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USE OF CANNABIS IN PREGNANCY AND AS A NEW PARENT 1

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INTRODUCTION

The most common illicit drug used by women of reproductive age and by pregnant women is cannabis (DrugInfo, 2005). Although there are limited national data available on illicit substance use among parents in Australia, the 2007 National Drug Strategy Household Survey estimated 12% of parents with children aged 0–14 years used either an illicit substance (such as marijuana or ecstasy) or a licit substance (such as painkillers) for non-medical purposes in the previous 12 months (Australian Institute of Health and Welfare [AIHW], 2009).

“Maternal substance abuse is a potent risk condition” (Boris in Zeanah, 2000) as infant development can be affected by interrelated mechanisms that are all clinically important; These can be:

- direct prenatal effects
- genetic effects (that influence both parent and infant)
- cumulative social risks.

For maternal child and family health nurses, identification and early intervention through active engagement is a priority. It is also essential to have knowledge of alcohol and drug use, its impact on the user and the baby, and what this means for the parents’ capacity to care for their infant. This article will address these issues and provide an update about cannabis use.

OVERVIEW OF PARENTAL DRUG USE – ISSUES FOR PRACTICE

There are significant challenges in caring for families where parental substance abuse has an impact on their capacity to care for their baby. When assessing the family situation and the needs of the child, the maternal child and family health nurse needs to consider:

- the direct effects of the drug use on the developing fetus
- the likelihood that parents with drug and alcohol problems have particular traits that influence parenting behaviour
- the fact that parental substance abuse is often linked to other risk factors that impact on the baby’s social environment (Boris in Zeanah, 2000).

When considering these factors, it is essential to remember that the baby and its family must be supported antenatally – via family, friends and services – through the early years of life in order for the child to achieve optimal growth and development in the best possible environment.

Healthy child development

A healthy pregnancy is essential for healthy fetal development. ‘Prenatal maternal nutrition, exposures and behaviours are controllable factors that may impact both the fetal brain development and later neurodevelopmental outcomes’ (Massaro, Rothbaum, 2006). As with other areas of

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fetal growth, the development of the brain is reliant on the availability of adequate oxygen, protein, energy and micronutrients to support the complex metabolic processes (Massaro et al., 2006).

Research has highlighted the importance of early experiences and their affect on physical health, cognitive development, emotional regulation (including the stress response system) and mental health across the life course (Jordan & Sketchley, 2009). This in turn affects the baby's capacity to function well as an adult. The key component of the baby's environment is the presence of caring adults or attachment figures who provide the baby with nurturing and responsive relationships based on trust and a sense of safety – a secure relationship.

Considering this knowledge, the consequences of maternal drug use during pregnancy and following the birth have serious implications for the long-term health and wellbeing of the baby.

FACTS ABOUT CANNABIS

The psychoactive chemical in cannabis that makes users feel 'high' is called THC (delta-9 tetrahydrocannabinol). THC is absorbed quickly into the blood and is a 'depressant' drug that slows down the activity of the central nervous system, including the brain. It can also cause mild hallucinogenic effects which may be apparent within a few minutes and can last up to five hours. THC is absorbed quickly into body fat and is then released very slowly back into the blood. It can take up to one month for a single dose of THC to fully leave the body.

Cannabis use – the financial and social costs

Cannabis use is associated with a number of negative effects including the financial cost and the substantial risk of cannabis dependence. Cannabis use is also associated with an increased probability of other illicit drug use, engagement in criminal activity, and poor educational attainment and employment prospects (McLaren, Lemon, Robins & Mattick, 2008).

Types of cannabis

There is a variety of forms of cannabis:

- **Marijuana** – is the most common and least powerful form of cannabis. It is made from dried plant leaves and flowers. The flower (or 'head'), is the most potent form of the plant. Marijuana resembles chopped grass and ranges in colour from grey-green to greenish-brown. It is usually smoked in a

waterpipe (bong), a pipe or in a hand-rolled cigarette (joint). Other names for marijuana include grass, weed, cannabis, mull, pot, dope and yarndi.

- **Hashish** – consists of small blocks of light brown to almost black cannabis resin. The concentration of THC in hashish is higher than in marijuana.
- **Hash oil** – is a thick, oily liquid extracted from hashish and ranges in colour from golden-brown to black. It is usually spread on the tip or paper of cigarettes and then smoked. Hash oil is more powerful than these other forms of cannabis.

In Australia, marijuana is far more common than hashish or hash oil. Cannabis smoke has more tar and contains a higher concentration of certain cancer-causing (carcinogenic) agents than the smoke from tobacco.

What you may observe in a cannabis user

Cannabis use affects each individual differently. A person using cannabis may appear to be very relaxed, or have trouble concentrating. Others may be more talkative or appear drowsy with reddened eyes. They may also present as poorly coordinated or clumsy.

A user of larger amounts or stronger forms of cannabis may find these effects are exacerbated and may present as nauseated, confused, restless, anxious, panicky or overly excited. Some users may report hallucinations or exhibit symptoms of paranoia.

Long-term cannabis users may experience additional effects which include poor concentration, memory loss and learning difficulties. They may also suffer from repeated infections due to a depressed immune system.

Cannabis use and associated mental health problems

The findings of the National Drug Strategy report, *Cannabis and Mental Health: put into context* (2008) addressed the complexity of the relationship between cannabis use and the development of mental health problems. The report found:

- The evidence that cannabis use causes psychotic disorders is not conclusive; however there is good evidence that cannabis use can contribute to the development of psychosis in predisposed people and can exacerbate existing psychotic disorders.
- There is some evidence that cannabis use is associated with an increased risk of depression, particularly with long-term, frequent use and early

initiation of use. These risks may be greater for females.

- The younger the person is when they begin to use cannabis, the more likely are other adverse outcomes associated with cannabis, such as dependence, financial cost/hardship, poorer educational achievement and employment prospects (McLaren et al., 2008).

THE EFFECT OF PARENTAL CANNABIS USE ON THE UNBORN CHILD

Cannabis use during pregnancy is potentially harmful. THC crosses the placenta easily and this may result in shortened gestation, decreased fetal growth, decreased infant birth weight and length, and meconium staining (Hockenberry & Wilson, 2009).

Regular cannabis use during pregnancy may also serve to increase the effects of other drugs and alcohol on the developing baby. Since cannabis use is often combined with tobacco use, there is increased risk to the developing baby due to the combination of the effects of tobacco smoke, nicotine and THC. Smoking marijuana reduces the amount of oxygen in fetal blood similar to smoking tobacco.

The effect of parental drug use on the infant

Infants of mothers who use drugs (including cannabis) and/or alcohol during their pregnancy may experience a withdrawal process in the days following birth. This condition is called Neonatal Abstinence Syndrome (NAS). Most infants appear normal at birth, however the infant of a drug and/or alcohol using mother may begin to exhibit signs of withdrawal within the first 24 hours of life. The amount and type of drug, the frequency of drug use and the complication of multidrug use all influence the initial presentation of NAS.

The signs of withdrawal become more pronounced in the 48 - 72 hours after birth and the infant may continue to experience the manifestations of NAS for up to two months, depending on the severity of withdrawal. Signs of withdrawal in the neonate include:

- irritability, unsettled behaviour, sleep problems
- tremors, jitteriness, seizures
- excessive crying; high-pitched cry
- sneezing, yawning, nasal stuffiness

- poor feeding
- vomiting, diarrhoea
- frantic sucking of hands
- hypertonicity of muscles
- fever, temperature instability, perspiring

(Hockenberry & Wilson, 2007).

'NAS is a syndrome of drug withdrawal observed in infants of mothers physically dependent on drugs, manifested by nonspecific symptoms and signs in the infant. NAS is more common in infants born to opioid-dependent women than in infants born to women dependent on other drugs or alcohol'
National Clinical Guidelines for the Management of Drug Use during Pregnancy, Birth and the Early Development Years of the Newborn 2006

CARE OF THE INFANT

Discharge of mothers and their infants from maternity units within 24 hours of birth is common practice. In some cases mothers may not have disclosed their drug use at their antenatal visits and in other cases there may have been poor attendance by the pregnant woman to antenatal appointments. In these situations, the maternal child and family health nurse providing the first home visit may be presented with a baby displaying the early signs of NAS and may require a complex care plan.

The nurse will need to assess the complexity of the situation, taking into consideration the mother's past and current drug use and the family dynamics, as well as the availability (or lack of) community links and supports. If the mother is able to provide appropriate, safe care for her infant, the maternal child and family health nurse will need to work with the mother to put in place strategies to address NAS.

Strategies to address an infant's NAS, as recommended in The *'National Clinical Guidelines for the Management of Drug Use during Pregnancy, Birth and the Early Development Years of the Newborn'* 2006 (The guidelines) suggest supportive care interventions, including:

- a quiet setting
- breastfeeding

- use of a 'dummy'
- cuddling
- swaddling
- small frequent feeds
- close skin contact by carrying in a sling and other methods.

The guidelines also recommend close monitoring of the baby's weight loss during the period of withdrawal because feeding disturbances are common. If caloric intake appears insufficient with breastfeeding alone, the child and family nurse may need to consider recommending expressed breast milk or formula to supplement the baby's feeding until adequate caloric intake is established.

Breastfeeding and cannabis use

The active component of cannabis, THC, is fat soluble and is rapidly distributed into brain and adipose (fatty) tissue. The analysis of breast milk in chronic heavy cannabis users shows an eightfold accumulation of THC in breast milk compared to plasma. Infants exposed to cannabis through breast milk will test positive in urine screens for two to three weeks (Liston, 1998). These infants may often exhibit signs of sedation, weakness and poor feeding patterns. Cannabis has also been implicated in the reduction of basal prolactin levels which may lead to decreased milk production (Hockenberry & Wilson, 2007).

As suggested by Hockenberry & Wilson (2007), the potential risks of a cannabis user breastfeeding her infant should be weighed up against the benefits of breastfeeding. Since cannabis is a long-acting drug, it is not recommended to advise a breastfeeding mother to take the drug after breastfeeding (as for alcohol). As women who use cannabis often do so by smoking marijuana, the guidelines recommend that advice to mothers and others should be as for tobacco: smoke away from the infant, out of the house, and not in the car.

Breastfeeding mothers should also be informed that their milk production may be reduced by as much as 250mls per day if they choose to smoke tobacco. As tobacco is sometimes mixed with marijuana for smoking this is relevant to cannabis-using mothers. If the mother continues to use cannabis

while breastfeeding, her baby will require regular monitoring of growth and development by both a paediatrician and a maternal child and family health nurse.

APPROACHES TO CARE

Ongoing work with mothers where cannabis use is evident presents a number of challenges for the maternal child and family health nurse. Initial work may focus on the development of the relationship with the mother in an effort to support her to safely care for her baby. The development of a partnership through successful engagement of the mother is crucial to the relationship. The 2006 National Clinical Guidelines stress the importance of the practitioner's engagement skills. Some of the skills listed include possessing:

1. an understanding of one's own values and beliefs in a way that results in non-judgemental attitudes to people in care
2. an understanding of addiction as a healthcare issue and not an issue for moral, social or other judgments
3. the ability to create an environment that is safe and ensures privacy and confidentiality
4. an understanding that disclosing drug and alcohol use is difficult and acknowledging the woman's feelings and perceptions
5. an understanding of potential barriers to the woman accepting care, and strategies for overcoming them
6. an understanding of the significance of establishing and sustaining a sound and trusting professional relationship with women with drug and alcohol issues
7. an awareness that drug and alcohol use is not isolated from other psychosocial and cultural factors
8. awareness that women with drug and alcohol issues often have a number of service providers involved in their lives.
9. a commitment to providing optimal and timely healthcare for every individual

SHORT AND LONG-TERM CARE ISSUES

There are short and long-term health and wellbeing issues for the infant and the mother associated with cannabis use. Cannabis use causes reality distortion and this may create a situation where a mother may find it hard to cope with an emergency situation or have difficulty performing small motor activities. The mother may also have a desire for sleep after the 'high' wears off. Sometimes this is a deep heavy sleep, in which the mother may be unresponsive to her baby's needs.

The maternal child and family health nurse will need to work with the mother to ensure the level of risk is reduced for the baby as well as for the mother. By using a 'harm minimisation' approach, the nurse informs the mother of the risks and addresses issues such as:

- Sudden Infant Death Syndrome (SIDS) – discuss the risks and provide information about safe sleeping and co-sleeping
- passive smoking – provide information about the dangers of the baby being exposed to both cannabis (marijuana) and tobacco smoke
- the baby's growth and development – talk with the mother about the importance of the baby's and her own nutritional needs
- the importance of the mother/baby relationship – discuss the baby's need for nurturing
- breastfeeding – highlight the risks of exposure to THC to the baby (through breast milk and marijuana smoke)
- referral to drug and alcohol services – encourage seeking help to address the drug use
- mental health concerns – highlight the association of mental health disease and cannabis use
- confidentiality and child protection concerns – if the situation supports an open and transparent nurse/mother partnership, be explicit in addressing the risk to the child. If this is not possible, the nurse needs to consider the risk and protective factors for the child and subsequently act *in the best interests of the child*.

What is harm minimisation?

It is the primary principle underpinning the National Drug Strategy and refers to policies and programs aimed at reducing drug-related harm. It aims to improve health, social and economic outcomes for both the community and the individual, and encompasses a wide range of approaches, including abstinence-oriented strategies. Australia's harm minimisation strategy focuses on both licit and illicit drugs. Harm minimisation includes preventing anticipated harm and reducing actual harm.

WHEN IS A CHILD PROTECTION NOTIFICATION NECESSARY?

All state and territory jurisdictions have specific legislation with regard to child protection. Although drug and alcohol use alone may not be an indicator for a child protection report or notification, child protection is a consideration when working with families where parental drug use is present. Legislation requires that the safety and wellbeing of the child is a paramount consideration (NSW Department of Health, 2006).

There is substantial evidence that the co-occurrence of parental substance misuse and other mental health disorders is associated with a significantly heightened risk of child maltreatment.

Children living with parents who are problematic alcohol or substance users are at greater risk of poor health and wellbeing outcomes. The impact of parental substance use on children may differ between families depending on risk and protective factors. However, children are at greater risk when exposed over a long period of time to multiple risk factors including parental mental health problems, socioeconomic disadvantage, crime and violence (Dawe et al. 2007). Parents who are problematic alcohol or substance users often have co-existing mental health problems (AIHW, 2009).

CONCLUSION

As part of the ongoing care with families where parental drug use is an issue, the maternal child and family health nurse will need to continually assess the risk and protective factors for the child. Although this can sometimes be very challenging, it is absolutely critical to always continue to act in the best interests of the child.

HEALTHCARE PROFESSIONALS: DRUG AND ALCOHOL INFORMATION SERVICES

National Quitline number 13 7848 (*cost of local call*)

Australian Capital Territory

Alcohol and Drug Service (ADIS)
02 6207 9977

New South Wales

NSW Drug and Alcohol Specialist Advisory Service (DASAS) 02 9361 8006
(24-hour health professionals telephone service) 1800 023 687 (*outside Sydney*)

Northern Territory

Drug and Alcohol Clinical Advisory Service (DACAS-NT) 1800 111 092

Queensland

Queensland Drug Information Centre
07 3636 7098

Therapeutic Advice and Information Service
1300 138 677

Alcohol and Drug Information Service (ADIS)
07 3236 2414

(24-hour counselling, information and referral) 1800 177 833 (*outside Brisbane*)

South Australia

Alcohol and Drug Information Service (ADIS) in SA 1300 13 13 40

Tasmania

Drug and Alcohol Clinical Advisory Service (DACAS) 1800 630 093

Victoria

The Women's Alcohol & Drug Service (pregnancy care and professional support)
03 9344 3631

DirectLine (24 hour counselling and referral)
1800 888 236

Western Australia

Antenatal Chemical Dependency Clinic (ACDC)

Women's and Children's Health Service
08 93401379

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For further information contact the Centre for Community Child Health, The Royal Children's Hospital, Melbourne. Phone 03 9345 7085 or Fax 03 9345 5900 www.rch.org.au/ccch

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