulation of humans during migraine headache. *Annals of Neurology, 28*(2), 183-7. doi: 10.1002/ana.410280213

Headache Classification Committee of the International Headache Society (IHS) The International Classification of Headache Disorders, 3rd edition. (2018). Cephalalgia, 38(1), 1–211. doi: 10.1177/0333102417738202

Katsarava, Z., Buse, D. C., Manack, A. N., & Lipton, R. B. (2012). Defining the differences between episodic migraine and chronic migraine. Current Pain and Headache Reports, 16(1), 86–92. doi: 10.1007/s11916-011-0233-z.

Lipton, R. B., & Silberstein, S. D. (2015). Episodic and chronic migraine headache: Breaking down barriers to optimal treatment and prevention. Headache. 55(Suppl 2), 103–122. doi: 10.1111/head.12505_2.

Stewart, W.F., Wood, G.C., Manack, A.C., Varon, S.B., Buse, D., & Lipton, R.(2010). Employment and Work Impact of Chronic Migraine and Episodic Migraine. *Journal of Occupational and Environmental Medicine, 52*(1), 8-14. doi: 10.1097/jom.0b013e3181c1dc56