

PARALLEL SESSION 1A
Drugs, costs and consequences

Cannabis – the forgotten clubbers' drug

Adam Winstock
Sydney South West Area Health Services, Australia

While most papers about club drug use focus on stimulants and alcohol, most forget that the commonly used illicit drug among this group is cannabis. Among clubbers there are many who use to mitigate the comedown from other drugs but equally many who have become chronic heavy and often dependent users. With the associated health risks and potential for exacerbating mental health problems such use needs to be addressed by both health promotion agencies and treatment agencies. This paper reviews the functions and problems of cannabis use among clubbers and reviews the present treatment options for dependent users including the management of withdrawal.

Although international classification systems are yet to be convinced of the existence of cannabis withdrawal, an increasing number of clinicians, researchers and users are becoming aware of the fact that some people who use cannabis chronically experience a variety of unpleasant and aversive symptoms when they try to cut down or stop their use. This paper reviews the clinical syndrome and aetiology of cannabis withdrawal and considers practical and theoretical treatment options. The concurrent use of tobacco among many users will be considered. Extrapolating from treatments provided for other withdrawal syndromes and other approaches that have shown promise in the treatment of other inhaled substances, this paper will give an overview of the research to date in this area.

'Cannabis'

The forgotten clubbers drug.

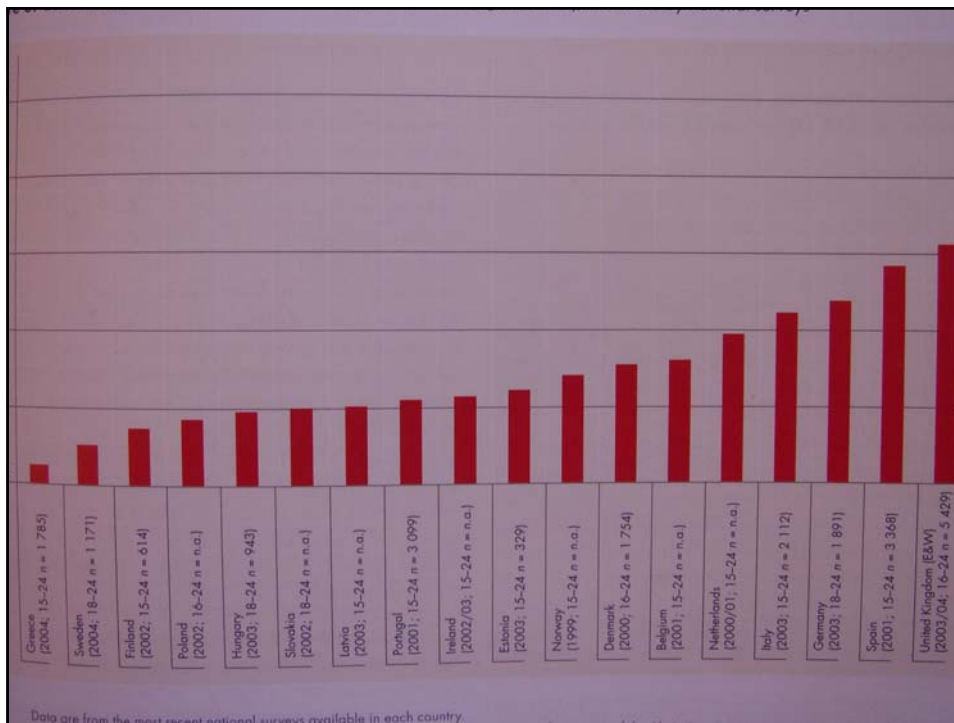
Club Health 2006

Slovenia

Dr Adam R Winstock
Senior Staff Specialist
Drug Health Services
SSWSAHS
Conjoint Senior Lecturer
NDARC, UNSW

Figure 4: Trends in recent use (last year) of cannabis among young adults (aged 15–34), measured by national surveys (%)



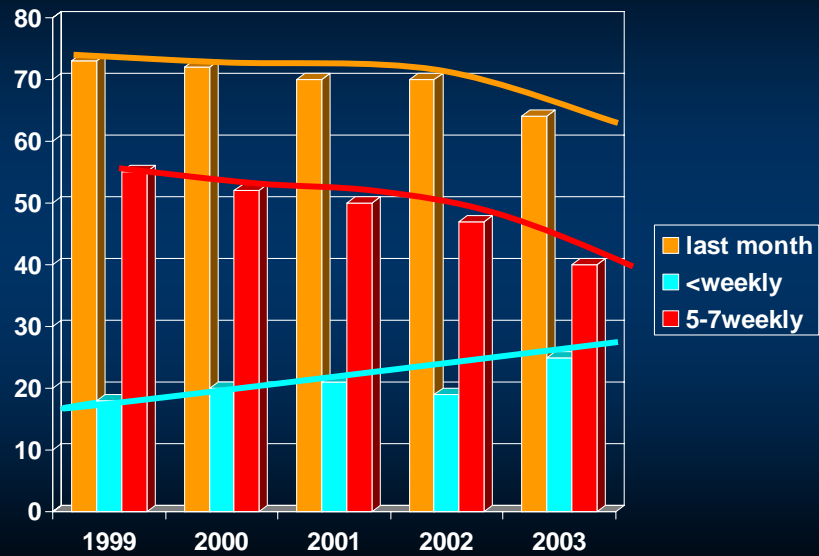


Cannabis in club land

- 40-80% of clubbers are current smokers
- May be more common than cigarettes
- Often the first drug clubbers have tried-may be used long after clubbing has stopped
- Unlike other club drugs-more often used outside/club.
- Comedown, sedation, appetite enhancer...
- Some evidence from UK that its popularity among clubbers falling

Serial cannabis use data 'Mixmag'

(McCambridge, Hunt, Winstock and Mitcheson 2005)



Cannabis-wot is it

- Cannabis Sativa and Indica (hybrid=skunk)
- Active ingredient THC (also terpins, cannabinoid)
- Potency varies between preparations and forms (leaves, heads, resin)
- Resin-4-10%.
- Normal bush weed- 3-8%.
- Skunk/hydro 8-20% (mean UK 12-16%).
- Oil 30-60%.

Issues of potency

- Much hype about super strong marijuana.
- The truth is.....a bit stronger not a lot (some evidence say double).
- Impact on smoking behaviour unknown.
- Impact on population health level unknown (see alcohol)
- Statistically significant relationship between potency and peak plasma level....but other variables
- Some evidence to support increase presentation for treatment...? Relationship to potency
- Impact of other factors such as pattern of use, duration and method used.....

Just like alcohol...cost/active ingredient %

“Hydro or skunk”

- Intensive indoor methods-developed by the tulip growers in Holland.
- 6 crops/year
- Grown from selective seeds-high THC 8-20+%
- Up to 80% of Oz market (50% of UK)
- Domestic sensemilla (without seeds)
- Artificial control of daylight, fertilizer, propagation of female cuttings..
- On average twice as high as outdoor-overlaps between two groups.
- Increase THC = genetics and environment

Potency and adverse acute and chronic outcomes in mental health

- Higher THC strains may lead to greater risk of acute adverse psychological experiences.
- Higher dose strains may lead to higher levels after use –may be an issue for driving/studying/work related accidents.
- Re developing schizophrenia-timing of exposure and duration of exposure probably more important .
- Age of first use probably most important risk factor and your genes.
- Stopping people smoking cannabis will not solve the crisis in mental health nor bring sanity to our young people.

Cannabis - routes of use

Orally - THC is fat soluble and once dissolved in fat can be effectively absorbed in food

Smoked

multiple ways – often mixed with tobacco

Vaporised/inhaled

Safer smoking

- Vaporizer removes carcinogens, expensive and culturally unfamiliar, different taste.
- No tobacco –best
- Joints-loss of side stream smoke 50%
- Both water pipes and smoking lose 30% in pyrloysis.
- Not hold smoke in lungs
- Joints with tobacco = 3 cigarettes.

Treatment for what ?

- Smoking lots of pot for along time is not without problems for many users at some point in their lives.
- Withdrawal.
- Cognitive impairment ???.
- Emotional/personal/professional.
- Mood disorders / exacerbation /

Patterns of use, problems, harm reduction

- Problem = amount, frequency, duration, pattern of use and vulnerability
- Cannot change constitutional vulnerability, but can raise awareness in individual
- Age of onset important
- Pattern of use a key modifiable factor at an individual level
- Not just the drug, also behaviours while using
- **10-20% cannabis smokers are dependent**

Winstock 2006

Cannabis dependence

- People do get tolerant to cannabis.
- Need more to get stoned.
- Cross tolerance with alcohol.
- 10% users become dependent.
- Difficult to control use/get problems- family, work, health, mood.
- When they stop some get withdrawal.

“None of the 9 patients died which surprised me”*

Why withdrawal is important.

- 1949 first description far east Indian sailors c/o irritable after 2 days a sea in some violence, psychosis 3-6 weeks.
- Withdrawal discomfort may be a barrier to abstinence.
- No recognised treatment.
- No lolly to attract users
- Not in DSM IV TR-'clinical significance yet to be determined'.....

* Fraser 1949 Lancet

Withdrawal symptoms 1-

• Irritability, restlessness

• Insomnia

• Appetite disturbance (↓) Wt

• Craving

• Sweating, chills, stuffy nose

• Depression

• Aggression, violence*

• Muscular aches/pains

• Fatigue, yawning

• Nausea/ GI symptoms

• Tremor, shakiness.

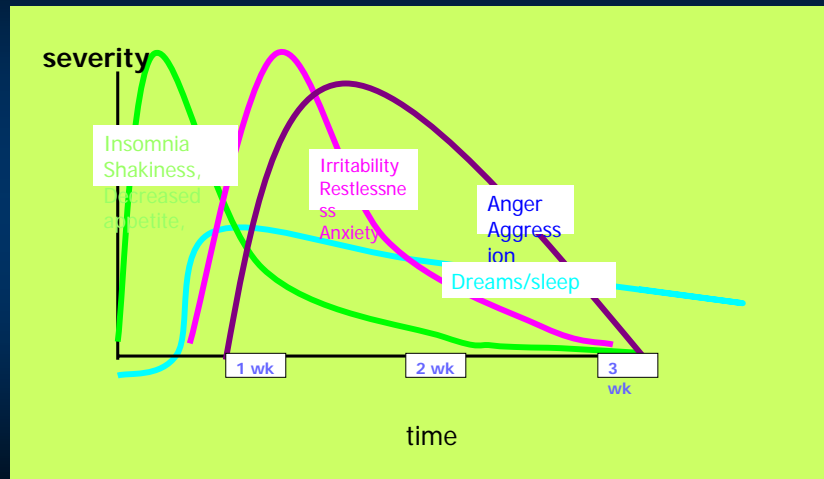
• Exacerbation of underlying psych illness

54 rx seekers
(Budney et al 1999*)
Mean 9 symptoms

• 57% 6 or more
symptoms of at
least mod severity

• 47% 4 or more
severe.

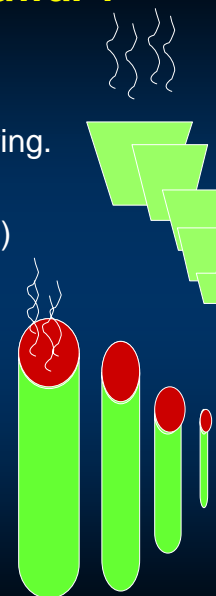
Cannabis withdrawal clinical profile



Pharmacotherapies for withdrawal 1

- Tapered reduction of agonist
 Prescribed-oral delta 9 THC 10mg 5 x day.
 Reduced anxiety, insomnia, misery and craving.
 Reversed weight loss and anorexia
 Dose had no psychoactive effects (=placebo)
 Suggested to users
 Cookie cut down
 Delay to 1st use, 'diet cones' 'sleep hygiene'
- symptomatic relief-psychiatric medications
- bupropion / nefazadone / valproate
- clonidine (Cone et al)
- **SSRI risk** / antihistamines
- benzodiazepines

NRT-treat tobacco



*D. (1994), (1995), (1996), (1997), (1998), (1999), (2000), (2001), (2002), (2003), (2004), (2005), (2006), (2007), (2008), (2009), (2010), (2011), (2012), (2013), (2014), (2015), (2016), (2017), (2018), (2019), (2020), (2021), (2022), (2023), (2024), (2025)

Cannabis and nicotine 1 “ a functional interaction”

- Why? economy, functionality, culture
- Nicotine may enhance rewarding effects of THC (as with heroin and cocaine**).
- * Animal models suggest synergistic effects and enhanced THC withdrawal in mice concurrently receiving nicotine.

* Valjent et al B J Pharm 2002, ** Zernig et al Eur J Pharm 1997

Lessons from another leaf- tobacco.

- Tobacco use among cannabis users 40%-50% (2X GEN POP)
- Cannabis appears to increase tobacco smoking behaviour.
- Cannabis use associated with poorer outcomes for tobacco smoking interventions.
- Tobacco use associated with poorer substance abusing treatment outcomes*

* Stuyt 1997 Am J Addict

A symptom and client focused approach

Typical outpatient regimens might be:

7 days of diazepam 5 mg two-four times daily
+/-/or,

zopiclone 7.5 mg at night,
NSAIDs/buscopan/Mg/paracetamol/ as needed,

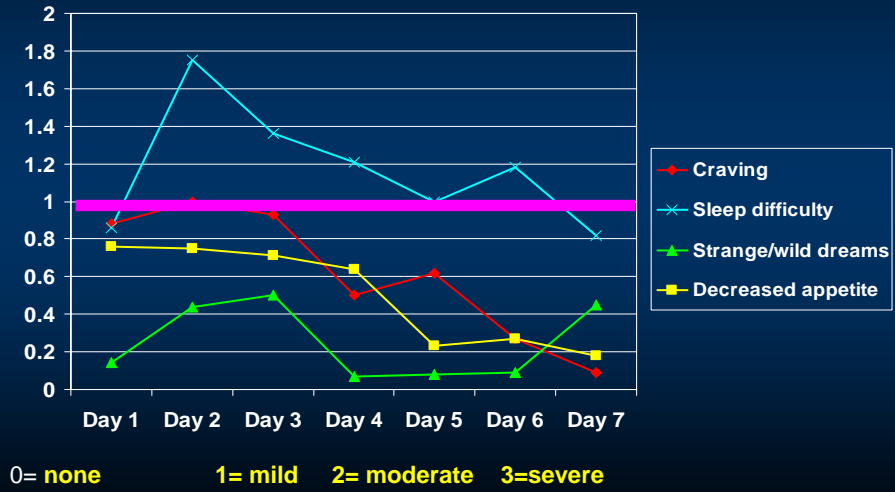
Nausea/loss of appetite	Sedating anti histamine
Sweats/chills	Paracetamol
Muscle cramps / pain	Mg, baclofen

Sleep hygiene **NRT if needed**

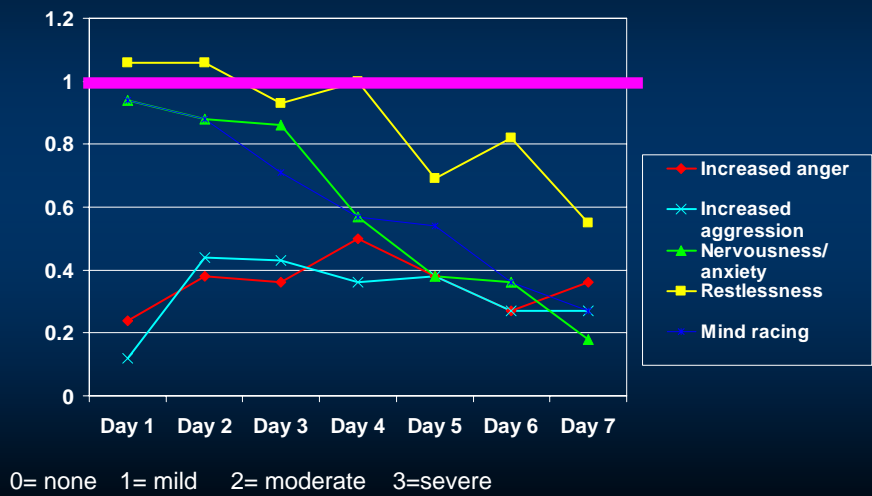
Lithium ???

- LITHIUM
- ????? Eh?
- Pre-clinical evidence in rats.....
- Mood stabilising role of oxytocin
- Current in patient pilot of lithium in managing cannabis withdrawal just completed in Australia

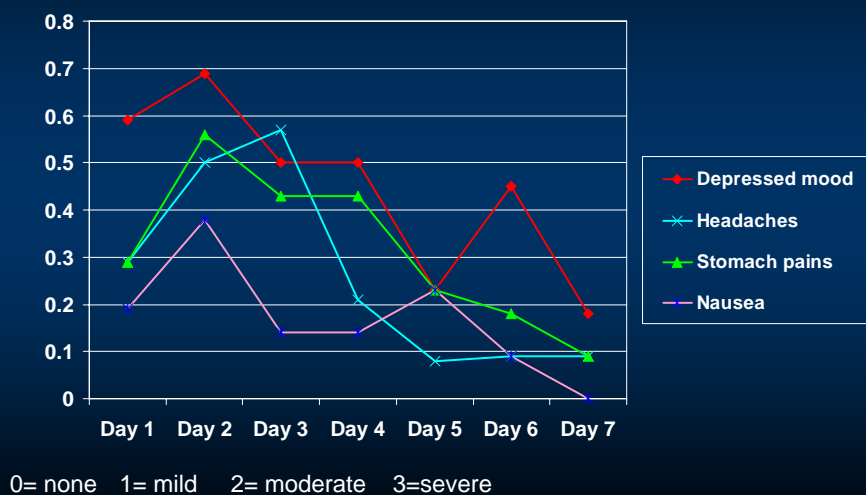
Cannabis withdrawal scores (mean)



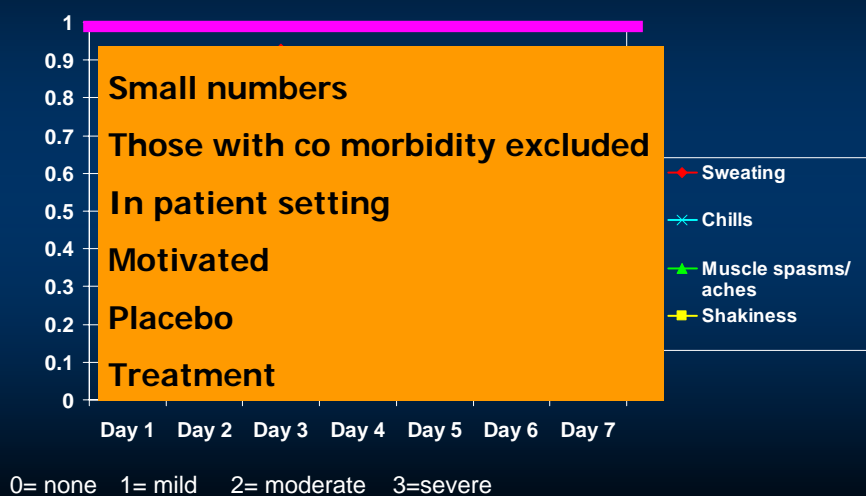
Cannabis withdrawal scores (mean)



Cannabis withdrawal scores (mean)



Cannabis withdrawal scores (mean)



Aversion therapy-vomit, nausea, puff puff, ow!

1983 Nigeria **IM emetine-photo** of self smoking cannabis, sipping saline solution. Mean abstinence 9months.*

Rapid smoking (Lichenstein 1973) effective in tobacco smoking cessation rates of 50-80%

5 days **Faradic aversion and rapid smoking** 'THC free cannabis' study and support groups, CM.*** 22 users, aversion therapy)

90% abstinent end of treatment, 85% at 12 months (self-report)

* * Lando et al 1977, Hall et al 1979 *Moraakinyo D&A Depend 1983
*** Smith et al J Sub Ab Treat 1988

Cannabis, mental health and adolescent use

- Early use of cannabis associated with poorer adult outcomes.
- Effect may be a direct problem or a marker of other problems.
- Cannabis using adolescents show higher rates of crime, truancy, poor school attainment, use of other drugs.
- Use often associated with first presentation
- Co-morbid problems/risks

Hope it was food for thought.

Thankyou

Adam

adam.winstock@swsahs.nsw.gov.au