

Cannabis and Psychosis

Research Question

Can using cannabis on a regular/weekly basis, under the age of 25 years, increase the risk of developing Psychosis?

Clinical Issue

I chose this topic due to my interest with substance use in relation to mental health.

Looking at how cannabis use is increasing in New Zealand and around the world, and the fact cannabis has been in the media for many reasons both positive and negative. I would like to look into how cannabis can affect a person when used regularly and whether it could be a contributing factor to psychosis.

Cannabis is known to be the most commonly used illicit drug used in the world and in New Zealand, and the third most used drug following alcohol and tobacco (Ministry of Health. 2015).

According to studies done by the Drug Foundation New Zealand (2017). At least 44% of adult New Zealanders will try an illicit drug at some point in their lives, and with cannabis being the most common I would say the majority would try cannabis.

Recommendations

It is important for people who have experienced psychosis, and their families to be educated around the signs and symptoms of psychosis, and where, when and how to get the help they require.

I think it is also important for society to be educated around the signs and symptoms of psychosis, and also the side effects they cannabis can cause, in case they are ever faced with this they know how to act appropriately and get also how to get help if required.

What Is...

Psychosis:

Psychosis is an altered sense of thinking and state of mind where it is hard for you to tell what is real. You may have hallucinations and hear voices in your head or have beliefs that someone is trying to harm you or directing you to do something.

Cannabis:

Cannabis is a substance that comes from a plant, which can also be known as hemp/ marijuana. The substance can be smoked or eaten, and the by-products of the substance can cause a euphoric effect (Cannabis Information & Support. 2017).



Psychosis awareness

Findings

Within my research for my literature review, I found many connections between cannabis and psychosis, and a few different theories as to how one may affect the other.

According to a study done by the Dunedin Multidisciplinary Health and Developmental Study (2015), they found that individuals who used cannabis regularly by the age of 15-18 years presented with more psychotic symptoms than the control group had (which were those who had not used cannabis).

One study had looked at the effects on the developing brain and how using cannabis at an adolescent age can have a greater affect as under the age of 25 years the brain is still developing and is at a more vulnerable stage of development where cannabis can have a greater affect and may be vulnerable to produce psychotic like symptoms (Malone, Hill & Rubino. 2010).

Based on the 'Why Am I' documentary developed by the Dunedin Multidisciplinary Health and Development Study called "*When Genes Mix with the Wrong Environment*" It explains, when people are exposed to a certain environment it can change the way certain genes they have are expressed, in this can if a person is exposed to regular cannabis used it can trigger specific genes which may cause them to experience psychosis (Dunedin Multidisciplinary Health and Development Study. 2015)

Although there is not a clear association between the two, some research has also found that there could be a reverse effect to what we think. Meaning that it could in fact be psychosis that is causing cannabis use, as a person who has psychosis may be more likely to experiment with substances and use cannabis (Power. Et al. 2014).

Conclusion

In conclusion there are many possible connections between cannabis and psychosis and a lot of research that has been done showing links between the two. There are different theories that show these connections such as, psychosis leading to cannabis use, cannabis affecting the brain during development and causing psychosis, or being exposed to a certain environment that can cause the psychotic genes to be triggered. I have found that there are many common associations with cannabis and psychosis although most are only theories and more research is needed to prove these theories.

References:

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- Drug Foundation. (2017). *Drug use in nz*. Wellington: New Zealand. At the heart of the matter: Drug Foundation New Zealand. Retrieved from the NZ Drug Foundation website: <http://www.drugfoundation.org.nz/policy-and-advocacy/drugs-in-nz/>
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- Malone, T. Hill, M. & Rubino, T. (2010). *Adolescent cannabis use and psychosis: epidemiology and neurodevelopmental models*. 160(3): 511-522. DOI 10.1111/j.1476-5381.2010.00721.x. Retrieved from the NCBI website: <https://www.ncbi.nlm.gov/pmc/articles/PMC2931552/>
- Ministry of Health. (2015). *Cannabis use 2012/13: New Zealand health survey*. Wellington: New Zealand Ministry of Health. Retrieved from the Ministry of health website: <https://www.health.govt.nz/system/files/documents/publications/cannabis-use-2012-13-nzhs-may15-v2.pdf>
- Power, R.A., Verweij, K.J., Zuhair, M., Montgomery, G.W., Henders, A.K., Heath, A.C. et al. (2014). *Genetic predisposition to schizophrenia associated with increased use of cannabis*. *MolPsychiatry*. 2014;19:1201-1204

PECOT Category	Information relation to question	Explanation
Population	People of any gender under the age of 25 who have used cannabis on a regular basis (weekly) and anyone who has experienced any type of psychosis.	During this age frame people can become experimental with substances. Also it is a stage where the brain is still developing so this substance may have a greater effect during this time.
Exposure (Intervention)	Those who were exposed to cannabis frequently (weekly) under the age of 25 who have experienced psychosis.	This literature review will be focusing on the effect cannabis has people under the age of 25 who use cannabis on a regular basis and how it may have effected them. To see if using cannabis frequently under the age of 25 can cause psychotic symptoms later in life.
Comparison (Control)	Comparison between: Those who have been exposed to cannabis on a weekly basis who have not experienced psychosis <u>OR</u> those who have not been exposed to cannabis who have experienced psychosis. To those who have not used cannabis.	To see whether cannabis could be linked to psychosis as the results would be greater in those who have used cannabis and experienced psychotic presentations opposed to those who have not.
Outcome	To see whether cannabis is a factor that can lead to psychosis. “Drug induced psychosis”	We may be able to see a trend or links between cannabis and psychosis and what may be causing this link.
Time	N/A	N/A

Whitehead, D. (2013).

Summary of Rationale

I have chosen to present my clinical issue as a poster because I think it is quite an interesting topic to be able to discuss. Cannabis has been in the media a lot for many reasons both positive and negative and I think due to this many people have their own opinions around the topics. I believe that presenting this as a poster I can add brief information and finding from my literature review and as people see it, it may open discussion for others to share their knowledge and experience around this topic. Also, because my findings do not show that cannabis does cause psychosis, I think my poster is more raising awareness around psychosis and to get people thinking about the affects cannabis can have on people not only in this way, but it can open up discussion, to other affects, or even other substances that may have a similar affect. I have also used the colour green for my poster as it represents cannabis, and also the colour green represents psychosis awareness.

References:
Whitehead, D. (2013). Identifying research questions, statement and hypothesis. In Z. Schneider, D. Whitehead, G. LoBiondo-Wood, & J. Haber (Eds). Nursing and Midwifery Research methods and appraisal for evidence-based practice (4th ed.). (p. 57-76).Sydney, Australia: Mosby Elsevier