Cannabis and psychosis

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This is the first article in a series of case files from general practice exploring treatment issues around substance use commonly encountered general practice presentations.

BACKGROUND
Cannabis use is commonly identified in people who present with psychosis.

OBJECTIVE
This case study aims to provide a practical approach for general practitioners seeing patients with comorbid cannabis and mental health concerns.

DISCUSSION
Cannabis related comorbidity is commonly seen in general practice. General practitioners can manage most presentations and help to reduce the likely occurrence of cannabis induced psychosis through the use of psychosocial support, brief interventions and harm minimisation.

Case history – Dan

Dan, 20 years of age, was recently discharged following a month in the local hospital psychiatric ward after presenting to the emergency department (ED). His parents had taken him to the ED concerned about his statements of 'hearing voices'.

Dan smokes a packet of tobacco a week, but prefers to smoke cannabis as it helps him to relax. He drinks alcohol only on weekends. His parents are aware of his substance use and fear he may move on to 'heavier drugs' such as heroin. Dan's health has always been good apart from mild asthma. He has just moved out of home and started an apprenticeship in carpentry. His parents, regular patients at your practice, have just brought him in to see you.

What is achievable at the first appointment?

The most important outcome of the first appointment is to undertake a risk assessment of Dan and to have the patient – and his parents – leave the consultation feeling you have listened to their immediate concerns and that you have a plan for dealing with the problem.

Confidentiality

General practitioners need to balance the competing needs of confidentiality and keeping the family on-side. At some point, it is important to see Dan by himself, but you will need to make a clinical decision as to whether this needs to happen at the first appointment or later. At the first consultation it is essential to set up some ground rules about your interaction with the family. This will help manage your dual responsibility without getting caught in any family conflict. Dan is your patient and you have a relationship with him that is separate from that with his parents. As the family GP, you will almost certainly have to manage the parents' concerns and any requests for information. However, Dan's agreement needs to be sought before any information is discussed with his parents. The initial ground rules will help manage these requests.

Addressing Dan's concerns

Ask Dan what has happened from his point of view and elicit his concerns. For Dan, the concern is likely to be the recurrence of the 'psychotic' episode. Assess his level of distress and risk of suicide, self harm and harm to others. Arranging a follow up appointment will give you time to seek information about his psychiatric admission. Remember, that

even specialist agencies with more resources often require several appointments to fully assess the situation.

Addressing the parents' concerns

A major concern for Dan's parents is likely to be their son's psychiatric prognosis and his use of illicit drugs. Common emotions experienced by parents include distress, stigma, shame and guilt,[1] and these need to be acknowledged.

Cannabis is the most commonly used illicit psychoactive drug in Australia[2] (*Figure 1*). There is good evidence to show that both acute and chronic use are related to physical and psychiatric harm.[3] Although a clear causal link has not been established, there is consensus that high doses of cannabis can cause a toxic psychosis ('cannabis psychosis') and that cannabis use can exacerbate existing psychosis.[4–7]

> Dan returns alone for an extended appointment. He appears to be well, with no current hallucinations. He is friendly and interacts freely with you, spontaneously offering information. His major concern is whether his 'hearing voices' and what he sees as his 'madness' will recur.

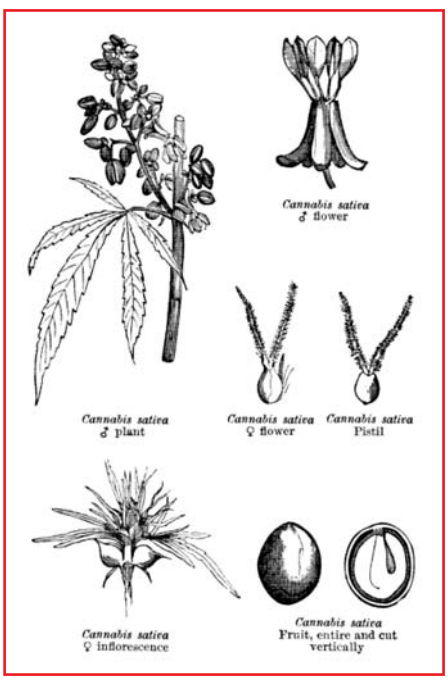

Figure 1. Cannabis plant

Before addressing Dan's question you provide him with this factual information. Then, in addressing his question, you need to consider the common differential diagnoses that might account for his psychotic episode. These are:

- 'cannabis psychosis'
- psychosis/schizophrenia
- other drug use, and
- other psychiatric and physical disorders.

You already know some details about Dan such as his age, but you also need to know about his:

- premorbid personality, eg. social relationships, mood, school performance
- history of drug use, eg. amphetamines, solvents
- HEADSS (*Table 1*)
- presence of current and past symptoms, and
- family psychiatric and medical history.

Many people who develop DSM-IV psychosis/schizophrenia show an inability to form early and close relationships.[9] Although of the right age for the first episode of psychosis/schizophrenia, Dan's normal premorbid social relationships and absence of family psychotic history, together with a recent increase in cannabis potency, suggest it is more likely his experience was related to his cannabis use.

> Dan is of the appropriate age for onset of first episode psychosis/schizophrenia. The first incident in most populations occurs in the early to mid 20s for men.[8] Dan has an aunt with depression but no family history of psychosis/schizophrenia. He has been smoking cannabis since the age of 15 years, increasing his use to every day about a year ago when he started earning money. During the 2 weeks before the episode, a friend had introduced him to a new variety of cannabis that he believed to be more potent (a higher content of delta-9-tetrahydrocannibinol or [ð-9-THC]). Dan found this gave him a great deal of confidence and wellbeing. Dan was never academically inclined but had done well enough in school, particularly in sport. There are also a few close friends from school with whom he keeps in touch. While he doesn't currently have a steady girlfriend, he indicates that he went out with the same girl for 3 years from 15 years of age.

Advising Dan to give up using cannabis

How to do this

People use drugs for a reason – to feel good or to help avoid bad feelings, or for a combination of reasons. Simply telling someone to stop substance use without understanding its context can increase resistance and render any subsequent advice irrelevant.

> Dan started using cannabis and other drugs at school to fit in with his friends. His current group of friends smoke tobacco and cannabis and drink quite heavily on the weekends.

Knowing that Dan's drug use is an important part of his lifestyle can help you frame your advice in a more nonjudgmental way. Some good 'first questions' to ask are outlined in *Table 2*. Establishing the positives in drug use for Dan helps to identify what needs to be done to replace his cannabis and other drug use. For example, Dan might identify that increased cannabis use has been a means of filling the social void that developed after the end of his relationship. An absence of social activities might also underpin his perception that he would find it difficult to cease his cannabis use. This might point to the value of focussing on increasing his social activities. If Dan is using cannabis to help him relax, a strategy to help him identify other nondrug ways of relaxing would be appropriate. It is important to assess the patient's perceived negative experiences from using drugs (*Table 2*).

The questions in *Table 2* will help Dan

Table 1. The HEADSS comprehensive adolescent psychosocial screening interview

Home	• Who's at home? • What are relationships like?
Education/Employment	• School performance • Current employment • Future plans
Activities	• What do you do for fun? • Sport • Family activities
Drugs and alcohol	• Used by peers • Used by self • Used by family
Sexuality	• Sexual experience and partners • STIs and contraception
Suicide/depression	• Risk of suicide

Adapted from: http://www.complab.nymc.edu/Pediatrics/HEADSS.htm

Table 2. Eliciting the role of drugs in a patient's life

Sample questions
Positive experiences
What do you like about cannabis?
What does cannabis do for you?
How do you feel when you take it?
Negative experiences
What are the downsides of your cannabis use?
Has cannabis use affected your health/work/relationships?
Providing motivation for behaviour change
Do you see a connection between getting into trouble at work and your cannabis use?
What do you see yourself doing in the future?
How does your cannabis use fit into this?

Dan was quite 'freaked out' about hearing voices and his subsequent hospitalisation. His episodes of asthma have also increased lately. On a couple of occasions he was late for work because of his cannabis use, and this lateness has caused tension with his employer. You can use this information to lead Dan to draw a connection between cannabis use and adverse effects.

assess how he feels about his cannabis and other drug use. People are often ambivalent about their drug use and haven't thought about the positives weighed against the negatives.

Cognitive dissonance

Cognitive dissonance occurs when there is incompatibility between personal beliefs and statements. For example, Dan would like to do well at work but his drug use interferes with this. Gently reflecting back the dissonance can help challenge behaviours. For example, 'So on the one hand you'd like to finish your apprenticeship, and on the other hand you like smoking cannabis which is getting in the way of that. Where does that leave you?' These techniques can be used to change behaviour and form one of the pillars of 'motivational interviewing'.[10]

Harm minimisation

Dan says that he won't smoke any more of the new form of cannabis but can't really see himself giving up completely. He wants to know whether it will be safe to go back to smoking his usual form of cannabis?

While it is ideal if Dan stops his substance use, the reality is that most behaviours are ritualistically built into the fabric of our daily lives. Behavioural change is a gradual process. People make decisions when they are ready, and while we may be able to influence these decisions, it is ultimately up to the individual to act on them.

At the same time, as GPs we cannot condone behaviours such as cannabis use that may have negative outcomes, in this case psychotic episodes. The bridge between these two seemingly opposing issues is easily found. It is possible to increase the likelihood that a patient will return for help when the time arrives for life changes by approaching them with a 'harm minimisation' and 'open door' strategy. Therefore, it is possibly less harmful for Dan to smoke the less potent form of cannabis.

Using the current window of opportunity to engage Dan in care means you can influence other health behaviours. Over time you can encourage a reduction in his tobacco and alcohol use, an improvement in diet, exercise and other lifestyle factors – and when the time is right – you can tackle his cannabis use.

While it is important to recognise that cannabis use does not precipitate psychotic episodes in all users, it has in Dan's case. You therefore explain this to him, and state clearly that although you will offer medical care regardless of his choice to continue using cannabis, you consider him to be at high risk of future psychotic episodes and that any further cannabis use may result in a recurrence of psychotic events and subsequent re-hospitalisation.

Immediate issues of importance to Dan are preventing the recurrence of the psychosis, and improving his asthma and his work situation. Focussing on these issues means that Dan is more likely to keep coming through the 'open door'.

It is also important to keep re-assessing his risk, and to assess for other psychiatric conditions such as anxiety and depression.

While on the basis of current and available information your assessment has been that this is a case of cannabis induced psychosis, the emergence of a more significant psychotic morbidity cannot be excluded. For example, the presence of a first degree genetic relative with a history of schizophrenia or psychosis would have likely altered your diagnosis to a possible early onset of psychosis/schizophrenia. It is therefore prudent to re-explore genetic and other risk factor information (already collected from the family) at a later date, and monitor for the presence of further psychotic sequelae, especially in the absence of cannabis and other drug use, on an ongoing basis.

Referral resources

There are a number of useful services for Dan and his parents. Good entry points into services are the alcohol and drug information telephone services which exist in each state. They provide general information about drugs, telephone counselling, and information about other resources such as local drug treatment and family support agencies (*Table 3*).

Conflict of interest: none declared.

Table 3. Resources

Websites

General drug information and links to alcohol and drug agencies across Australia
http://www.adin.com.au/a_d.html

Telephone services for patients (including 24 hour services)

General alcohol and other drug information and counselling services

Western Australia	(08) 9442 5000 (metro)	1800 198 024 (rural)
Tasmania	1800 811 994	
Northern Territory	(08) 8922 8399	(08) 8951 7580 (central)
New South Wales	(02) 9361 8000 (metro)	1800 422 599 (rural)
Victoria	1800 888 236	
Queensland	(07) 3236 2414 (metro)	1800 177 833
South Australia	1300 13 13 40	
Australian Capital Territory	(02) 6205 4545	

References

1. Tennakoon LA, Fannan D, Duku V, et al. Experience of care giving: relatives of people experiencing a first episode of psychosis. Br J Psychiatry 2000;177:529–553.
2. Australian Institute of Health and Welfare. 2001 National Drug Strategy Household Survey: first results. AIHW cat. No. PHE 35. AIHW (Drug Statistics Series No. 9). Canberra: AIHW, 2002.
3. Hall W, Solowij N. Adverse effects of cannabis. Lancet 1998;352:1611–1616.
4. Hall W, Solowij N, Lemon J. The health and psychological consequences of cannabis use. National Drug Strategy Monograph Series No. 25. Canberra: Australian Government Publishing Service, 1994.
5. Lingzen, DH, Dingmans, PM, Lenior ME. Cannabis abuse and the course of recent onset schizophrenic disorders. Arch Gen Psychiatry 1994;51:7–279.
6. Joy JE, Watson SJ Jnr, Benson JA, eds. Marijuana and medicine: assessing the science base. Washington DC: National Academy Press, 1999.
7. Hall W, Degenhardt L. Cannabis use and psychosis: a review of clinical and epidemiological evidence. Aust NZ J Psychiatry 2000;34:26–34.
8. Hustig HH, Norrie PD. Managing schizophrenia in the community. Medical Journal of Australia Practice Essentials Mental Health 1998. Available at: http://www.mja.com.au/public/mentalhealth/articles/hustig/hustig.html.
9. American Psychiatric Association. DSM-IV. Diagnostic and statistical manual of mental disorders. 4th edn. Washington: American Psychiatric Association, 1994;273–315.
10. Miller WR, Rollnick S. Motivational Interviewing: preparing people to change addictive behaviour. New York: Pergamon Press, 1991.

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