Cannabis and Mental Health

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Cannabis and Mental Health

1. Cannabis dependence
2. Cannabis withdrawal
3. Cannabis and psychosis
4. Cannabis and depression
5. Cannabis and anxiety

ADTRU

Cannabis Use

For many years cannabis had the status of being regarded as a “soft”, harmless, “party” drug.

Is this correct?

Cannabis and Mental Health

Has the drug and alcohol community been slow to recognise the burden of mental disorder imposed by cannabis?

ADTRU

Current Trends in Cannabis Use. I

Major changes in how cannabis is used from the early 1990s onwards:

- Switch from smoking leaf to the flowering part of the cannabis plant (“head” or “bud”), which is more potent
- Switch from smoking joints to using bongs or pipes

Current Trends in Cannabis Use. II

- Switch from plantation-grown cannabis to local cultivation (avoids loss of potency)
- Switch to hydroponic cultivation (more crops)
- High potency variants (eg. “skunk”) are more widely available
- Cost decreased substantially in the 1990s
- Use increased
- Age of initiation into cannabis use declined

Cannabis Dependence

- Tolerance develops to many of the effects of cannabis (Compton et al., 1990)

- Sudden cessation of use produces a wide range of withdrawal-like effects, but these were characterized as mild, transient, and without serious medical complications (Compton et al., 1990); they were considered insignificant

Cannabis Dependence

- Epidemiological studies show that approximately 10% of lifetime cannabis users meet the criteria for cannabis abuse or dependence (Anthony et al., 1994; Cottler et al., 1995; Hall et al., 1999). The rate of problems increases with frequency of use.
- The diagnosis of cannabis dependence using DSM-IV is quite stable, utilizes the full range of dependence criteria, and appears to be unidimensional, i.e. the dependence syndrome applies to cannabis as well as it does to other drugs of dependence
- The criteria for cannabis dependence are internally consistent (Swift et al., 2001).

Cannabis Withdrawal

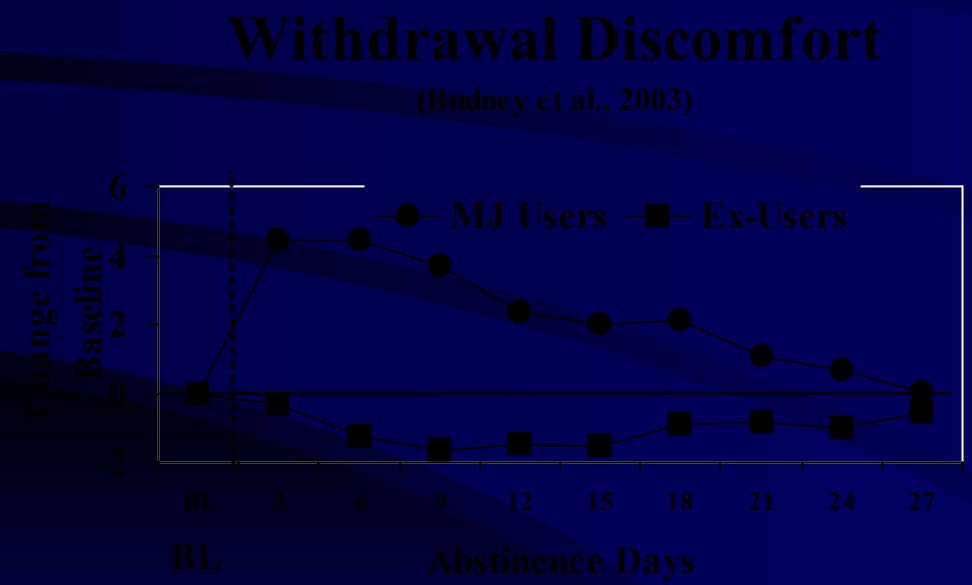
Cannabis withdrawal is not recognized as a disorder in DSM-IV.

Does it exist?

Cannabis Withdrawal

- Laboratory studies (of in-patients and out-patients) demonstrate withdrawal effects when cannabis or oral THC is discontinued (Haney et al., 1999)
- The magnitude and time course of cannabis withdrawal effects are typical of a substance withdrawal syndrome (Koori & Pope, 2000; Budney et al., 2003)
- Onset is within 24-48 hours post cessation of use, peak effects are seen from day 2 to day 4, and features resolve in 1-3 weeks (Budney et al., 2003)

The Time Course of Cannabis Withdrawal



ADTRU

Cannabis Withdrawal

- How common is it?
- How severe is it?
- Is it clinically significant?

Cannabis Withdrawal

- One-quarter of persons who had smoked cannabis at least 6 times in their life reported experiencing cannabis withdrawal (Cottler et al., 1995).
- Using ICD-10 cannabis withdrawal criteria, 20-32% of long-term cannabis users reported experiencing cannabis withdrawal (Swift et al., 1998; Swift et al., 2000).
- Among clients seeking treatment for cannabis problems, 50-95% reported cannabis withdrawal during the past year (Budney et al., 2000; Copeland et al., 2001; Stephens et al., 2002)

Features of Cannabis Withdrawal

- Cannabis withdrawal is characterised by craving, irritability, nervousness, depressed mood, restlessness, sleep difficulty, and anger

- 85% of outpatients reported at least four symptoms of withdrawal (Budney et al., 1999), with 70% endorsing the presence of the above features

Rationale for accepting cannabis withdrawal as a legitimate diagnosis

Cannabis withdrawal (a) occurs reliably after cessation of use, (b) is relatively common (c) has a specific time course that includes a return to baseline state, (d) abates with readministration of cannabis, (e) is due to deprivation of a specific substance; and (f) is clinically significant.

Adapted from Budney (2006)

Cannabis Withdrawal

Proposed Withdrawal Symptom List for DSM-V

Common Symptoms

- Anger or aggression
- Decreased appetite or weight loss
- Irritability
- Nervousness or anxiety
- Restlessness
- Sleep difficulties including strange dreams

Less Common Symptoms

- Chills
- Depressed mood
- Stomach pain
- Sweating

Adapted from Budney, 2006

- Nausea and vomiting

Cannabis and Mental Health: possible relationships

- Co-occurrence through chance alone (the prevalence of cannabis abuse or dependence x the prevalence of the mental health disorder)
- Cannabis use and mental health disorders are a consequence of the same predisposing factors (e.g., childhood environment, genetic influences, stress)
- Cannabis use influences the development of a mental health disorder but the latter runs an independent course (e.g. cannabis could unmask a latent predisposition toward psychosis)
- Cannabis abuse or dependence develops through self-medication of the symptoms of a mental health disorder

  Cannabis induces a mental health syndrome (e.g., stimulant-induced psychosis

Adapted from Schuckit, 2006

ADTRU

Cannabis-induced Psychosis

- Cannabis intoxication produces feelings of derealisation, depersonalization, and paranoia (Thomas 1996), which may last 24-48 hours.
- Clinical series show the occurrence of paranoia, other delusions (without insight) and auditory and visual hallucinations developing in a clear sensorium (Solomons et al. 1990; Chaudry et al. 1991; Wylie et al. 1995).
- These psychotic syndromes (including Schneiderian first rank symptoms) abate and disappear with cessation of use, with a time course of several days to a month (Basu et al. 1999).

Cannabis-induced Psychosis

Predisposition to schizophrenia

- A 15-year follow-up of ~50,000 Swedish military conscripts showed a 2.4-to-6 fold increased risk for later hospitalization for schizophrenic-like disorders in individuals who used marijuana at baseline (Andreasen et al. 1987; Zammit et al. 2002). However, the heaviest users did not develop schizophrenia.

- A 3-year follow-up of about 4,000 persons in the Netherlands reported a 2.8 fold increased risk for subsequent schizophrenia in cannabinoid users (van Os et al. 2002)

- A New Zealand study showed a 2-3-fold increase in the diagnosis of schizophrenia (Arseneault et al. 2002)

Cannabis-induced Psychosis

Predisposition to schizophrenia

- But, increased marijuana use across cohorts is not associated with a greater lifetime risk for schizophrenia across such cohorts or in countries with higher, as compared to lower, marijuana use rates (Degenhardt et al. 2003).

- The increased use of cannabis in Western societies has not been followed by an increase in the incidence of schizophrenia

Cannabis-induced Psychosis

Predisposition to schizophrenia

1. Does cannabis cause schizophrenia?
   Cannabis is the cause of 9-15% of cases of schizophrenia (Murray, 2005)

2. Or does it precipitate the illness in predisposed persons
   More likely

Cannabis and Depression

- Depressive symptoms occur in cannabis withdrawal (Schuckit 2000).
- Cannabis-induced mood syndromes are described (Schuckit 2000); they are usually temporary, lasting for up to three months after cessation of use.
- Cohort studies indicate a 2-3-fold increase in the diagnosis of depression by the mid-late 20s

Cannabis and Anxiety

- Anxiety and panic can occur during cannabis intoxication when they smoke cannabis.
- Cannabis-induced anxiety disorders are described (Schuckit 2000)
- Cohort studies indicate a 2-3-fold increase in the diagnosis of generalized anxiety by the mid-late 20s