

ncpic e-zine

january 2009

national cannabis prevention and information centre

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what's new in cannabis?

Our Cannabis and Driving campaign is now underway with the launch of our Avant Card occurring this month. We have also developed a Cannabis and Driving page on our website which currently contains a factsheet, a young person's story, the campaign's three key messages and will soon link to a new research brief on the subject. A feature poster for the campaign will be developed and disseminated across Australia later this year. We hope that through these activities the public's awareness of the risks of driving while under the influence of cannabis will increase.

director's report

Jan Copeland (PhD)
(Professor/Director, NCPIC)

Welcome to a new year with NCPIC. It is a year of consolidation and future planning for the Centre as we reflect on our strategies and activities of the past 18 months and look to build on those successes and strike out in new areas. Our two focus areas this year are assisting indigenous communities and the workplace. The former issue was discussed in the November E-Zine with regard to our work with Associate Professor Alan Clough and colleagues in Far North Queensland. We are working with a number of indigenous communities and organisations nationally throughout 2009 to develop a range of community and workforce resources. Paul Dillon and Clare Chenoweth are leading this work and will report on it throughout the coming year as resources come on-line.

Our consortium partner NCETA will be working with us to develop resources and training materials for workplaces and their associated workforces. The widespread adoption of cannabis testing in the workplace means that employers and employees are engaged in the topic and keen to adopt information materials and brief interventions. This appears to be a particular issue among indigenous communities where failing a drug test, because of cannabis use, can prevent access to vital employment and training initiatives.

An exciting event for 2009 is our planned inaugural National Cannabis Conference for 7th and 8th September at the Powerhouse Museum in Sydney. It will feature a number of fabulous national and international speakers on a wide range of topics. These

include Professor David Fergusson, Director of the Christchurch Health and Development Study who has published groundbreaking research on the effects of cannabis on adolescent development. He is joined by Professor Alan Green from Dartmouth Medical School. He is a former director of a Harvard Medical School Department of Psychiatry clinical research centre for the study of patients with severe mental illness and an expert on pharmacological interventions for cannabis and comorbid disorders.

We are also pleased to announce that Professor Peter McKenna will be speaking on cannabis and schizophrenia. He has worked as a psychiatrist in both clinical and academic settings since 1978, and has held research and clinical appointments at Oxford and Glasgow Universities and is now in Barcelona. He has authored a fascinating book on the symptoms of schizophrenia and having enjoyed his paper at a recent conference I know he will provide a unique perspective to the conference. Our final international speaker is Dr Lisa Marsch, the Director of the Center for Technology and Health at that other NDRI in New York. She is also a Research Scientist in the Department of Psychiatry at St. Luke's-Roosevelt Hospital Center. She has conducted numerous research studies focused on examining how technology can be used to enhance the reach of science-based prevention and treatment interventions and will be speaking about her experiences with web-based interventions for substance use related problems.

While we are always thrilled to have international visitors to challenge us with new ideas we are equally pleased to welcome cutting edge Australian

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research publications

Relevant publications examining issues to do with cannabis that have been published in the last month include the following:

- Agrawal, A. & Lynskey, M.T.** (2009). Tobacco and cannabis co-occurrence: Does route of administration matter? *Drug and Alcohol Dependence* 99, 240-247.
- Akbas, F., Gasteyger, C., Sjödin, A., Astrup, A., & Larsen, T.M.** (2009). A critical review of the cannabinoid receptor as a drug target for obesity management. *Obesity Reviews: An Official Journal of the International Association for the Study of Obesity* 10, 58-67.
- Annaheim, B., Rehm, J. & Gmel, G.** (2008). How to screen for problematic cannabis use in population surveys. An evaluation of the Cannabis Use Disorders Identification Test (CUDIT) in a Swiss sample of adolescents and young adults. *European Addiction Research* 14, 190-197.
- Ashtari, M., Cervellione, K., Cottone, J., Ardekani, B.A., & Kumra, S.** (2009). Diffusion abnormalities in adolescents and young adults with a history of heavy cannabis use. *Journal of Psychiatric Research* 43, 189-204.
- Behrendt, S., Wittchen, H.U., Höfler, M., Lieb, R., & Beesdo, K.** (2009). Transitions from first substance use to substance use disorders in adolescence: Is early onset associated with a rapid escalation? *Drug and Alcohol Dependence* 99, 68-78.
- Bonn-Miller, M.O., Vujanovic, A.A. & Zvolensky, M.J.** (2008). Emotional dysregulation: Association with coping-oriented marijuana use motives among current marijuana users. *Substance Use and Misuse* 43, 1653-1665.
- Buckner, J.D. & Schmidt, N.B.** (2008). Marijuana effect expectancies: Relations to social anxiety and marijuana use problems. *Addictive Behaviours* 33, 1477-1483.
- Chen, A.L., Chen, T.J., Braverman, E.R., Acuri, V., Kemer, M., Varshavskiy, M., Braverman, D., Downs, W.B., Blum, S.H., Cassel, K., & Blum, K.** (2008). Hypothesizing that marijuana smokers are at a significantly lower risk of carcinogenicity relative to tobacco-non-marijuana smokers: Evidenced based on statistical reevaluation of current literature. *Journal of Psychoactive Drugs* 40, 263-272.
- Degenhardt, L., Chiu, W.T., Conway, K., Dierker, L., Glantz, M., Kalaydjian, A., Merikangas, K., Sampson, N., Swendsen, J., & Kessler, R.C.** (2009). Does the 'gateway' matter? Associations between the order of drug use initiation and the development of drug dependence in the National Comorbidity Study Replication. *Psychological Medicine* 39, 157-167.
- Esson, L.** (2009). Review: Short-term medical use of cannabis increases risk of non-serious adverse effects. *Evidence-Based Nursing* 12, 16.
- Fusar-Poli, P., Crippa, J.A., Bhattacharyya, S., Borgwardt, S.J., Allen, P., Martin-Santos, R., Seal, M., Surguladze, S.A., O'Carroll, C., Atakan, Z., Zuardi, A.W., & McGuire, P.K.** (2009). Distinct effects of Δ^9 -tetrahydrocannabinol and cannabidiol on neural activation during emotional processing. *Archives of General Psychiatry* 66, 95-105.
- Haney, M.** (2009). Self-administration of cocaine, cannabis and heroin in the human laboratory: Benefits and pitfalls. *Addiction Biology* 14, 9-21.
- Hathaway, A.D.** (2008). Reprioritizing dependence and abuse: A comparison of cannabis clients in treatment with a nontreatment sample of users. *Addiction Research and Theory* 16, 495-502.
- Hermann, D., Leménager, T., Gelbke, J., Welzel, H., Skopp, G., & Mann, K.** (2009). Decision making of heavy cannabis users on the Iowa Gambling Task: Stronger association with THC of hair analysis than with personality traits of the Tridimensional Personality Questionnaire. *European Addiction Research* 15, 94-98.
- Hughes, L.** (2008). Is cannabis bad for your health? *Advances in Dual Diagnosis: Policy, Practice and Research in Mental Health and Substance Use* 1, 37-40.
- Martens, K.M. & Gilbert, D.G.** (2008). Marijuana and tobacco exposure predict affect-regulation expectancies in dual users. *Addictive Behaviours* 33, 1484-1490.
- Mendoza, M.A., Mills, D.K., Lata, H., Chandra, S., ElSohly, M.A., & Almirall, J.R.** (2009). Genetic individualization of cannabis sativa by a short tandem repeat multiplex system. *Analytical and Bioanalytical Chemistry* 393, 719-726.
- Messinis, L. & Papathanasopoulos, P.** (2009). Multiple sclerosis and cannabis: A cognitive and psychiatric study. *Neurology* 72, 100-101.
- Okoli, C.T., Richardson, C.G., Ratner, P.A., & Johnson, J.L.** (2008). Adolescents' self-defined tobacco use status, marijuana use, and tobacco dependence. *Addictive Behaviours* 33, 1491-1499.
- Pakula, B., Macdonald, S. & Stockwell, T.** (2009). Settings and functions related to simultaneous use of alcohol with marijuana or cocaine among clients in treatment for substance abuse. *Substance Use & Misuse* 44, 212-226.
- Reinarman, C.** (2009). Cannabis policies and user practices: Market separation, price, potency, and accessibility in Amsterdam and San Francisco. *International Journal on Drug Policy* 20, 28-37.
- Schweinsburg, A.D.** (2008). The influence of marijuana use on neurocognitive functioning in adolescents. *Current Drug Abuse Reviews* 1, 99-111.
- Simpson, M., Lawrinson, P., Copeland, J., & Gates, P.** (2009). The Alcohol Treatment Outcome Measure (ATOM): A new clinical tool for standardising outcome measurement for alcohol treatment. *Addictive Behaviours* 34, 121-124.
- Subramaniam, G.A., Stitzer, M.L., Woody, G., Fishman, M.J., & Kolodner, K.** (2009). Clinical characteristics of treatment-seeking adolescents with opioid versus cannabis/alcohol use disorders. *Drug and Alcohol Dependence* 99, 141-149.
- Tang, Z. & Orwin, R.G.** (2009). Marijuana initiation among American youth and its risks as dynamic processes: Prospective findings from a national longitudinal study. *Substance Use and Misuse* 44, 195-211.
- Tarter, R.E., Kirisci, L., Gavaler, J.S., Reynolds, M., Kirillova, G., Clark, D.B., Wu, J., Moss, H.B., & Vanyukov, M.** (2009). Prospective study of the association between abandoned dwellings and testosterone level on the development of behaviors leading to cannabis use disorder in boys. *Biological Psychiatry* 65, 116-121.

commentary on research reasons for cannabis use among patients with schizophrenia – a comment on Schaub, Fanghaenel & Stohler (2008)

Dr John Howard

This study by Schaub, Fanghaenel & Stohler¹ builds on a reasonably large literature linked to Khantzian's² seminal work on the 'self-medication' hypothesis which suggested that much substance use by those with mental disorders had a role in 'medicating' distressing symptoms of their disorders.

Khantzian stated in 1985, 'Although most such efforts at self-treatment are eventually doomed, given the hazards and complications of long-term, unstable drug use patterns, addicts discover that the short-term effects of their drugs of choice help them to cope with distressful subjective states and an external reality otherwise experienced as unmanageable or overwhelming' (p.1263).

Later Canadian,³ US⁴ and Australian^{5, 6} studies and comprehensive reviews^{7, 8} have found the main reasons for substance use among those with psychotic disorders, were to increase happy and relaxed feelings, cope better with boredom, isolation, anxiety, agitation and other negative affects, improve sleep, and increase capacity to interact socially; not so much the desire to only moderate the positive symptoms. Cannabis, and alcohol, were the substances most often used by participants in these studies. This can be a double-edged sword as some relief might be gained for some symptoms at the expense of increasing others. Thus, some 'tailor' their substance use to achieve maximal impact on undesired affective symptoms, with a minimal increase in any positive symptoms.

Where Schaub et al. add to the previous research findings is that they found that the patients with schizophrenia differed only marginally from the controls on all reasons for cannabis use, other than to 'reduce boredom'. They highlight the 'unsatisfactory situation' with regard to underemployment, relationship difficulties and leisure time that tends

to characterise persons with chronic mental health disorders such as schizophrenia. They also identified, as have others, that there may be a small sub-group of persons with schizophrenia who use cannabis to reduce positive symptoms such as hallucinations.

A potential flaw in a number of the studies to date, including that of Schaub et al., is that 'reasons for use' were often pre-set via use of particular scales, and in most cases, reasons for initial use versus those for continued use were either not collected, analysed or reported; an issue noted by Gregg et al.⁹ Likewise, while diagnoses may be made according to accepted classification systems, actual symptoms may differ markedly and in intensity. Thus, the positive symptoms causing distress may differ among participants in a study. The impact of social interaction distress, however, may be a more common experience.

Also it is important to consider that impacts of cannabis use may be 'dose related' and, as Cohen, Solowij and Carr⁷ suggest, 'low doses may actually improve frontal lobe functioning by acutely increasing blood flow to cortices concerned with cognition, mood and perception, and by increasing the availability and utilization of dopamine.... [but] ...continued use depresses cerebral flow to these areas and high doses functionally denervate the mesocortical pathway' (p. 364). Cannabis use may also decrease the effectiveness of antipsychotic medications.

As Schaub et al. imply, what is crucial in the treatment of cannabis users with schizophrenia and other psychotic disorders, is to: understand their subjective reasons for initiating and continuing to use cannabis; alert them to potential negative consequences of continued cannabis use; and, like all competent clinicians, consider potential impacts on the lives of their clients of social isolation, marginalisation and loneliness, and tailor any interventions accordingly.

1. **Schaub, M., Fanghaenel, K. & Stohler, R.** (2008). Reasons for cannabis use: Patients with schizophrenia versus matched health controls. *Australia and New Zealand Journal of Psychiatry* 42, 1060-1065.

2. **Khantzian, E.** (1985). The self-medication hypothesis of addictive disorders: Focus on heroin and cocaine dependence. *American Journal of Psychiatry* 142, 1259-1264.
3. **Addington, J. & Duchak, V.** (1997). Reasons for substance use in schizophrenia. *Acta Psychiatrica Scandinavica* 96, 329-333.
4. **Warner, R., Taylor, D., Wright, J., Sloat, A., Springett, G., Arnold, S., & Weinberg, H.** (1994). Substance use among the mentally ill: Prevalence, reasons for use, and effects on illness. *American Journal of Orthopsychiatry* 64, 30-38.
5. **Green, B., Kavanagh, D. & Young, R.** (2004). Reasons for cannabis use in men with and without psychosis. *Drug and Alcohol Review* 23, 445-453.
6. **Schofield, D., Tennant, C., Nash, L., Degenhardt, L., Cornish, A., Hobbs, C., & Brennan, G.** (2006). Reasons for cannabis use in psychosis. *Australia and New Zealand Journal of Psychiatry* 40, 570-574.
7. **Cohen, M., Solowij, N. & Carr, V.** (2008). Cannabis, cannabinoids and schizophrenia: Integration of the evidence. *Australia and New Zealand Journal of Psychiatry* 42, 357-368.
8. **McLaren, J., Lemon, J., Robins, L., & Mattick, R.** (2008). *Cannabis and mental health: Put into context*. National Drug Strategy Monograph Series No. 68. Canberra: Commonwealth Department of Health and Ageing.
9. **Gregg, L., Barrowclough, C. & Haddock, G.** (2007). Reasons for increased substance use in psychosis. *Clinical Psychology Review* 27, 494-510.



Each issue we will examine some of the cannabis-related stories that have received media attention across the country. The headlines are listed below in bold, with a short summary and/or commentary regarding the content of the news story beneath.

If you are interested in obtaining a copy of a particular story, please contact Clare Chenoweth at c.chenoweth@unsw.edu.au.

binge drinkers try to rein in the habit

Ballarat Courier: December 18, 2008

Cannabis use amongst Australians has “dropped from 11.3 per cent in 2004 to 9.1 per cent in 2007” but remains the “most common illicit drug recently used”, in data released by the Australian Institute of Health and Welfare. The article also describes other trends in drug use, including alcohol, tobacco and heroin.

cannabis counsel for kids

Sunday Times: December 21, 2008

This article covers the forthcoming changes to cannabis laws in Western Australia, which the newly elected state government are developing, in an attempt to “toughen up legislation”. Changes include “mandatory one-on-one counselling for juveniles caught with cannabis”. It is stated that “Currently, children aged 10-17 caught growing, in possession, or using cannabis are only cautioned and occasionally referred to the Juvenile Justice Team”.

which way to turn on cannabis law

New Scientist: January 3, 2009

A report by Britain’s the Beckley Foundation, on how to minimise the harm of cannabis on society, has recommended governments “change the law to allow the state to prepare and distribute the drug for recreational

use”. Restricting underage cannabis use, controlling potency to negate psychological problems and putting drug dealers “out of business” are seen as advantages of this system. Despite acknowledging the health-related harms of cannabis use, it believes that “the damage done by prohibition is worse than from the substance itself”, such as being arrested and having a criminal record. It cites a study by Simon Lenton, of the National Drug Research Institute in Perth, where he compared the impact of different cannabis laws in Western Australia (WA) and South Australia (SA), which criminalise and decriminalise cannabis possession, respectively. Those “criminalised” (WA), were more likely to “be involved in crime again, and to suffer housing and relationship problems”. The Beckley report will be tabled in March at the UN Commission on Narcotic Drugs, which will then “report to a meeting of the UN general assembly later this year that will set international policy on drug control for the decade to come”.

When asked to comment on this article, Professor Copeland said that it is a summary of a 220 page scholarly report which recognises the range of health and social harms associated with cannabis use and dependence. The principle of ensuring measures that aim to reduce harm should be proportional to the harms they aim to prevent is a sound one. In keeping with this principle, there is not a sufficient evidence-base of the effects of transgressing current international control regimes and making cannabis available through a system of state licensing and retailing to recommend it. The proposed caveats of no advertising, low potency, high prices, and supply only to adults would ensure that such a highly available product would continue to flourish in a black market with all the attendant harms described in the full report.

ecstasy rates as no. 2 illegal drug

Courier Mail: January 8, 2009

An increase in ecstasy use in southeast Queensland has made it the “second most popular illicit drug” behind cannabis. Professor Jake Najman of the University of Queensland’s Alcohol and Drug Research and Education Centre, said ecstasy was the sole illegal drug whose use had increased during the last five years.

under-5s caught with cannabis

Sunday Times: January 18, 2009

Despite some weaknesses in data collected by West Australian police around drug-related offences by children, including “lost information including some offenders’ ages”, nearly “4500 child drug offenders have been caught in WA in the past two years”. This includes some children under five years of age being “picked up with amphetamines and cannabis”. The largest number of seizures, by a long way, was “cannabis found on children aged 14-17: 1269g in 2007 and 1443g last year. A further 113g was found on children aged 10-13 in 2007, and 77g last year”. It isn’t clear “whether children were running drugs for others, dealing themselves or using”. Professor of health policy at Curtin University, Mike Daube said “We need to do all we can at an early age to prevent the onset of illicit drug use”.

As always the media can be extremely selective in what it reports and the headline for this story is particularly problematic said Paul Dillon from NCPIC. It is highly unlikely that any young person under the age of 5 years of age is actually using cannabis. The circumstances of the offence is not explained and as such, reinforces mythology and contributes to parents believing that more young people are using illicit drugs, when in fact research would suggest that the opposite is true. This type of selective reporting attracts a great deal of attention but does little to provide the general community with the ‘whole story’ and can end up causing a great deal of damage.

education turns young away from illegal drugs

West Australian: January 20, 2009

Results from a survey of 655 West Australians between the ages of 18-30, show that “one in four...believes the threat of arrest deters people from taking illegal drugs”. Further, the results suggest “the anti-drug message appears to be getting through, with most...showing a surprisingly strict attitude towards illegal drugs”. Despite this, a third of the participants believe it is “acceptable” to smoke cannabis. Professor Steve Allsop, from Curtin University National Drug Research Institute, credited “media attention, national anti-drug campaigns and long-term school drug education” for the overall reduction in illicit drug use including cannabis. The amount of

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media stories this issue

people who reported using cannabis in the last 12 months “dropped by 38 per cent between 2001 and 2007 in WA”.

weird or what?

Cairns Post: January 23, 2009

The “production, sale or possession of a synthetic marijuana-like drug know as Spice” has been made illegal in Germany. Recently, health officials discovered “the drug contained a synthetic ingredient similar to marijuana”. Spice is marketed as a “herbal room-freshener” and has also been banned in Austria, the Netherlands and Switzerland.

it's thumbs down for marijuana

Daily Telegraph: January 24, 2009

A study based on a review of research conducted over recent years, conducted by the Drug Policy Modelling Program at the University of New South Wales, found that many Australians are “taking a tougher view of illegal drug taking than ever and are more conservative than a decade ago”. Fewer people “support legal use of cannabis...and regular use of marijuana is now frowned upon”. It was found that in 1998 “35 per cent of Australians said they wanted cannabis to be made legal but last year only 19 per cent supported legalisation”.

old cannabis ideals going up in smoke

Northern Star: January 30, 2009

This article covers information released by the North Coast Area Health Service that increasing numbers of people are seeking help for cannabis dependence. In 2008, 831 people were treated by the Service, reflecting a 21 per cent jump from 2007 numbers. John Leary, Drug and Alcohol Director of the area health service, said this increase was due to the new ‘cannabis clinics’ that had been introduced to the community. A key benefit of the centres, usually located in community health centres, is that they help remove the “stigma associated with attending a dedicated drug and alcohol centre”. Cognitive behaviour therapy is used in the clinics and counsellors “tailor treatment to each individual”. It is noted that “studies from trial clinics in Sydney and central western NSW have shown that 50 per cent of people either stopped using or reduced their use of cannabis after treatment”.

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director's report

researchers including Associate Professors Alison Ritter, Simon Lenton and Alan Clough in addition to current and former NCPIC/NDARC staff, Drs Nadia Solowij, John Howard, Wendy Swift and Mr Paul Dillon. Our consortium partners' staff will also be speaking, chairing sessions, and acting as commentators. There will be workshops on indigenous issues from NDRI, criminal justice by AIC, treating adolescents in a residential setting by TNF, and alternative intervention delivery models from NCPIC, among others.

We aim to keep the registration fee at an accessible level. The venue size means we are limited to around 300 participants so we suggest you keep an eye on our website for the announcement that registration is open.

Best wishes for a great 2009,

Jan Copeland

(Professor/Director, NCPIC)

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research publications

Taylor, S. (2008). Medicalizing cannabis - science, medicine and policy, 1950-2004: An overview of a work in progress. *Drugs: Education, Prevention and Policy* 15, 462-474.

Tillement, J.P. (2009). The ignorance of cannabis toxic effects, why have we to fight it? *Annales Pharmaceutiques Françaises* 67, 54-55.

van Ours, J.C. & Williams, J. (2009). Why parents worry: Initiation into cannabis use by youth and their educational attainment. *Journal of Health Economics* 28, 132-142.

van Rossum, I., Boomsma, M., Tenback, D., Reed, C., & van Os, J.; the EMBLEM Advisory Board. (2009). Does cannabis use affect treatment outcome in bipolar disorder?: A longitudinal analysis. *The Journal of Nervous and Mental Disease* 197, 35-40.

Wells, J.E., Degenhardt, L., Bohnert, K.M., Anthony, J.C., & Scott, K.M. (2009). Geographical clustering of cannabis use: Results from the New Zealand Mental Health Survey 2003-2004. *Drug and Alcohol Dependence* 99, 309-316.

Westin, A.A. & Slørdal, L. (2009). Passive inhalation of cannabis smoke: Is it detectable? *Tidsskrift for den Norske Lægeforening* 129, 109-113.

Wichstrøm, T. & Wichstrøm, L. (2009). Does sports participation during adolescence prevent later alcohol, tobacco and cannabis use? *Addiction* 104, 138-149.

Zuurman, L., Ippel, A.E., Moin, E., & van Gerven, J.M. (2009). Biomarkers for the effects of cannabis and THC in healthy volunteers. *British Journal of Clinical Pharmacology* 67, 5-21.

Zvolensky, M.J., Bernstein, A. & Marshall, E.C. (2008). Anxiety vulnerability factors and disorders and tobacco and marijuana use and disorders: Emerging theory and research explicating their relations. *Addictive Behaviours* 33, 1383-1384.



cannabis use and reproduction: what do we know?

Cannabis is the most commonly used illicit drug amongst women of reproductive age or by women who are pregnant. Despite little research into the effects of cannabis use upon the unborn child, it is strongly recommended that pregnant women do not use alcohol or any other drug due to the potential harmful effects on the developing baby. Heavy use of cannabis has been linked to decreased fertility in both men and women. Cannabis use may disrupt women's menstrual cycles and decrease men's sperm quality and testosterone levels. These factors can make it difficult for a woman to become pregnant.

THC (delta-9-tetrahydrocannabinol), the psychoactive ingredient in cannabis, is passed through the placenta to the developing foetus, making any amount of cannabis smoked affect it, putting it at risk of complications occurring. Any form of smoking can disrupt the supply of oxygen and nutrients to the foetus, which can result in premature birth. Women who smoke cannabis at least once a week are more likely to give birth to babies with a lower birth weight, which may place the child at a higher risk of developing breathing problems and possible infections. Smoking cannabis and tobacco together adds

risks associated with tobacco smoking during pregnancy such as miscarriage, still-birth and Sudden Infant Death Syndrome (SIDS).

Some evidence suggests babies exposed to cannabis in utero are more likely to startle, have higher levels of tremors and may not see as well compared to babies not exposed. These symptoms, however, are not evident after the first month. Other evidence suggests babies exposed to cannabis in utero are at greater risk of asthma, chest infections and other breathing problems such as wheezing in their first six months of life.

THC can also pass onto the baby during breastfeeding and be stored in its fatty tissue for several weeks. Using cannabis while breastfeeding may cause the baby to be unsettled and disrupt feeding cycles. As a result, cannabis use should be avoided when breastfeeding.

Pregnant women using cannabis should be encouraged and supported to be open with their doctor about their cannabis use to ensure they receive the highest level of healthcare and be referred if necessary to services providing help in ceasing use.

cannabis and young people: what do we know?

Early, prolonged cannabis use can cause significant problems for young people. Despite declining rates of cannabis use in the past decade, it is still the illicit drug most likely to be used by young people, and the possible impacts on adolescent development remain an important issue.

The 2005 Australian School Students' Alcohol and Drug Survey found that 18% of Australian secondary school students aged between 12-17 years had used cannabis at some stage in their life. The use of cannabis increased with age, with 5% of 12 year olds reporting ever having used cannabis compared

to 32% of 17 year olds. In addition, according to the 2007 National Drug Strategy Household Survey, rates of recent cannabis use between males and females aged 14-19 years have converged over time and are no longer greater among males.

Many developmental and social changes occur in adolescence, which cannabis use can impinge on, however it is unclear whether it causes lasting problems in these areas. Early and continued cannabis use can affect memory, attention and concentration and in current, heavy users, even lower IQ. Movement and balance can be affected whilst intoxicated. These effects do not appear to continue once the person has stopped using cannabis.

Poorer school performance, increased absent days and higher risk of leaving school without any qualifications have been associated with early cannabis use. However these effects may also be caused by learning difficulties, lack of motivation or because cannabis users mix with peers who may be involved in a range of risk-taking behaviours.

Other associated risks include childhood hardships, social disadvantage, behavioural difficulties and problematic peer affiliations. Early cannabis use is also linked to higher levels of risk-taking behaviour such as leaving the family home, immature sexual activity and committing offences such as theft, to pay for their drug use.

Cannabis use has been linked to a range of mental health problems such as psychosis, depression or anxiety. The potential for depression and anxiety is increased because cannabis use from an early age is associated with learning difficulties, poorer educational outcomes and problematic behaviour. Using cannabis from an early age places the person at higher risk of impaired emotional development, becoming more dissatisfied with life and suffering from depression.



NCPIC is a consortium led by the National Drug and Alcohol Research Centre and is an Australian Government Department of Health and Ageing initiative

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