ncpic e-zine
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national cannabis prevention and information centre

contents

what's new in cannabis?

what's new in cannabis?

NCPIC received some fantastic entries to its inaugural Indigenous Music Competition this year. The winning songs can be listened to on our website or downloaded to mp3 players at the following link: http://ncpic.org.au/ncpic/news/competitions/article/2010-indigenous-music-competition-winner-announced. Congratulations to our winner: 16 year-old Coedie McCarthy of Ocean Shores, NSW, for his thought-provoking and heartfelt song, *'Yandi Zombies'*.

communications report

Paul Dillon
National Communications Manager

It is difficult to believe that it is almost 3 years ago to the day since we first asked a number of graphic designers from across Australia to tender for the development of what was to become the NCPIC logo. Since that time the Centre's Communication Team, together with our Consortium partners, designers, contractors and printers, have worked extremely hard to produce a wide range of resources aimed to provide the Australian community with access to evidence-based information on cannabis.

The recent review period gave us the opportunity to reflect and look back at all that we have achieved, but since hearing that we have now been refunded for another four years, we are eagerly looking forward to some of the exciting projects we have planned for the years ahead.

We have always acknowledged the importance of GPs in our workplans and, as such, have already developed a section of the NCPIC website dedicated to general practitioners, as well as producing a series of 10 factsheets that were included on the Medical Director software package available for download. For those of you who are unaware of this resource, Medical Director is Australia's most popular prescription writing, medication and electronic patient management program and this project was a great beginning for NCPIC's relationship with GPs.

In the coming year we wish to expand on the work already completed and one of our key projects will be the development of a GP Education Package. The aim of the package will be to encourage GPs to screen for cannabis use and potential problems associated with that use and begin to consider 'Could it be Cannabis?' that is contributing to their patients health issues. We have yet to conduct the necessary consultation process with key organisations and potential partners, but at this point we anticipate that the package will contain a poster that can be distributed in the GP's waiting room or office, an updated version of the factsheets already developed for Medical Director as well as other information resources that will either provide doctors with referral information for patients with cannabis-related problems or assist and encourage them to provide brief interventions themselves.

The 'Could it be Cannabis?' tagline has been adapted from materials that our consortium partner NDRI has recently developed for Indigenous communities, 'Could it be the Gunja?'. They have originated from a project which aims to raise the issue of cannabis use on the Indigenous health agenda and to develop treatment responses for Indigenous cannabis users within the community controlled health care sector. The overall design of the project was to assess the needs of workers and clients of primary health care in relation to cannabis use, to develop and pilot appropriate treatment responses, resources, training and an implementation process. Following the pilot of the resources, training and implementation process dissemination of successful elements to additional Indigenous primary health care services is planned.

As already said, we are in the early stages of development of the 'Could it be Cannabis?' message and package and we will be sure to keep you posted on developments with this exciting project.

research publications

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

Adamson, S.J., Kay-Lambkin, F.J., Baker, A.L., Lewin, T.J., Thornton, L., Kelly, B.J., & Sellman, J.D. (2010). An improved brief measure of cannabis misuse: The Cannabis Use Disorders Identification Test-Revised (CUDIT-R). *Drug and Alcohol Dependence 110*, 137-143.

Böcker, K.B., Gerritsen, J., Hunault, C.C., Kruidenier, M., Mensinga, T.T., & Kenemans, J.L. (2010). Cannabis with high delta(9)-THC contents affects perception and visual selective attention acutely: An event-related potential study. *Pharmacology, Biochemistry, and Behavior 96*, 67-74.

Broséus, J., Anglada, F. & Esseiva, P. (2010). The differentiation of fibre- and drug type cannabis seedlings by gas chromatography/mass spectrometry and chemometric tools. *Forensic Science International 200*, 87-92.

Cawich, S.O., Downes, R., Martin, A.C., Evans, N.R., Mitchell, D.I., & Williams, E. (2010). Colonic perforation: A lethal consequence of cannabis body packing. *Journal of Forensic and Legal Medicine 17*, 269-271.

de Graaf, R., Radovanovic, M., van Laar, M., Fairman, B., Degenhardt, L., Aguilar-Gaxiola, S., Bruffaerts, R., de Girolamo, G., Fayyad, J., Gureje, O., Haro, J.M., Huang, Y., Kostychenko, S., Lépine, J.P., Matschinger, H., Mora, M.E., Neumark, Y., Ormel, J., Posada-Villa, J., Stein, D.J., Tachimori, H., Wells, J.E., & Anthony, J.C. (2010). Early cannabis use and estimated risk of later onset of depression spells: Epidemiologic evidence from the Population-based World Health Organization World Mental Health Survey Initiative. *American Journal of Epidemiology 172*, 149-159.

Decorte, T. (2010). The case for small-scale domestic cannabis cultivation. *International Journal of Drug Policy 21*, 271-275.

DeRosse, P., Kaplan, A., Burdick, K.E., Lencz, T., & Malhotra, A.K. (2010). Cannabis use disorders in schizophrenia: Effects on cognition and symptoms. *Schizophrenia Research 120*, 95-100.

Falenski, K.W., Thorpe, A.J., Schlosburg, J.E., Cravatt, B.F., Abdullah, R.A., Smith, T.H., Selley, D.E., Lichtman, A.H., & Sim-Selley, L.J. (2010). FAAH-/- mice display differential tolerance, dependence, and cannabinoid receptor adaptation after delta 9-tetrahydrocannabinol and anandamide administration. *Neuropsychopharmacology 35*, 1775-1787.

Gray, T.R., Barnes, A.J. & Huestis, M.A. (2010). Effect of hydrolysis on identifying prenatal cannabis exposure. *Analytical and Bioanalytical Chemistry 397*, 2335-2347.

Hathaway, A.D., Hyshka, E., Erickson, P.G., Asbridge, M., Brochu, S., Cousineau, M.M., Duff, C., & Marsh, D. (2010). Whither RDS? An investigation of Respondent Driven Sampling as a method of recruiting mainstream marijuana users. *Harm Reduction Journal 7*, 15.

Hesse, M., Tutenges, S. & Schliewe, S. (2010). The use of tobacco and cannabis at an international music festival. *European Addiction Research 16*, 208-212.

Laaris, N., Good, C.H. & Lupica, C.R. (2010). Delta9-tetrahydrocannabinol is a full agonist at CB1 receptors on GABA neuron axon terminals in the hippocampus. *Neuropharmacology 59*, 121-127.

McBride, O., Teesson, M., Slade, T., & Baillie, A. (2010). Theoretical and observed subtypes of DSM-IV alcohol- and cannabis-use disorders in the Australian population. *Journal of Studies on Alcohol and Drugs 71*, 597-606.

Proudfoot, H., Vogl, L., Swift, W., Martin, G., & Copeland, J. (2010). Development of a short cannabis problems questionnaire for adolescents in the community. *Addictive Behaviors 35*, 734-737.

Rettori, V., De Laurentiis, A. & Fernandez-Solari, J. (2010). Alcohol and endocannabinoids: Neuroendocrine interactions in the reproductive axis. *Experimental Neurology 224*, 15-22.

Rodrigo, C., Welgama, S., Gunawardana, A., Maithripala, C., Jayananda, G., & Rajapakse, S. (2010). A retrospective analysis of cannabis use in a cohort of mentally ill patients in Sri Lanka and its implications on policy development. *Substance Abuse Treatment, Prevention and Policy 5*, 16.

Sevy, S., Robinson, D.G., Napolitano, B., Patel, R.C., Gunduz-Bruce, H., Miller, R., McCormack, J., Lorell, B.S., & Kane, J. (2010). Are cannabis use disorders associated with an earlier age at onset of psychosis? A study in first episode schizophrenia. *Schizophrenia Research 120*, 101-107.

Spiga, S., Lintas, A., Migliore, M., & Diana, M. (2010). Altered architecture and functional consequences of the mesolimbic dopamine system in cannabis dependence. *Addiction Biology 15*, 266-276.

Stella, N. (2010). Cannabinoid and cannabinoid-like receptors in microglia, astrocytes, and astrocytomas. *Glia 58*, 1017-1030.

Werb, D., Fischer, B. & Wood, E. (2010). Cannabis policy: Time to move beyond the psychosis debate. *International Journal on Drug Policy 21*, 261-264.

Wium-Andersen, I.K., Wium-Andersen, M.K., Becker, U., & Thomsen, S.F. (2010). Predictors of age at onset of tobacco and cannabis use in Danish adolescents. *The Clinical Respiratory Journal 4*, 162-167.

Wouters, M., Benschop, A. & Korf, D.J. (2010). Local politics and retail cannabis markets: The case of the Dutch coffee shops. *International Journal on Drug Policy 21*, 315-320.

commentary on research

effect of hydrolysis on identifying prenatal cannabis exposure – a comment on Gray and colleagues (2010)

Jennifer Mackenzie

Early identification of prenatal cannabis exposure in-utero is important due to possible short- and long-term cognitive and behavioural consequences. Self reports by mothers are commonly the only means to identify pre-natal drug exposure; however the accuracy of self-report is hindered by memory deficits and fears of negative repercussions. As such, Gray et al assessed the ability of four types of objective, laboratory methods for assessing prenatal cannabis exposure: no hydrolysis, alkaline hydrolysis, enzyme hydrolysis, and enzyme-alkaline tandem hydrolysis. These four methods were used to test the presence of THC in meconium, faecal matter from the first three days after birth.

The research found that the longer method of enzyme-alkaline tandem hydrolysis (~35 minutes per analysis) was the most effective method for assessing cannabinoid dispositions, with 3.8 per cent of the sample (N=26) showing positive results for cannabinoids. Nearly half as many specimens were positive after non-enzyme or enzyme hydrolysis. Thus, it appears that detection of THC in meconium is dependent upon hydrolysis condition. Importantly, this research confirms previous findings showing that foetal exposure to cannabis in-utero can be detected post-natally, and such a finding warrants research regarding the possible effects on this exposure on the developing child.

Gray, T.R., Barnes, A.J. & Huestis, M.A. (2010). Effect of hydrolysis on identifying prenatal cannabis exposure. *Analytical and Bioanalytical Chemistry 397*, 2335-2347.

commentary on research

the use of tobacco and cannabis at an international music festival – a comment on Hesse and colleagues (2010)

Karina Hickey

Hesse and colleagues (2010) surveyed 1772 patrons of the 2009 Roskilde International Music Festival in Denmark. The 10 minute self-completed questionnaire asked patrons about their drug use (licit and illicit) during the five-day festival and in general. Slightly over half of the sample was male. The average patron was 24 years old and resided in Denmark. The majority of the sample used substances prior to attending the festival. For example, 78 per cent had used tobacco, 64 per cent had used cannabis, and 20 per cent had consumed at least one other illicit drug at some point in their lives. Almost all individuals who used substances outside of the festival during the past year used substances during the festival: 95 per cent used tobacco, 93 per cent used cannabis, and 51 per cent used cocaine.

The survey also looked at the incidence of new drug use among never-users and return to drug use among individuals who had abstained for the past year. A substantial proportion of never-users of tobacco and cannabis reported using these drugs for the first time at the festival (9.2% and 9.3% respectively). Of the past year abstainers from tobacco, 37 (23.7%) reported resuming use at the festival, while 30 per cent of the past year cannabis abstainers resumed use. These patterns were not seen among other illicit drugs. Interestingly, the proportion of days a participant drank 12 or more standard units of alcohol at the festival was associated with an increased odds of both new onset and lifetime use of cannabis. These findings suggest that large rock festivals may be a high-risk situation for never-users and people trying to abstain from use. Furthermore, cannabis use may increase patrons' risk of binge drinking or binge drinking may lead to cannabis use. The results of this study may not be generalisable to an Australian audience as drug consumption patterns and music festival structure may differ to this sample. However, there are still important implications for public health. Festivals may pose an opportunity to deliver targeted prevention and anti-resumption interventions to an at-risk audience.

Hesse, M., Tutenges, S. & Schliewe, S. (2010). The use of tobacco and cannabis at an international music festival. *European Addiction Research 16*, 208-212.

media stories this issue

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**

drugs and alcohol

Good Health: July, 2010

NCPIC Director, Professor Jan Copeland's comment was sought for this article on the negative effects of a range of drugs including cannabis. She says it is "a common misconception that because cannabis is 'natural' it is therefore harmless" and dependence is not an issue for users. She goes on to say that "people who smoke cannabis are at increased risk for cardiovascular disease and are five times more likely to die within the first hour of a heart attack than non-smokers."

highs and lows

Q News: July 2, 2010

In this column on the effects of cannabis use by Dr Fiona Bisshop, issues such as dependence, links with mental health issues, the added harms associated with smoking cannabis and tobacco together, driving whilst under the influence of cannabis, and other health and social issues are discussed.

kids reveal drug habits

Sunday Mail Brisbane: July 4, 2010

According to new research conducted by BoysTown Kids Help Line, "the majority of teenagers [who contact the helpline] believe marijuana is harmless and a 'soft drug' with only 17 per cent of callers seeking help to stop using it." The research was submitted to a Queensland Parliamentary 'Social Development Committee' which is "investigating cannabis-related harm." BoysTown has recommended "Education Queensland develop intervention programs in Year 8 and wants the Government to boost sports and recreation programs." Boredom and peer pressure are thought to be some of the reasons young people use cannabis.

roadside drug testing risks making our roads less safe

Canberra Times: July 7, 2010

This opinion piece by international lawyer and member of Families and Friends for Drug Law Reform, Bill Bush, questions the effectiveness of roadside drug testing. Bush writes that the ACT Assembly recently passed legislation "to provide for roadside drug testing" which includes testing for cannabis. He believes such drug testing is not efficacious, is expensive, is an "infringement of civil liberties" and reduces "road safety by diverting scarce police resources away from measures of proven efficacy."

help me give up marijuana

National Indigenous Times: July 8, 2010

Indigenous psychologist Kym Dann gives information and advice to a reader requesting help to stop using cannabis in her 'Yarning up with Kym' column. She provides statistics about Indigenous cannabis use trends, information about what cannabis is and its effects, as well as useful tips to quit such as adding up the financial costs of cannabis use, getting support from family and friends, seeking treatment and avoiding high risk situations which might trigger relapse.

arts of glass send anti-dope message

Bellarine Independent: July 9, 2010

The glass sculpture *'Smoke and mirrors'*, created for NCPIC's 'Cannabis: It's not our culture' project and exhibition continues to spread the word about the impact of cannabis on Indigenous communities and the solutions the artists see to the issues on its travels around the country. The sculpture was exhibited at Geelong Hospital as part of NAIDOC week celebrations. Artist Kerrie Black says art "helped bring communities together" and that her glass panel in the sculpture shows that "with support, when you walk you don't feel alone". She hopes to continue "to get the message out there that marijuana isn't good for you." To see this and the project's other artworks, order posters and read the accompanying stories, please go to www.notourculture.org.au

new high for pot

Gold Coast Bulletin: July 9, 2010

A US study predicts that the price of high quality cannabis would "plunge by 80 per cent while consumption would double" if California legalises cannabis.

what do we know?

graphic warning imagery to prevent adolescent cannabis use

Dr Sally Rooke

Graphic and emotionally provocative warning images have been employed in anti-tobacco campaigns in Australia for the last four years, appearing in government advertisements and featuring prominently on cigarette packages. Studies assessing the impact of tobacco warning images have found evidence that the images act as an effective smoking deterrent. The images induce negative affective responses, reduce the immediate valence of cigarettes, have been associated with reductions in smoking behaviour, and are perceived by both adolescents and adults to be a more effective smoking deterrent than text-based warnings. Despite their apparent effectiveness, graphic warning images have not been widely employed to deter cannabis smoking. In fact, warnings about the harms of smoking cannabis are relatively scarce.

Cannabis is the most widely used illicit substance among Australian adolescents. While many preventative programs have had limited success, there is reason to predict that graphic and emotion-provoking warning images could be an effective means of reducing adolescent cannabis use. Substance use intervention programs for adolescents and young adults have often focused on providing factual information aimed at changing conscious attitudes and expectancies. However, there is evidence that adolescent behaviour is more likely to be determined by automatic, affect-based cognitions than by rationality. For example, adolescents are less likely than adults to systematically weigh potential costs against potential benefits when making decisions about risk-taking situations.

Corresponding with this, emotion-based cognitions have been shown to more strongly predict the drinking decisions of adolescents compared with those of adults. Relative to adults, adolescents are more impulsive and experience more intense negative emotions, and the primary causes of adolescent injury and mortality all relate to adolescents' low control over impulses or emotions (e.g., substance abuse, reckless driving, violence, suicide). Finally, brain networks associated with impulse control and emotion regulation are not fully developed in adolescence, while networks associated with emotion and reward processing are at their most active during this period.

If adolescents are more inclined to follow their immediate emotional responses rather than their rational beliefs, substance use interventions that can successfully change rational beliefs may still fail because the automatic drive toward the behaviour remains unaffected. Some researchers have proposed that adolescents will experience greater benefit from interventions targeting cognitions such as impulses, emotions, and memory associations. In light of this, NCPIC is launching a project that will test the effectiveness of graphic and emotion-provoking warning imagery in preventing adolescent cannabis use.

Web-based interventions are advantageous in terms of cost, labour, and convenience to the recipient, having the ability to be disseminated to any location at any time and at low cost, with minimal effort on the part of the provider. Thus, NCPIC's program is a web-based intervention that is accessed through email. The intervention consists of 13 automatically generated emails, sent fortnightly, containing links to graphic and emotion-provoking warnings, all based on research into the potential consequences of using cannabis. Some of the images are similar to those appearing on cigarette packages and anti-smoking television advertisements; others depict negative social consequences of cannabis use. Students from three Sydney high schools will enrol in the program. NCPIC will evaluate student perceptions of the images, and also compare over a six-month period the cannabis use of students enrolled in the program with that of students from three schools that are not enrolled.

If the program is effective in reducing adolescent cannabis use, NCPIC will develop a more extensive warning image program that incorporates activities that appeal to adolescents. The program could be disseminated to schools, community groups, and any other institution that that deals with young people at high risk of developing cannabis-related problems and might benefit from having this resource. It could also be generally available on the Internet, thus providing a highly efficient means of helping to prevent cannabis use disorders.

Director of NCPIC, Professor Jan Copeland accepting the plaque for the successful grant application for this study from Australian Rotary Health Director, Phil Lacey.

ncpic contact details

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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