Medicinal Marijuana & Epilepsy.

By Libby Quensell.

Should medicinal marijuana be legalised in New Zealand for people who suffer from pharmacoresistant seizures or epilepsy ?

Introduction.

Epilepsy is one of the most common neurological conditions in the world, it is thought that epilepsy affects over 60million people worldwide, with 1-2% of New Zealanders suffering from epilepsy (Alexopoulos, 2013; Epilepsy New Zealand, 2017). When signals in someone's brain get mixed up, it is called a seizure, side effects of seizures can range from short pauses, to twitching or muscle spasms that can occur throughout the body, epilepsy can be a cause of these seizures (Ministry of Health, 2015).

Clinical Issue.

Some epilepsy sufferers, approximately 30%, experience pharmacoresistance, which is when the individual cannot control their seizures with first line anti-epileptic drugs (Remy & Beck, 2005). Moreover, Those who suffer from focal epilepsy are more likely to develop pharmacoresistance in comparison to generalised epilepsy sufferers (Pati & Alexopoulos, 2010). With such a high percentage of epilepsy sufferers being pharmacoresistance it is important for nurses to have knowledge of alternative medications to be able educate patients and their families.

Findings.

- Cannabidiol is the non-psychoactive component of marijuana that has a sedating effect and is the more desirable component for its anticonvulsant properties (Devinsky, Cilio, Cross, Fernadez-Ruiz, French, Hill, Katz, Di Marzo, Jutras-Aswad, Notcutt, Martinez-Orgado, Robson, Rohrback, Thiele, Whalley & Friedman 2014).
- Most clinical trials which observed the effects of cannabidiol on seizures were done in the 1970s and were inconclusive and had weaknesses in methodology (Devinsky et al, 2014).
- There have been reports in the media, mainly in the USA in states where medicinal marijuana is legal, where pharmacoresistant epilepsy sufferers state having sudden and drastic improvement of seizures after using cannabidiol-based products (Devinsky et al, 2014).
- Not all with pharmacoresistant epilepsy have access to cannabidiol-based products and source marijuana illegally, which often has the wrong ratio of cannabidiol which can have the opposite effect and make seizures worse (Maa & Figi, 2014).

Where to from here.

Although there is a lot of evidence backing medical marijuana and its anticonvulsant properties for patients with pharmacoresistant epilepsy from peoples personal accounts which were represented in the article written by Maa & Figi as well as its historical use for seizures (2014), there is definitely a lack of scientific backing and clinical studies on the use of medicinal marijuana for the purpose of treating epilepsy (Devinsky et al, 2014). After reading a wide range of literature I have come up with the recommendation

- that New Zealand should not legalise marijuana for the treatment of epilepsy and seizures due to the lack of scientific evidence to its anticonvulsant features, but should possibly put some funding into more research and keep prescribing medicinal marijuana on a case by case basis under the exemption scheme.

References.

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PECOT category	Information relating to question.	Rationale.
Population	People over the age of 15 who suffer from regular seizures or have been diagnosed with epilepsy.	This is due to the fact that seizures and epilepsy can occur at all ages.
Exposure/ intervention	Children and adults that suffer from epilepsy and/ or seizures that have or may be using medicinal marijuana to treat the symptoms of seizures and epilepsy.	I will be researching articles that have studied the effects of medicinal marijuana on seizures and epilepsy, as well as articles that discuss the legalisation of medicinal marijuana in New Zealand.
comparison	Other countries that have already approved the use if medicinal marijuana.	To be able to compare the difference between using medicinal marijuana and conventional therapies and its effects on seizures and epilepsy.
Outcome	The associations of legalising medicinal marijuana and the effects it has on the symptoms of epilepsy and seizures	This is researched so I am able to see what issue may arise with legalising medicinal marijuana in New Zealand and also the probability of weather or not legalisation of Medicinal marijuana will occur in the future.
Time	Long Term	Long term as it is for the long-term management of epileptic symptoms and seizures.

Rationale:

Visual learning is a style of learning in which an individual can correlate information with images in which can be presented as a poster (Mayer & Massa, 2003). Posters have been proven to be an effective medium to present information in a way that allows nursing students to process and solidify new information (Sorenson & Boland, 1991).

A poster also allows its viewers to view an author's work for several hours to several days, dependant on the timeframe that the author's work is on display, in which during this time the author will present their findings to their viewer's (Gosling, 1999). Poster presentations have multiple advantages for communicating with your target audience, the display of research findings combined with visual and verbal information by utilising illustrations, written text and a spoken explanation by the author (Gosling, 1999). Due to these advantages and the timeframe that a poster can be on display thus, allowing the target audience to process your findings, this can provide a foundation for in-depth discussion with others who are passionate about your topic. These discussions will develop the student's communication skills and gives rise to openings for peer learning.

References:

Gosling, Peter J. *Scientist's Guide To Poster Presentations*. New York: Kluwer Academic / Plenum Publ, 1999. Print.

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