Elissa Wood, Richard P. Mattick,
Lucy Burns & Anthony Shakeshaft

The costs and utility of parental drug-testing in child protection: A review of the available literature and commentary

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THE COSTS AND UTILITY OF PARENTAL DRUG-TESTING IN CHILD PROTECTION: A REVIEW OF THE AVAILABLE LITERATURE AND COMMENTARY

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EXECUTIVE SUMMARY

Aims

- The aim of this project was to undertake a comprehensive review of the research evidence related to the utility and cost of parental drug-testing in child protection cases.
- Articles were located via databases: APAIS – Health, MEDLINE and PsycINFO, and using keywords: 'drug testing' and 'parent#', and for more specific research questions 'child protection', 'workplace', 'gender', 'rehabilitation', 'screening', and 'assessment'. Searches were also conducted using reference lists of existing related literature reviews and reports. Documents were also accepted from the Department of Community Services, resulting from their own literature searches.
- Assessment of alcohol misuse has not been included in the report, although it is acknowledged that alcohol is a substance of concern in parental substance abuse.

Findings

The extent of the evidence

- The potential effects of parental substance abuse range widely and, while the causal relationship between parental substance abuse and child abuse or neglect could be considered at length, suffice to state that there is an increased risk of potential negative effects on the family. Drug use in the context of true drug dependence is of greater concern than lower levels of consumption.
- The literature on the value of parental drug-testing in the context of child protection is small, but suggests its appropriate use is feasible and that it can promote better outcomes in child-at-risk cases, as long as monitoring and compliance with testing and treatment entry are supported.
- Similarly, the use of drug-testing as a broad sweep approach to drug use in the workplace is not consistently found to be useful, and is best used in the context of additional supports to provide treatment for drug problems that occur therein.
- Overall, it seems practical to recommend the use of parental drug-testing, assuming there is reasonable suspicion of substance abuse, multiple tests are undertaken over periods ranging between two to six months or more (depending on level of use), confirmation testing is undertaken on all positive results, and parents who are seeking treatment or found to be drug abusing/dependent are immediately referred to treatment in a supportive fashion.

Best practice in drug-testing

- Drug-testing is limited in its ability to determine dependence and/or impairment in relation to parenting ability; however, drug-testing may have some utility in leading to treatment and/or confirmation of self-reports of use.
- Urine or hair testing are the recommended methods of drug-testing in the context of child protection. The use of regular frequent urine testing, which is best conducted on a random basis, is a preferred method, but is expensive. Less expensive is hair testing, as hair can be easily harvested and analysed in Australia for a long observation window.
- The use of frequent (weekly or more often), regular, monitored urine testing is one best practice model with good reliability and validity. Hair testing has significant benefits that should be weighed up in terms of convenience and the desired window of observation. Both are best practice and reliable methods for assessing the extent of ongoing illicit drug use.
- Given the evidence (albeit limited) on the role of drug-testing assisting in management of parents with problematic drug use patterns and children at risk, hair testing seems to be a viable and useful tool for management of these cases, although hair testing is currently not common practice in drug treatment agencies and is mainly used in the workplace and for court purposes.
- It has been suggested that the therapeutic relationship between caseworker and client may be jeopardized if the caseworker is also the person responsible for collecting the specimen for drug detection. For this reason, it seems preferable that a third party be responsible for collection.

Drug use and parenting capacity

- There is no level of illicit drug use that can be claimed to be reasonable, if it inhibits parents' ability to effectively and safely parent their children, although regular daily use and preoccupation with use is the most debilitating. Binge use for consecutive days will cause dysfunction for the period of the binge use and for the subsequent days of recovery. If use is to occur, then infrequent use (weekly to monthly or less often) is the pattern least likely to compromise parenting skills.
- Children of different ages will be affected differently by substance using parents. Infants and young children will be more prone to suffer the effects of neglect, such as malnourishment and poor parental bonding. In addition to experiencing these effects, older children may also take on the role and responsibilities of the parent, or imitate the parent's behaviour.
- It is important to note that not all substance using parents experience impaired parenting capacity; however, it seems reasonable to assume that longer term dependent parents may be diminished in their capacity to parent effectively, due to the significant amount of time given to drug seeking and taking.

- There is a high level of mental health disorders among drug dependent people. In particular, there are high levels of post-traumatic stress disorder, borderline and antisocial personality disorder and anxiety and depression. It is likely these will also impact on ability to parent.

Treatment issues

- There are a variety of treatment modalities available, although overall evidence suggests the longer a person remains in treatment the better the outcome, with respect to diminished drug use.
- There are no gender differences in treatment compliance; however, there is some evidence to suggest women may benefit more from treatment catering for women only, and family-focused treatment may be beneficial to parents with children.

1. INTRODUCTION

Drug use in our society is a widespread and an increasing problem. In 2004, approximately 24% of people aged between 14 and 40 years, including parents, used an illicit drug in the previous 12 months (National Drug Strategy Household Survey 2004). It is well established that excessive drug use leads to a number of negative outcomes including increased morbidity, mortality, and disability in everyday functioning. This disability clearly extends to the role of parenting, although the international research specifically on this topic is more limited than is available for other harms, and a review of the impact of drug use on parenting skills is outside the scope of the current review.

However, some existing reports place the extent of the problem in perspective. The Victorian Department of Human Services reported that in 2000-2001, about a third of parents of children and young people entering foster care reported having problems with alcohol abuse and a third had other substance abuse problems. It was also suggested that increasing levels of substance abuse are one of the main reasons for the increasing number of children entering the child protection system (Victorian Government Department of Human Services 2002). Similarly, in the New South Wales Department of Community Services 2002 Annual Report, it was estimated that up to 80% of all child abuse reports investigated had concerns about drug- and alcohol-affected parenting (Ainsworth 2004).

Although few Australian studies attempt to determine the extent to which child maltreatment and substance abuse interact (Keys Young cited in Tomison 1996), US research indicates problems related to alcohol and other drug use increase the number of children and their families who require child welfare services (Curtis & McCullough 1993). US research has also concluded that children in families with substance abuse problems come to the attention of child welfare agencies at a younger age than other children, are more likely to be placed in care, and once in care are likely to remain in care for longer periods (Semidei et al. 2001). It is reasonable to conclude that similar observations would also apply in Australia, such that the accurate assessment of illicit drug use becomes an important issue.

One method for assessing and attempting to reduce illicit drug use in the context of child protection is providing drug-testing; that is, the detection of metabolites of drugs in body fluids or tissue. While drug-testing has been utilized in a variety of contexts such as sport, prison, and workplaces, drug-testing in child protection has been predominantly utilized in a legal context, to check self-reports from parents regarding their drug use.

While commentators and researchers have considered the effects of ongoing parental illicit substance use on the health and well-being of children, there is apparently little evidence to show a strong causal relationship between the two (Ainsworth 2004, Rittner & Dozier 2000). Despite this, there is agreement that parental substance abuse is a concern in numerous child protection cases (Ainsworth 2004, Home Office 2003), and that parental preoccupation with

obtaining and using drugs, intoxication, and recovery from the effects of illicit drugs, are likely to impact seriously on parenting ability. The relationship between substance abuse and parenting is complex, as demonstrated in a literature review concerning parenting skills and methadone-maintenance (Dawe et al. 2000). It was acknowledged that while children of substance abusing parents are at increased risk of child abuse and neglect, a range of social and individual factors correlate with poor parenting, and it is often the quality of the parent-child relationship that mediates the effects of most other risk factors on child development. *Understanding the full extent of the impact of illicit drug use, and the types of impacts, on parenting ability is beyond the scope of this analysis, but a careful synthetic review is warranted, to inform a fully evidence-based policy.*

This current review evaluates practices of drug-testing in child protection, and, given the broader context of parental drug use, also considers alternative methods of assessing parental use of illicit substances.

2. METHODOLOGY

To undertake this review, articles were located via bibliographic databases: APAIS – Health, MEDLINE and PsycINFO, using keywords 'drug testing' or 'drug testing' and 'parent#', and for more specialized research questions 'child protection', 'workplace', 'gender', 'rehabilitation', 'screening', and 'assessment'. Results from the Australian database APAIS – Health, using the key term 'drug testing', produced 53 results, of which the major topics were sport (n=23) and the workplace (n=20). Other topics included drug-driving (n=2), prison (n=2), schools (n=2) and miscellaneous (n=4). No articles were concerned with child-protection or welfare. The combined totals from MEDLINE and PsycINFO, using keywords 'drug testing' and 'parent#' (excluding duplicates) produced 38 results, of which 5 were identified as relevant (Pollack et al. 2002, Fraser 2001, Fraser 1998a, Fraser 1998b, Famularo et al. 1988). Searches were also conducted using reference lists of existing related literature reviews and reports to retrieve further documents. Documents were also provided by the NSW Department of Community Services, resulting from their own literature searches.

3. BACKGROUND: PARENTING AND DRUG USE

3.1 Overview

To clarify some of the issues specific to parenting and child protection in the context of drug use, the following areas have been discussed in more detail: reasonable levels of drug use, the difference between drug use and dependence, and how drug use can affect parenting capacity and specifically the family. Whilst these are complex issues, they should be carefully considered before deciding whether drug-testing is the most appropriate method of determining drug use.

3.2 What might constitute 'reasonable' levels of drug use?

It might be said that there is no reasonable of acceptable level of use of an illicit drug. The levels of use that are associated with the least harmful consequences for family dynamics/care of children are difficult to define in an absolute fashion. Drug use can be sporadic and infrequent, or more frequent and chronic and long-term, yet each pattern of use has the potential to become problematic and affect not only the person using the drug(s), but their children, friends, work colleagues and family (Teesson et al. 2002). Reasonable levels of drug use have never been defined and the notion of a reasonable level of use has to be carefully considered. If reasonable use is meant to imply least impairment then the level of use is best related to the nature of the drug effect (i.e. drug type, potency and frequency of use) and the context in which use occurs (e.g. in front of children, at times when active supervision and care should be occurring). The effect and context will vary.

For example, the use of marijuana once late at night may be less problematic for care of children than smoking the drug several times throughout the day and night. Some regular cannabis users can smoke up to 30 times per day, while others will tend to smoke at night based on their perception that it will assist with relaxation and sleep. It is likely that level of impairment will differ greatly between the two patterns of use. Use of heroin, amphetamine or cocaine once every few days, or even once at night, is similarly less problematic than using three to four times daily.

Generally, a reasonable level of use could be considered by some as best represented by the ability to abstain from use, but some may consider reasonable use to be infrequent use of the drug as producing the least adverse consequences on the individual and the family. Characteristics of dependence, such as tolerance, withdrawal and inability to control use, are likely to make drug use harder to manage, and potentially have more harmful effects on the family. Having provided that background, more precise comments and observations regarding substance use and parenting are pertinent.

Abstinence as the goal. Any use of illicit drugs has the potential to impact on parenting ability and decision-making and may place a child at risk, even if only for a short period. Similar comments pertain to intoxication with alcohol, and the impacts of aggression, violence,

disinhibition (potentially leading to acts of sexual and physical abuse), and the risk of road trauma from being driven about by an intoxicated parent, are quite significant. Thus, the least controversial position on the issue of 'reasonable' levels of use is that no use is reasonable. The Australian governmental and general societal response to illicit drug use is one of disapproval and lack of acceptance.

Dependent use is most problematic. At the other end of the spectrum, it can be said with confidence that regular daily or near daily use is likely to be most harmful to the parent and to the care of the child. Regular daily dependent use is often associated with preoccupation with drug-seeking, which includes access to the necessary monetary funds to purchase drugs. The process of accessing drugs, and contacting and meeting 'dealers' to purchase drugs, sometimes accompanied by sex work and other illegal activity, often places the parents in a compromised position, in terms of their ability to care for themselves and their children. The use of household income to purchase drugs (and tobacco products and alcohol) greatly compromises the ability of those with marginal incomes to purchase appropriate food and other household necessities to care for children. Apart from the time and financial costs required to obtain, prepare and ingest drugs, the effects of intoxication can cause parents to be unable to provide responsible care for significant amounts of time. Regular or dependent use is, therefore, the most problematic for parenting, given the greater preoccupation with obtaining, using and recovering from drug use.

Infrequent use is less likely to create care or family dynamics problems. Arguably less problematic for care and family dynamics is an infrequent level of use, where there is less expense, less time taken, and less intoxication.

Binge use can be debilitating. A less obvious use pattern is 'binging', where a parent may be largely abstinent from drug use, but once every few weeks has periods of several days (and up to a week or longer) of frequent use each day with prolonged periods of intoxication and recovering from the effects of drugs.

Summary. There is no level of illicit drug use that can be claimed to be reasonable, if it inhibits parents' ability to effectively and safely parent their children, although regular daily use and preoccupation with use is the most debilitating. Binge use for consecutive days will cause dysfunction for the period of the binge use and for the subsequent days of recovery. If use is to occur, then infrequent use (once weekly to monthly or less often) is the pattern least likely to compromise parenting skills. The situation regarding illicit drugs is analogous to that which may occur with alcohol misuse or dependence.

3.3 What level of use is indicative of dependence?

There is, in fact, no level of use that indicates dependence in an absolute fashion. For this reason, it is noted that the absolute level of use is not mentioned as a diagnostic criterion in the diagnosis of dependence. This may surprise the untrained observer, but short-term daily

use may not cause dependence, and lack of regular use for a period may hide a true and deep dependence. For these reasons, dependence is defined as a set of physical problems of tolerance and withdrawal, along with an obvious preoccupation with drug use and difficulty ceasing use, with neglect of usual roles or daily tasks. The criteria for drug dependence are outlined below. (The DSM-IV also describes specific criteria of withdrawal for individual classes of substances, as noted later on page 38.) *The criteria for drug dependence and abuse are quite easily operationalised and should be included in training programs.*

In the DSM-IV (*Diagnostic and Statistical Manual of Mental Disorders, 4th edition),* drug dependence is defined as a maladaptive pattern of substance use, leading to impairment or distress, as is manifested by three or more of the following, occurring in a 12 month period:

1) tolerance to drug effects, as defined by either a need for markedly increased amounts of the substance to achieve intoxication or the desired effect; or markedly diminished effect with continued use of the same amount of the substance;

2) withdrawal, involving the characteristic withdrawal syndrome for the substance, or else the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms;

3) the substance is often taken in larger amounts or over a longer period than was intended;

4) there is a persistent desire or unsuccessful efforts to cut down or to control substance use;

5) a great deal of time is spent in activities necessary to obtain the substance, use the substance (e.g. chain smoking), or recover from its effects;

6) important social, occupational, or recreational activities are given up or reduced because of substance abuse;

7) the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.

The DSM-IV defines drug abuse as a maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) or the following, occurring within a 12 month period:

1) recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g. repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household);

2) recurrent substance use in situations in which it is physically hazardous (e.g. driving an automobile or operating a machine when impaired by substance use);

3) recurrent substance-related legal problems (e.g. arrests for substance-related disorderly conduct);

4) continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of substance (e.g. arguments with spouse about consequences of intoxication, physical fights).

3.4 What level of drug use affects capacity to parent? At what point does drug use affect competency, particularly behaviour that may impact on parenting?

There is always the potential for competency to be affected by drug use; however, the level of drug use considered most problematic is regular, dependent use, as dependence often diverts a parent's attention away from normal obligations including care of children. It is important to note that drug dependence does not automatically result in a diminished capacity to parent adequately; however, it does *increase the potential* for negative family consequences or behaviours that might be considered 'bad' parenting (Barnard 1999) such as leaving young children unattended (without suitable supervision), exposing children to the buying, selling and using of drugs, driving with children in the car while intoxicated, and neglecting or sporadically addressing the needs of the children (Breshears et al. 2004).

It is difficult to clearly define how parenting capacity is affected by substance use, as there are a range of ways substance using parents manage their drug use and parenting responsibilities. Some parents struggle to negotiate their drug use and their role as a parent. This can show itself in the fear parents may have of losing custody of their children, and the need for drugs to cope with the stress of daily living (McMahon et al. 2002). (These have both been cited as reasons for parents not seeking help.) However, there is evidence that successfully methadone-maintained parents, who do not feel the need to supplement their methadone with other drugs, have strong potential for good childrearing ability (Finnegan et al. 1981), and it is certainly possible for a parent to prioritize their children's needs before their own need for drugs (Rosenbaum 1981).

It is also important to consider other factors which may influence behaviour and impact on parenting, such as biological and/or environmental factors, particularly as some symptoms of drug abuse may overlap with mental health issues and disorders including post-traumatic stress disorder, anxiety and depression (Famularo et al. 1989). Other research suggests parents who have been exposed to traumatic life events or domestic violence (Finnegan et al. 1981), who experienced deficiencies in their own upbringing, or experienced guilt or stigma attached to a previous addiction (Grief & Drechsler 1993), would experience more difficulties in their parenting abilities.

A study of injecting drug users in the UK suggested there was a perception amongst drug users that social services had such a negative image of women drug users that they would deem them all to be unfit mothers purely on the basis of their drug use, regardless of their parenting capabilities (Taylor cited in Powis et al. 2000). In light of this view, it is important to acknowledge the fact that parenting competencies and capacities vary widely in substance abusing parents as they do in non-substance using parents. *To accurately describe how substance use, abuse or dependence affects individual parenting abilities, further research into this issue is necessary, especially in the Australian context.*

3.5 How does drug use impact on the family in the context of co-parenting, where one or more parent is a drug user?

Just as families comprise of different members, similarly the way families deal with a drug using parent may also differ. Potential impacts of drug use on the family may include: marital conflict, separation and divorce, domestic violence, family conflict, economic strain, social isolation, disrupted or impaired parenting and disturbances in children of drug abusing parents. Family life may become chaotic and unpredictable, while the mood of the drug using parent may set the tone for the entire family. In separated or divorced families, the drug using parent may be demonized because of their drug use by the non-using parent, creating conflict or confusion for the child. Characteristics of family interaction may include negativism (e.g. complaints, criticism), parental inconsistency (e.g. rule setting is erratic, enforcement is inconsistent, and family structure is inadequate), and parental denial of a drug problem, whilst family members may experience feelings of abandonment, anxiety, fear, anger, concern, embarrassment or guilt (Reilly cited in Centre for Substance Abuse Treatment 2004). Some family members may choose to ignore the parent's drug use and avoid dealing with the issue. Specifically, children may choose to retreat into their rooms or other activities rather than deal with their parent's drug use. Similarly, where only one parent is using drugs, the non-using parent may choose to work more, or spend less time at home to avoid dealing with their partner's drug use.

Most research conducted on the effects of parental substance abuse on children concerns the impact of alcohol rather than illicit substances, and little research has been conducted regarding the effects on the family as a unit. The existing research surrounding families affected by parental substance abuse is predominantly case studies or from small samples; therefore difficult to draw strong conclusions (Conners et al. 2004), indicating the need for more research in this area. The US Department of Health and Human Services *Guide for Child Welfare Workers* recommends, where only one parent is a drug user, an assessment of the relationship between the drug-abusing parent and the non-using parent to detect co-dependence (Breshears et al. 2004). The non-using parent may feel responsible for their partner's drug use or feel that they can stop their partner from drinking or using drugs. Alternatively, the non-using parent may avoid the issue or not be aware of the extent of their partner's drug use and the effect it may be having on their children. As several studies indicate spousal/social support is a factor in improving addiction treatment outcomes (Laudet et al. 1999, Karoll & Poertner 2003, Dobkin et al. 2002), it is important for non-using parents to also receive support and counselling to assist in making safe and healthy choices for themselves and their family. Family therapy may be beneficial to parents struggling to negotiate their own or their partner's drug use and parenting responsibilities.

What are the risks and impacts?

It is important to note, while there are no definite effects of parental drug use on the child, there are increased risks, and these risks may differ depending on the type and amount of substances used, and the age of the child, amongst other factors (Johnson & Leff 1999). As infants are helpless, they may experience neglect or abuse in the form of malnourishment, exposure to drugs (actively, to sedate the child, or passively through smoke inhalation or

access to drugs/drug paraphernalia) (Klein et al. 2000), and poor parental bonding due to the parent being physically and emotionally unavailable (Mitchell et al. 2001). Some research indicates there is an increased risk of Sudden Infant Death Syndrome (SIDS) in infants of substance abusing parents, although the strongest relationship is between maternal smoking and SIDS (Kandall & Gaines 1991). As older children tend to become aware of their parent's drug use, such children may feel they are responsible for, or ashamed of, their parent's drug use (Breshears et al. 2004); the child may take on the role and responsibilities of the parent ('parentified'), such as caring for siblings (Howard 2000); or imitate the behaviour and attitudes of the parent. Evidence also suggests parental drug use increases the risk of a child becoming a substance user in the longer term (Mitchell et al. 2001). Other risks to consider include poor hazard detection such as: driving with children in the car while intoxicated; leaving children with an inappropriate caretaker or unattended; inconsistent behaviour towards children; neglect of basic needs such as regular meals, clothing and cleanliness; using funds to purchase drugs instead of necessities such as food; and impaired judgement regarding the needs of the child (Breshears et al. 2004).

4. RESULTS: DRUG-TESTING IN CHILD PROTECTION AND WELFARE

4.1 Overview

In a small body of literature, parental drug-testing has been presented as a method of reducing parental drug use, or to ascertain level of drug use. This is particularly so in the US, where family drug courts have used drug-testing to validate self-report and/or to refer parents into treatment, with the intention of helping neglected and abused children of substance abusing parents. Family drug courts in the US were introduced to link the legal system, child protection and drug and alcohol services together, and emerged from the increasing number of child abuse and neglect cases that involve substance abuse (Harrell & Goodman 1999). While these integrated systems have been met with some praise (Wolf 2000), few comprehensive evaluations have been conducted to assess the benefits of using drug-tests to monitor parental drug use. There are, however, two interesting studies from North America: one involved over three hundred parents of children at risk in Washington, D.C. (Newmark 1995); and the other was a six year study of urine drug-testing in Canada (Fraser 2001). These are considered in detail below (and copies are attached to this report). In addition to these articles, two further studies, which have considered specific aspects of parental drug-testing, will also be examined (Famularo et al. 1989, Rittner & Dozier 2000).

4.2 Newmark (1995)

The Washington D.C. study by Newmark (1995) compared the outcomes of 169 parents tested for drug use in child abuse and neglect cases, with 159 parents who were not tested. The testing was conducted initially on a weekly basis for an indefinite period, although in a minority of cases limited numbers or fixed dates were used (e.g. one time only testing or testing to yield three consecutive negative results). It was found that parents who participated in drug-testing were more likely to experience shorter overall case processing times; their children were more often placed with a primary caregiver or other family member, rather than foster care; they received more referrals to available services; and were more cooperative with referrals to diagnostic services. The results of this study should be treated with some caution, however, as the two groups were not randomly assigned and there were pre-existing differences between them: specifically, non-drug-tested cases may have been more severely troubled than drug-tested cases at the start of the course, raising serious concerns about the comparability of the two groups, even though there was some attempt to control for this difference statistically (Newmark 1995). Non-compliance with the testing process ('no-shows' or other reasons the test did not occur) was high at 37%. This may indicate that any reductions in drug use in the drug-testing group were not attributed to the actual drug-testing, but some another factor: for example, greater levels of social support.

4.3 Fraser (2001)

In contrast, Fraser's (2001) study of drug-testing parents with a history of substance abuse in Canada, did not report compliance as an issue. This may have been overcome by having a nurse collect specimens directly in participants' homes, rather than placing the onus on the

parent to visit the collection site. However, the study did report a wide variance in the number of samples submitted. It is possible that this equates to non-compliance, given the potential for participants to not answer their door or be unable to provide a sample. In addition to the potential impact on compliance, it was noted that home visits by nurses presented an opportunity for them to assess the family dynamics and to check drug prescription containers, thereby providing additional information to family courts that would not be attainable by parents attending a central collection site (Fraser 2001).

The first follow-up in this study reported on 125 clients who were tested from 1994-1996. Of the 3,613 specimens provided in this time period, the proportion that tested positive reduced from 100% (all specimens positive) to 50% of specimens positive (Fraser 1998a). In a later article, it was noted that drug-testing may be an effective deterrent to drug use, as 30% of clients provided consistently negative specimens for 6 to 12 months (Fraser 1998b). Between 1994 and 1999 there were decreases in the number of specimens testing positive for cannaboids, cocaine and opiates (codeine and morphine). The study also claimed urine drug-testing was most effective (as an assessment or monitoring tool) when participants were required to give multiple samples, using a random schedule (Fraser 2001).

Based on the results of this study, Fraser (2001) concurred with Famularo and colleagues (1988) in recommending the use of parental drug-testing, assuming the following conditions are met: there is reasonable suspicion of substance abuse, multiple tests over periods ranging between 2 to 6 months (depending on level of use), confirmation testing on all positive results, and parents who are seeking treatment or who are found to be drug abusing/dependent are referred immediately to treatment. This positive attitude towards the value of parental drug-testing is evident in much of the US literature.

4.4 Other studies

Although the role of parental drug-testing as an intervention has been evaluated by only two studies (Newmark 1995, Fraser 2001), other studies have evaluated the specific issue of compliance in court-ordered substance abuse treatment in child protection (Famularo et al. 1989, Rittner & Dozier 2000). In a study conducted by Famularo and colleagues (1989), consisting of 218 cases, non-compliance (defined as inadequate attendance) was common among certain substance-using parents. Polydrug users were found to be the least compliant in attending treatment. Parents who neglect their children, but do not physically or sexually abuse them, were more likely to comply with treatment referrals than those who physically or sexually abuse their children. The article concluded approximately four out of five persons with a substance disorder did not receive adequate intervention by virtue of non-compliance. In a study of 447 cases, Rittner & Dozier (2000) also identified non-compliance (i.e. not attending scheduled tests, failure to produce sample) as an issue, although they reported that increased involvement of relatives diminished risks of non-compliant parents continuing to abuse children.

Other issues mentioned in the literature include a lack of appropriate treatment services for those who test positive, particularly treatment services for parents with children (especially child care facilities); the limitations of drug-tests (e.g. variability in sensitivity and specificity of specific drug-tests); the effect of drug-testing on the client/caseworker relationship; and extended waiting times for court-ordered treatment (Children's Welfare League of America 1997).

4.5 Drug-testing welfare recipients

The recent proposal for drug-testing and mandatory treatment for welfare recipients in Canada was reviewed by several experts from the Centre for Addiction and Mental Health Link. They concluded it was inadvisable for several reasons: drug-testing cannot be used to determine substance abuse or dependence; it could undermine the client/caseworker relationship; and it could be legally challenged as a violation of human rights. Other drawbacks include possibly negative societal consequences and disruptions to the treatment population (Macdonald et al. 2001). Similar concerns were also reported in a study of drug-testing welfare recipients in the US. It was suggested that drug-testing without suspicion of drug use raised issues of privacy and cost-effectiveness. For example, casual drug users may be detected and referred into scarce treatment services, resulting in dependent drug users being turned away from much needed treatment. A more holistic approach to determining drug use was recommended, incorporating social/psychological tests to identify drug dependence and psychiatric disorders (Pollack et al. 2002).

4.6 Summary

The literature on the value of parental drug-testing in the context of child protection is small, but suggests that its appropriate use is feasible and that it can promote better outcomes in child-at-risk cases, as long as monitoring and compliance with testing and treatment entry are supported. It seems reasonable to recommend the use of parental drug-testing, assuming: there is reasonable suspicion of substance abuse, there are multiple tests over periods ranging between 2 to 6 months (depending on level of use), there is confirmation testing on all positive results, and parents who are seeking treatment or who are found to be drug abusing/dependent are referred immediately to treatment in a supportive fashion. Without these conditions, drug-testing could be perceived as a punitive exercise. The issues of privacy, limitations of determining abuse or dependence, availability of treatment, and the impact on the caseworker/client should also be carefully considered and addressed before implementing drug-testing processes.

4.7 Other drug-testing contexts

Throughout the literature search, drug-testing in the workplace was commonly cited. In the absence of further research regarding parental drug-testing, and to provide a wider context to understand the value of drug-testing, a review of workplace drug-testing was undertaken. (See appendix for more details.) Topics covered included prevalence or extent of testing, types of testing, industry-specific testing, and the usefulness of testing. We were also able to

make some comparisons between workplace competence and parenting ability, such as demonstrating effective and proficient cognitive, psychomotor and perceptual skills.

The evidence suggested workplace drug-testing, as a broad sweep approach to drug use in the workplace, has not consistently been found to be useful and is best used in the context of additional supports to provide treatment for drug problems. To apply this approach to parental drug-testing in child protection, drug-testing would be utilized on a case-by-case basis, upon reasonable suspicion of problematic drug dependence, and where drug-testing is used to facilitate entry into treatment and assist in the rehabilitation process. The benefits of exploring performance-based assessments as an alternative to drug-testing in the workplace could also be applied in child protection: identifying areas for improvement in parenting abilities and training parents to better manage these areas. As work-related skills may be affected by drug use in the workplace, it is important to consider they may also be caused by a range of other issues (e.g. family conflict, domestic violence, mental health issues), which could equally apply to parenting and child protection.

5. DRUG-TESTING MODES: WHICH ARE THE MOST RELIABLE AND COST-EFFECTIVE?

5.1 Overview

The most widely used modes of drug-testing in Australia are via urine, blood, hair and saliva, involving either onsite screening or laboratory testing. Terms such as urinalysis (or urine testing) and hair testing simply describe the 'methods used to determine if any given drug or its metabolites are present in a sample' (Ward, Mattick & Hall 1998). Levels of substances exceeding a national standard cut-off mark are considered 'positive'; however, it should be noted that 'the determination of drug use through biological analysis is never absolute' and numerous factors may influence the result (Rouen, Dolan & Kimber 2001), especially as negative results cannot rule out drug use.

Results may be affected by several factors associated with the person tested (i.e. metabolism), the drug used (i.e. route of administration), the sample taken (i.e. window of detection), the collection procedure (i.e. testing schedule) and the analytical procedure. Consequently, there are four possible results of a drug-test which must be considered: (i) a *true-positive* result, where a test correctly identifies the presence of a drug; (ii) a *false-positive* result, when a drug is detected by a test when, in fact, that drug is not present in the sample; (iii) a *true-negative* result, where a test correctly identifies the absence of a drug; and (iv) a *false-negative* result, when no drug is detected by a test when, in fact, a drug is present in the sample. There is also information associated with drug use that cannot be determined by biological analysis, such as quantity of drug used (i.e. dose administered), frequency of use, and the extent of physical or psychological dependency (Rouen, Dolan & Kimber 2001). Having said that, the testing of urine, blood, saliva or hair samples for an illicit drug or drug metabolites is an accepted and valid method of assessing whether an individual has used a substance recently.

5.2 Urine testing or urinalysis

The process: The person being tested should provide a minimum of 60ml of urine and be observed, or if not observed, the specimen jar should use a heat strip. This heat strip technology allows checking that the temperature of the sample is within the expected range of 33°-38°C (body temperature), which assists in detecting if a sample has been substituted. Detailed guidelines on the procedure can be found in the *Recommended practice for the collection, detection and quantification of drugs of abuse in urine* (Standards Australia AS4308-1995, 1995). Urine testing may be conducted onsite using screening devices; however, positive test results should be sent to an accredited laboratory for confirmation and/or quantification (testing amount of drug in urine), using different analysis techniques such as gas chromatography (GC) or mass spectroscopy (MS).

Advantages & disadvantages: According to Rouen, Dolan & Kimber (2001) the advantages of this method include the availability of accredited laboratories with facilities and expertise in Australia, the relative ease of acquiring a sufficient amount of urine (to make confirmation

testing or sample retesting simple), parent drugs and/or metabolites occur in higher concentrations than other types of biological samples (making laboratory analysis a simpler process than other mediums), and good on-site test kits are available (making screening a relatively quick process). The disadvantages of collection of urine samples, and of urinalysis itself, include: the risk of infection of the collector from exposure to body fluids; the relatively short window of detection compared to hair (one to three days for most drugs before the drug metabolite is no longer detectable); urine collection is relatively invasive and often reported to be humiliating for the person being tested and the observer; and on-site test kits are often more expensive than laboratory tests. Ward, Mattick & Hall (1992) also add that urinalysis (as may be the case with other drug-testing practices) implies distrust between caseworker/patient or employer/employee and may have a detrimental effect on that relationship, particularly in a rehabilitation setting. This issue is discussed further later (see pages 22 and 24).

Reliability & validity: Urinalysis has been criticised for being relatively inaccurate, as the possibility of false negatives is quite high (i.e. no drug detected when a drug has been used recently). This false negative problem has been attributed to the insensitivity of the tests used, the short half-life of many of the drugs being tested for and the proven unreliability of some laboratories (Ward, Mattick & Hall 1992).

Cost: Costs of on-site urine tests vary between $5-15 for one drug, to between $15-30 for multiple tests (5-7 drugs) (Rouen, Dolan & Kimber 2001). The costs for laboratory urinalysis range from approximately $25 to $50. (Some laboratories may have additional charges of approximately $50 per drug class for confirmation testing.)

5.3 Hair testing

The process: Hair grows an average of approximately one centimeter per month (Dolan, Rouen & Kimber 2004). Drugs may enter hair in one of three ways: via cells within the hair follicle, via blood and body secretions (e.g. sweat) or via external environmental sources (Wennig 2000). DuPont and Baumgartner (1995) describe the process as 'cutting a small quantity of hair as close as possible to the scalp with scissors and placing the sample in a standardized, secure collection envelope'. The sample need be no thicker than a matchstick, (10-20mgs) and is not cosmetically noticeable. Hair samples can be clumped into various lengths, since the length of the hair corresponds to the length of the previous time period during which drug use may have occurred. That is, the segment of hair closest to the scalp reflects more recent drug use. As such, different length hairs can be clumped together to test for possible drug use within the previous 1 to 6 months. The analysis system used in urine testing is also used in hair testing (DuPont and Baumgartner 1995). The sampling procedure is standardised and prepared collection kits are usually used to maintain the sample integrity (i.e. to keep the hair together in one tight, intact bundle and labeled).

Advantages & disadvantages: The main advantage of hair analysis is a longer window of drug detection compared with blood, saliva or urine, as the drug and metabolites are kept in a

stable manner and are not excreted. Other advantages include the ability to observe an individual's changes in drug use over time, including a retrospective analysis, a relatively non-invasive collection process, the ease of storing and shipping specimens, very low risk for disease transmission in the handling of samples and the general ease of obtaining sufficient hair for confirmation testing or re-analysis (Rouen, Dolan & Kimber 2001).

The main disadvantage is that hair analysis cannot be used to determine levels of drug use, a problem shared by other methods, especially urine testing. Hair analysis also cannot detect drug use within the previous seven days because of its slow growth rate. The complexity of the processes by which drug traces become integrated into hair also make accurate and reliable interpretation difficult. There are also relatively few laboratories that offer hair testing analysis in comparison to urine testing. Additional problems are that it is generally not possible to use hair analysis to reliably detect very low levels of drug use (i.e. 2 to 3 times per month) and hair growth rates differ between individuals. The former problem may not be a major issue in that low level drug use is less likely to impact on parenting ability than regular, dependent use patterns.

Reliability & validity: As more frequent use is of particular interest in the context of child protection, hair analysis may have some potential in providing a history of use within previous months. However, as hair analysis is a relatively new procedure, several concerns have been raised regarding reliability and validity. There has been suggestion that passive inhalation or external contamination can result in false positives; however, this would only apply to smoked substances and can be overcome by adjusting cut-off levels and washing hair (thoroughly) prior to analysis (Kidwell, Lee & DeLauder 2000, Wennig 2000). Variability in growth rates may also affect results; however, variability can be reduced by cutting all samples from the same region of the head (just below the crown). There is also the suggestion that different coloured hair types incorporate drugs into hair differently. While it has been proven that dark hair can take up more of some drugs than fair hair, the differences are very small and studies have found no significant relationship between hair colour and likelihood to test positive (Borges et al. 2001, Mieczkowski & Kruger 2001). As hair testing in the workplace is becoming increasingly common in the US, these issues have been addressed and procedures modified to account for these concerns, resulting in a valid standardized process. Comparatively, these issues are no greater threats to validity than already exist in urinalysis and, as such, hair analysis is a viable and effective method for determining the use of illicit drugs.

Cost: Costs of laboratory hair testing is approximately $50 to screen five classes of drugs (e.g. opioids, amphetamine, cannabis/THC, cocaine, and benzodiazepines), with confirmation testing costing an additional $150 per drug class (i.e. opioids and cocaine confirmation in hair would be 2 x $150 = $300). With increased volume of samples, the financial costs would decrease. Screening of hair for the five classes would suffice for most cases; however, in the context of a court proceeding, confirmation testing would be appropriate and probably necessary. However, such confirmation testing would normally only be required in the context of a court process. Additionally, the hair sample can be kept for future analysis should confirmation be required. Therefore, the confirmation testing remains an option that

does not need to be undertaken unless circumstances require increased confidence for a legal process.

5.4 Blood testing

The process: Most blood tests are taken from a vein, usually from those in the forearm. A cord is tied around the upper arm to make the vein more prominent. The site of the injection is then cleaned with spirit and a needle is put into the vein, where blood is drawn back by either a plunger or low pressure blood test bottle. Once the sample is extracted, the needle is removed and light pressure is applied to the wound for approximately one to two minutes with a ball of cotton wool.

Advantages & disadvantages: Blood testing may be considered the best indicator of intoxication and impairment as it can determine the amount of a drug in the blood at a specific point in time and, therefore, may be most useful in determining use relating to a specific episode or event (i.e. incident of abuse). The disadvantages of blood testing include a narrow detection window (24hrs), laboratory analysis is required (as opposed to onsite screening), and collection is highly intrusive and involves health risks to both the person being tested and the collector (Pidd 2002).

Reliability & validity: Blood tests are very reliable as there is no chance of adulteration of the sample.

Cost: A screen for five drug classes costs approximately $50, with confirmation testing costing an additional $150 per drug class. (Collection of samples may also attract some cost if a pathologist is required to attend.)

5.5 Saliva testing

The process: Donors are required to provide a sample by placing an absorbent collector in the mouth, or touching it on their tongue. Donors are not allowed to eat, drink, brush teeth or floss before providing a sample.

Advantages & disadvantages: The major advantages of saliva testing include: the easy collection process, being less invasive and less objectionable than urine or blood testing, little training is required in the collection and handling of saliva when using a commercial saliva collection device; the drug is usually present in higher concentrations compared to urine (often allowing more confident drug identification); and saliva is useful when information is required only about recent use. The major disadvantages include: analysis of drug concentrations are limited to categorical (yes/no) identification of recent use, there is a small window of drug detection (compared to other specimens), and supervision of the donor is required for at least 10 minutes prior to sampling to ensure against adulteration via drinking, rinsing or adding substances to the mouth (Rouen, Dolan & Kimber 2001).

Reliability & validity: Adulteration may be possible by drinking, rinsing or adding substances to the mouth.

Cost: On-site testing devices range widely in prices; however, tests may be purchased for $40 to $50 to screen three to four drug classes. Laboratory screening (five drug classes) costs $50 and confirmation testing can only be done for amphetamines and cannabis at this stage for $375 per specimen.

5.6 Summary

The use of regular frequent urine testing, which is best conducted on a random basis (i.e. the test is not forewarned to the parent), is a preferred method, but it is expensive when testing over long periods. Less expensive is hair testing, as hair can be easily harvested and analysed for a long observation window.

6. ASPECTS OF DRUG-TESTING

6.1 Overview

To further expand on some of the justifications for and specific questions regarding parental drug-testing, the following issues were explored: the role of drug-testing in motivation to change drug use (including motivational interviewing), the potential of drug-testing as an intervention, and the effects of voluntary versus involuntary drug-testing (including the impact on the therapeutic alliance between caseworker and client).

6.2 Can parental drug-testing be used to motivate change?

It is pertinent to note that research indicates that the use of drug-testing does not reliably reduce drug use (e.g. Ward, Mattick & Hall 1998), especially if the outcome is punitive. Ward, Mattick and Hall (1998) found drug-testing in the methadone-maintenance program did not make any difference to actual drug use. However, there is research to show that benefits (e.g. take-home doses of methadone) contingent on drug-free urine samples do increase the rate of drug-free samples. As a reward system, this approach has been well evaluated and shown to be effective. The evidence from workplace programs is inconsistent with some studies reporting drug-testing improving performance and reducing workplace injuries, whilst others find no changes to performance or incidence of drug use.

Motivation or readiness to change is an important mediating variable in treatment outcomes (Shand, Gates, Fawcett & Mattick 2003). The majority of literature surrounding parental drug-testing is from the US, where there is a heavy focus on abstaining from use, with clear consequences of failing to do so. In this context, the literature regarding the family drug courts suggests parental drug-testing is a strong motivator to abstain from drug use (Wolf 2000, Newmark 1995), although it may be that the threat of losing parental rights is the primary motivating factor, not the drug-testing per se. While drug-testing may be used to encourage the user to think about their own use, or as a first stage in motivating towards changing their parenting style and/or seeking treatment, other techniques such as motivational interviewing may be of greater influence and provide a more therapeutic context.

Motivational interviewing has been shown to increase attendance rates in treatment. In a recent US study of substance abusing parents referred by child welfare workers, clinicians used either a standard evaluation or an evaluation enhanced by motivational interviewing techniques, with positive results: 59% of participants receiving motivational interviewing attended at least one treatment session, compared with 29% of those receiving the standard evaluation (Carroll et al. 2001). As part of their evaluation, all participants were drug-tested (among collection of other information), suggesting that drug-testing was not an influential factor in motivation for change. Other sources suggest that a positive 'therapeutic alliance' between the caseworker and the client has more influence on treatment completion than other factors such as dose or addiction severity (Ward, Mattick & Hall 1998, Dale & Marsh

2000, Ashton & Witton 2004). It is also important to note that parents may be at varying stages of motivation to change, in terms of recognizing problematic drug seeking behaviours and their readiness and willingness to change these behaviours. The relative stage of the parent should be considered in tailoring the best approach to support entry and maintenance in treatment.

Summary. The evidence to support the effectiveness of drug-testing in motivating change is, at this stage, small or anecdotal (Fraser 2001, Newmark 1995, Wolf 2000). Testing per se would not necessarily lead to a better treatment outcome for either parent or the child (Famularo et al. 1988). However, when used in conjunction with supportive staff (Ward, Mattick & Hall 1998, Dale & Marsh 2000, Ashton & Witton 2004), appropriate motivating techniques (Carroll et al. 2001), and linked to treatment, drug-testing may be beneficial, as involvement in quality treatment will, on average, reduce drug use problems.

6.3 Is drug-testing an intervention on its own?

In Newmark's (1995) study, the positive effects of monitoring drug use through drug-testing were listed as:

- more frequent court hearings over a shorter time, and shorter overall case processing time;
- more placements with the primary caregiver or other family members and fewer in foster homes or institutions;
- more service referrals received for drug treatment, child-oriented services to caregivers, and housing and other basic needs;
- visitation rights granted, as well as revoked or denied, suggesting greater monitoring of visitation;
- co-operation with referrals for diagnostic services.

Fraser found random drug-testing was associated with decreased positive urine results (1998a, 2001) and was a deterrent to drug use, as 30% of clients consistently tested negative for 6-12 months, with the support of social workers (1998b). In the absence of further research, it seems more likely drug-testing is better utilized in the context of accessing services. The objective of drug-testing is to identify drug metabolites in the samples provided. It would appear drug-testing alone may have little influence in the long-term as an intervention, but offers a window of opportunity for accessing treatment. The evidence about the role of drug-testing itself is limited, but without active pharmacological or psychological intervention with the drug-testing it seems unlikely that there would be marked benefit from testing alone.

6.4 Is drug-testing equally reliable under voluntary and involuntary circumstances?

The reliability of the actual drug-test does not change; however, the motivations and actions of the drug user might. There may be some increased motivation for the person being tested to tamper with some aspect of the testing process under involuntary circumstances (i.e. using masking agents). As such, precautions to avoid adulteration or substitution should be taken.

The impact of involuntary drug-testing on the 'therapeutic alliance' between caseworker and client has not been well documented. Whilst resistance to drug abuse treatment has been explored (Boyle et al. 2000), resistance to drug-testing has predominantly been explored in the context of attitudes towards drug-testing in the workplace and sport. In the absence of research into the impact of drug-testing on therapeutic relationships, it would be worth considering the purpose of the drug-test. It can be assumed that testing purely to provide evidence of drug-use in a court order, with clear consequences of losing custody of the child, may be perceived differently to testing to assist in receiving treatment, which may also be perceived differently to ongoing testing to ensure abstinence after treatment. Where the client perceives the consequences as being threatening to their situation, one would expect greater resistance; however, by engaging the parent in the rehabilitation process and referring into treatment (prior to receiving a court order), drug-testing may be less detrimental on the caseworker/client relationship.

The NSW Drug Court situation is a useful recent example of a situation where the collection of urine by case workers was resisted and an alternative method set up. The NSW Drug Court was established in 1998 to deal with drug dependent offenders using integrated drug treatment services and intensive supervision including frequent urine-testing, a system of graduated sanctions and rewards in response to compliance. Urine collection was undertaken briefly by probation and parole officers; however, case managers reported 'watching clients do a urine' in their home was detrimental to forming a relationship with them. To overcome these difficulties, a dedicated nurse was employed to supervise urine testing (Taplin 2002). This approach may be applied to the child protection context, by employing a dedicated person ('third party') other than the caseworker to assist and co-ordinate the collection of urine/hair.

Training staff in recognizing stages of motivation to change behaviour and motivational interviewing techniques may assist in working with clients who seem unwilling to be tested. As all drug-testing is to some extent coercive and no drug-test truly involuntary, careful consideration should always be given in deciding whether drug-testing is absolutely necessary and whether drug-use can be established by other means.

7. ALTERNATIVE OPTIONS TO DRUG-TESTING

7.1 Self-report tools

There are alternatives to drug-testing, which generally include screening instruments, interviews and observations (Dawe et al. 2002). When utilizing self-reports for illicit drug use, the validity and reliability of self-report may be poor, due to the illegal nature of this stigmatized behaviour. This is accentuated when the sanctions applied to self-reporting drug use are loss of children to care. A recent study of pregnant women who used illicit drugs during their pregnancy supports this by showing that, although the denial rate was high for both cocaine and opiate use, positive hair results were obtained (Ostrea et al. 2001). Despite issues of validity and reliability, self-report tools may still provide useful information and the opportunity for clients and caseworkers to build rapport. In the context of parental substance abuse in child protection, measures should assess both drug use and risk of harm to the child, although identification of drug use does not necessarily equate to child abuse or neglect. The HEARTH assessment tool attempts to link both, and may be useful in assessing and enhancing motivation to change, whilst evaluating impact of drug use on the child.

HEARTH assessment

The HEARTH assessment tool is designed to be used in an office or home setting, between caseworker and client together, in evaluating the relationship between substance use and the welfare of the child (Dale & Marsh 2000). The responses to 18 questions are worked through together and take about one hour to complete. Completion of the questionnaire can be complemented by observation of family interaction, if the client is accompanied by their children. Some level of engagement between caseworker and client is assumed, and accuracy is largely dependent on the honesty of the client. Factors considered include safety of the child and the parent's ability to respond to needs of the child. As this tool has not been tested as an accurate indicator of drug use or risk to the child, it is recommended the sensitivity and specificity of the HEARTH assessment tool is tested in further research.

CAGE questionnaire (Mayfield et al. 1974)

The CAGE questionnaire has been referred to in the US literature as a useful screening tool in child protection. It is a simple set of four questions originally used to measure alcohol use, which have been amended for drug use:

- Have you ever felt the need to CUT down on your drinking or drug use?
- Have you ever felt ANNOYED by people criticizing your drinking or drug use?
- Have you ever felt bad or GUILTY about your drinking or drug use?
- Have you ever had a drink or used a drug first thing in the morning to steady your nerves or get rid of a hangover? (EYE-OPENER)

If the answer is 'yes' to one or more questions, the parent should receive a formal alcohol and drug assessment. 'Yes' to one or two questions may indicate alcohol- and drug-related

problems. 'Yes' to three or four questions may indicate alcohol or drug dependence (Breshears et al. 2004). Given the length of the questionnaire, CAGE has the potential to be used by child welfare workers easily in the field; however, it provides no specific assessment of the risk of abuse or neglect of children.

Chemical Use, Abuse and Dependence Scale (CUAD) (McGovern & Morrison 1992)

This scale uses a structured questionnaire and is primarily concerned with severity and diagnosis of substance use, abuse or dependence, and has the potential to be quite brief, depending on number of substances used. Advantages of this tool include the ability to identify polydrug users and the potential it offers to match clients to specific types of treatment most likely to be effective for them. As this tool focuses on drug use, rather than child welfare, it may be best incorporated into current assessment practices if polydrug use is suspected and there is an opportunity to refer into treatment; however, as the application of CUAD in child protection has not been well documented, further research into the utility of this screening tool is recommended.

Each of these instruments has the potential to be used in a simple assessment or 'screening'. They differ from standardized tools, in that they do not provide in-depth information regarding drug use; however, they may indicate problematic drug use and identify the need for further referral. As mentioned previously, the disadvantage of these types of assessments is that there may be a major disincentive to honest responses in the context of child protection, where custody of children may potentially be determined by the results.

Standardised assessment tools include the Drug Abuse Screening Test (DAST), Personal Experience Screening Questionnaire (PESQ), and the Drug Use Screening Inventory (DUSI); however, these are highly comprehensive tools, and are more appropriate as secondary assessment tools rather than screening instruments (Dawe et al. 2002). The DSM IV is the preferred psychiatric diagnostic system for assessing the presence of mental health disorders including substance abuse and dependence.

There is no standardized system to determine the presence or absence of substance use affected parenting via clinical observation, although there are parent-child attachment observation techniques which may be modified (Vallance 2004). In-home observations of paraphernalia (syringes, charred spoons, pipes, foils) may also provide some information regarding drug involvement.

Family members and significant others may be interviewed to establish or verify a parent's substance use. Also, inquiring about family history of addiction may be useful: if the parent had a problematic drug using parent themselves, they may be more likely to seek treatment (Dore, Doris & Wright 1995). External sources may also be useful, such as police, GPs, employers or work colleagues, to establish the extent of substance use, although privacy

issues would need to be carefully considered. Similar issues of validity and reliability may also apply when using significant others to establish or verify drug use.

Summary

As child protection authorities have a responsibility to assess the risk to the child, determining parental drug use should be secondary to this first and primary objective. However, should drug use be suspected to be putting the child at increased risk, alternatives to drug-testing, such as self-report assessments, have the potential to provide valuable information to caseworkers. Despite issues of validity and reliability, interviewing provides an opportunity to build rapport and discuss drug use. When speaking with family members or significant others, the rapport built here may further enhance the opportunity to influence a parent into treatment, if necessary. At present, the HEARTH assessment tool is unique in its combination of assessing drug use and its impact on the welfare of the child; however, further research into its sensitivity and specificity would be beneficial. There may also be some merit in exploring the strengths of alternatives such as CAGE and CUAD, to further develop the HEARTH assessment tool.

7.2 Clinical indicators of drug use and supportive detection of drug use

Illicit drug use will affect people differently, depending on several factors, including the purity/potency of specific substance used (e.g. the percent purity of heroin, cocaine or amphetamine can vary from quite low up to 80-90 percent pure, and cannabis varies in THC content); the frequency of use (weekly or less frequent use, daily use, or use several times daily, or use many times daily); the amount taken; the duration of time since last use; and the tolerance of the user to drug effects (regular use leads to tolerance). However, overall, there are a number of marked effects for each drug class and caseworkers can readily be trained to know and identify the specific indicators of drug use which might raise the index of suspicion and lead to calls for a drug-test. The signs of recent use associated with the more commonly used illicit drugs are listed below for illustrative purposes and are well articulated in the broadly accepted diagnostic systems such as the American Psychiatric Association DSM-IV or the World Health Organization International Classification of Diseases. A more formalized and detailed list and methods of observation could easily be constructed for proper training.

Opioid intoxication and withdrawal

Opioid intoxication, including heroin (actually diacetylmorphine) and methadone injection, shows itself as a virtually immediate state of intoxication which is associated with an obvious initial euphoria followed by apathy, dysphoria, agitation or slowed actions, impaired judgement, and impaired functioning. During or shortly after heroin use there is also evidence of very marked pupil constriction ('pinpoint' pupils), slurred speech, drowsiness ('being on the nod' where the users will literally nod-off in front of the observer) and impaired attention or memory so that the person will have difficulty interacting coherently. These signs are quite distinct and obvious to an alert observer, although they may be only

perceived as a state of drowsiness or tiredness to the less aware observer. Patients in a prescribed methadone or buprenorphine maintenance treatment will not normally be observed to be obviously affected by these medications as stable regular dosing with these drugs overcomes intoxication or withdrawal effects.

Heroin withdrawal and other opioid withdrawal (from methadone) are also associated with distinct and observable withdrawal signs, which are dependent on the half-life of the drug, but are observable. Cessation or reduction in use will be associated with nausea, vomiting, runny nose or tear production (an influenza like phenomenon), marked pupillary dilatation, goose bumps (hence the term 'cold turkey' with reference to sudden cessation), yawning and dysphoria, and there are marked complaints of muscle aches and insomnia.

Sedative intoxication and withdrawal

Sedative use is prevalent among injecting drug users to offset the effects of stimulant withdrawal and opioid withdrawal. Excessive use leads to diminished motor coordination, slurred speech and unsteady gait. Withdrawal is associated with sweating and increased pulse rate and blood pressure, tremor, complaints of insomnia, agitation, anxiety and in some rare cases epileptic seizure and hallucinations.

Cannabis intoxication and withdrawal

Cannabis use is quite prevalent among marginalized and younger groups in Australia. Use to a level of intoxication is associated with diminished motor coordination, euphoria, impaired judgement and social withdrawal that develop in an obvious fashion during and shortly after use. Later there can be obvious increased appetite ('the munchies'), dry mouth and tachycardia. There is a less marked and less easily observable withdrawal syndrome, apart from irritability, making cessation of recent use less easy to identify.

Cocaine and other psychostimulant intoxication and withdrawal

Cocaine and amphetamines have become frequently used drugs in Sydney and regional NSW respectively. They often produce similar effects soon after use including a sense of confidence and euphoria, with evidence of increased sociability or talkativeness, a hypervigilant state, with increased interpersonal sensitivity, sometimes evidence of anxiety/tension or anger, agitation or restlessness, as well as markedly impaired judgement or social/occupational functioning. Changes in heart rate, pupillary dilatation, changes in blood pressure, perspiration or chills, nausea or vomiting, evidence of weight loss and loss of appetite, and more serious health effects may be observed, although some of these latter changes will be less obvious to the observer. Withdrawal from cocaine use shows as a period of marked fatigue and slowed psychomotor activity, although agitation can occur. Sleep disturbance (hypersomnia or insomnia) also is a feature of withdrawal along with vivid dreams, with a dysphoric state.

Injecting drug use

'Track marks', or evidence of recent injection, is observable by looking for puncture marks or scars and may indicate the person is currently injecting. Injection equipment (needles and syringes, spoons, filters, etc.) can be observed in the homes of regular users.

Abuse and dependence

The distinction between use, abuse and dependence should be made and again is a clinically useful tool in the observation of users. The DSM-IV (American Psychiatric Association 1994) is the preferred diagnostic tool by most clinicians in determining the type of drug misuse. Subtle visual indicators such as specific health problems or impaired social functioning may suggest the presence of parental substance abuse and may be easily overlooked when using a general risk assessment (Dore, Doris & Wright 1995). Therefore, where there is reasonable suspicion, further assessment should be made. Clinical indicators and assessment tools may assist in deciding which treatment option best suits the client, assist in providing feedback to the client about his/her own drug use and facilitate referral to appropriate treatment.

Summary

Whilst observation alone cannot accurately determine drug use, there are certainly indicators which may assist caseworkers to identify drug use and lead to further enquiry. As such, observation would not be recommended as an alternative to self-report assessment or drug-testing, but rather a complimentary method of assessment able to be used by trained caseworkers to further enhance their risk to the child evaluations.

8. BEST PRACTICE MODEL OF DRUG-TESTING IN THE CONTEXT OF CHILD PROTECTION

Overview

In order to establish a best practice model, the following issues have been considered: method of testing, frequency of testing, who should conduct testing.

8.1 Which method of drug-testing?

To determine intoxication in a very recent period (2 to 3 days), urine testing would be the most appropriate method of drug-testing. This may be appropriate in regards to a specific recent event or incident. In the case of on-going monitoring of parental drug use, either randomized two or three times weekly urine testing or collection of hair samples once every three to six months would be more appropriate.

Compared to other methods, hair testing is the least invasive and detects drug use over a longer period of time. In circumstances where on-going monitoring is necessary, hair-testing would be considered good practice, and the most cost-effective method. The convenience and relative ease of the collection of hair may prove particularly beneficial to child protection services. Hair testing is currently used in several contexts including the workplace, courts (sexual assault cases) and general practice, although at this stage it is not common practice in drug treatment agencies. Alternatively, urine testing on a randomized weekly or more often schedule may also be considered good practice, providing the advantage of increased contact with the client, which may allow greater opportunity for intervention. As outlined previously, it may be prudent to consider the use of a third party (other than the caseworker) to undertake the collection of samples to avoid any negative effects on the therapeutic alliance between caseworker and client.

As a screening approach, saliva testing has some merit for ease of collection and non-invasiveness; however, as the window of detection is quite small and chance of adulteration is quite high, saliva testing holds no more advantages than urine testing, for the purposes of parental drug-testing. Given the highly intrusive method of collection of blood and small window of detection in both blood and saliva, these are both unlikely to be useful methods of drug-testing in the context of child protection, other than in an acute situation where a blood sample is drawn immediately following the event.

8.2 How frequently should testing be carried out?

The appropriate schedule for obtaining samples is dependent on testing method chosen and specific purpose for testing. Most notably, the different methods outlined above have varying drug detection windows. As hair and urine testing seem the most viable options, we will ignore the use of saliva, blood or sweat.

Urine testing frequency

Given the half-life (time taken for 50% of the drug to be removed from the body) of most illicit drugs, the detection period for most substances is approximately 2-3 days, with a longer period for THC (up to 10 or more days, depending on frequency and amount of cannabis used). Therefore, for urine testing to effectively detect drug use, testing would need to be carried out 2 to 3 times a week (Swan 1995). To further increase reliability, 'every sample should be taken at a time unknown to the patient concerned and should be observed, or the temperature of the sample taken, to ensure that it is not tampered with in any way. If these two conditions are not met, then testing is a waste of time and money' (Ward, Mattick & Hall 1992). Notably, the Washington D.C. study collected urines weekly on a fixed schedule known to the parent (Newmark 1995), whereas the Canadian approach was thrice weekly collections carried out by a nurse who went to the parental home and observed the provision of the urine sample. Obviously, practices vary across settings and needs, but less than weekly testing seems to be unhelpful, especially if there is a significant level of non-compliance (i.e. non-attendance) at the testing facility.

Hair testing frequency

Hair is easily collected, requiring relatively little expertise. It could be collected by trained case managers, but if this was not deemed appropriate then attendance to any pathology laboratory acquainted with the required procedure and provided with an inexpensive collection foil and envelope can be easily carried out. Hair samples could be collected at one, two or three monthly intervals and analysed in sections, depending on need.

8.3 What are the detection times for particular drugs?

Detection periods differ between different drugs and different testing methods. Substances may be found in urine within a few hours and are detectable for: amphetamines 2 to 4 days, cocaine 2 to 3 days, opiates 2 to 3 days, cannabis 2 to 10 days for casual use, up to 30 days for heavy use, and benzodiazepines vary widely in their detection times but are generally detectable between 2 days to 2 weeks (McGregor & Makkai 2003). It should be noted that detection periods may be influenced by factors including the dose (amount taken), route of administration, acute versus chronic use, the analytic technique and individual variation in metabolism (Verstraete 2004). As mentioned previously, hair detects general drug use in the past months, according to distance from the scalp, where the hair closest represents the most recent drug use. Polydrug use is unlikely to significantly affect detection periods; however, changes in metabolism may occur in either direction.

8.4 Who should conduct testing?

The provision of a urine sample should be observed by a clinician or a pathology nurse, to reduce possibility of contamination and/or substitution, and to deal with the occupational health and safety issues raised by case managers. There are no other suitable personal to supervise the provision of a urine sample. Hair testing, as mentioned previously, may be collected by anyone trained in collection procedures, not necessarily a physician.

8.5 Over what duration should testing be carried out to establish a person is drug free?

This is dependent on the history of substance use. For chronic dependent users, long-term testing (up to several years) would be appropriate, due to likelihood of relapse. For people who are less dependent, short-term testing of approximately 6 months may suffice. The history of use would best determine the most appropriate length of testing, although no set length of time can determine whether the user will not relapse in the future (Ward, Hall & Mattick 1999).

Summary

It is important to consider the purpose of drug-testing (i.e. monitoring drug use/abstinence or detecting recent intoxication) before deciding what best practice is. Both urine and hair testing offer, under optimum conditions, good reliability and validity and are considered good practice for assessing the extent of ongoing illicit drug use given the context of parental drug use. Given the evidence (albeit limited) on the role of drug-testing assisting in management of parents with problematic drug use patterns and children at risk, hair testing seems to be a viable, unobtrusive and useful tool in determining use over longer periods, whereas urine testing would be more appropriate in determining more recent use.

9. DRUG USE AND TREATMENT

9.1 What are the treatment modalities available (range of options)?

Overview

Australia currently has a reasonable and generally accessible range of treatment options available for people with drug and alcohol problems (Teesson, Degenhardt & Hall 2002). Family orientated services may be able to offer additional assistance in improving parenting skills, whilst addressing the issue of drug use; however, few of these specialized services currently exist. At present, services may consist of one or more of the following: detoxification, pharmacotherapies, residential care, outpatient counseling, and self-help. In terms of effectiveness overall, evidence suggests the longer a client remains in treatment, the better the outcome. As evidenced by the first large scale examination of addiction treatment outcomes in Australia, engagement in treatments has been shown to have several positive outcomes, including decreased drug use. (For a more detailed review regarding treatment options and the Australian Treatment Outcome Study, please refer to Dale & Marsh 2000 and Teesson et al. 2003.)

Detoxification refers to the process by which a drug or alcohol dependant person recovers from intoxication in a supervised manner, so that withdrawal symptoms are minimized (Heather & Tebbutt 1989). As a component of treatment on an inpatient/residential or an outpatient (ambulatory or else home-based) basis, detoxification is available in all areas of NSW with better access in urban areas. Detoxification facilities have reduced in number and in bed capacity over the past 15 years, with a corresponding increase in outpatient detoxification as a more cost-efficient and effective means of treatment delivery. However, detoxification is an available treatment option generally, with the usual caveats associated with accessing any health service. Detoxification may be with or without medication, depending on the severity of dependence and/or client choice. Clients may not wish to detoxify from all substances at once (Dale & Marsh 2000).

Mattick & Hall suggest three factors may influence detoxification outcomes: the individual's motivation for undertaking detoxification, the choice of available methods, and the reason for detoxification (cited in Dale & Marsh 2000). It is important to note, however, that detoxification should not be regarded as an independent treatment for dependence, nor should the effectiveness of detoxification be measured by achieving abstinence. Rather, detoxification is more appropriately regarded as 'a process that aims to achieve a safe and humane withdrawal from a drug of dependence' (Mattick & Hall 1996), and should be used as a gateway to further treatment.

Treatment in a residential facility or a therapeutic community usually involves clients living at the facility for three to 12 months, where the aim is abstinence and personal growth, aided by the understanding and care of others in the community. Most facilities do not cater for children, although there are a few specialist facilities that do cater to mothers with young

children who can live on site. Residential care is usually kept for those who are typically worse off in terms of health and drug problems (i.e. lack of social support, severe dependence) than those who enter non-residential care.

Therapeutic communities or residential facilities have been shown to be successful at reducing heroin use and crime among those who remain in treatment long enough to benefit (at least three months); however, there is some evidence therapeutic communities may be more effective if they are used in combination with legal coercion or during imprisonment to ensure users are retained in treatment (Teesson et al. 2003, Teesson et al. 2002).

Out-patient drug counselling and cognitive-behavioural therapy (CBT) aims to teach individuals how to control their responses to their environment through improving social, coping and problem-solving skills (Teesson et al. 2002). These are available and reasonably effective interventions for cannabis and psychostimulant problems (Copeland et al. 2001, Baker et al. 2004), but they are less effective for entrenched dependent opioid use (Ward Mattick and Hall, 1998).

Pharmacotherapies for opioid dependence (i.e. methadone, buprenorphine and naltrexone) are readily available. They are effective methods to manage opiate dependence, being associated with reduced heroin use, improved psychosocial functioning and better physical and psychological health and reduced mortality (Mattick et al. 2004).

As the major form of treatment for opiate dependence in Australia, methadone-maintenance treatment has been demonstrated to be effective by reductions in heroin use, infectious disease transmission, damage to veins and skin infections, criminal activity, psychological problems, and social problems. As mentioned previously, it is often the case where the longer a client stays in treatment, the more positive the outcomes. Whilst this also applies to methadone-maintenance, there is no specifiable optimal duration for methadone-maintenance treatment (Ward et al. 1998). The most appropriate duration of treatment may be several months to years, depending on individual circumstances and client behaviour. (For more detailed information regarding this treatment, see Ward, Mattick & Hall 1998.)

The substantial expansion of the opioid pharmacotherapies program nationally and in NSW since the advent of HIV, and particularly in the 1990s until the current time, has made access to methadone, and recently buprenorphine and naltrexone, quite easy. Notably, naltrexone is not a preferred treatment option for most opioid dependent people, and has poor retention in treatment. Naltrexone is also not subsidised under the Australian Government Pharmaceutical Benefits Scheme (PBS) for the treatment of opioid dependence. (Notably, naltrexone is on the PBS for alcohol dependence and there is another pharmacotherapy, acamprosate or Campral, available for alcohol dependence treatment, expanding the treatment response for alcohol problems markedly.)

Self-help groups such as Narcotics Anonymous and Alcoholics Anonymous are also reasonably accessible organizations that provide a unique and important role in supporting those who are comfortable with the approach. By providing a social network supportive of abstinence, self-help groups may be an integral part of treatment for individuals who otherwise have little or no support. Some evidence suggests that particularly women may benefit from support groups and group counseling (Breshears et al. 2004).

Specific services may cater for certain substances or certain groups (i.e. mothers with children, homeless men, young people, indigenous people), although these services are very limited, especially in regional areas.

9.2 Are there any gender differences in rehabilitation compliance?

Most studies measuring compliance predominantly involve male patients and concern alcohol treatment. In Jarvis's meta-analysis of gender differences in outcomes after treatment for alcohol problems, the results indicated women performed better in the first 12 months after treatment, while men showed greater improvement in follow-ups after 12 months, although these differences were small (Jarvis 1992).

While there are several treatment options (residential, in-patient etc.), with different focuses (i.e. family, adolescent, women/men only, mixed), there has been much speculation as to which treatment settings are best suited to women. There is some evidence to suggest family-focused treatment for women improves retention, psychosocial functioning and parenting attitudes of pregnant and parenting women (McComish 2003). Copeland & Hall (1992) found similar results, in that women with dependent children were more than twice as likely to dropout of treatment from a service that required them to be separated from their children, than a specialist women's service providing residential childcare and parenting programs.

There is a reasonably easily available and accessible range of treatments in Australia for the management of drug dependence and abuse problems, ranging from detoxification, residential care, pharmacotherapies and counseling, plus a range of specific services for certain drug types and, to a limited extent, for populations of sub-groups, such as women with children, young people, and indigenous people. By carefully assessing the needs and circumstances of the client, the most appropriate treatment may be considered ('treatment matching'); however, clients may need to explore more than one treatment approach before finding the one that works best for them.

10. CONCLUSIONS

- There is surprisingly little research on the usefulness of drug-testing in the context of child protection. However, the research that is available suggests drug-testing is a viable means of monitoring drug use levels and referral to treatment.
- Despite the application of a more broad parental drug-testing policy in child protection in the US, it is our recommendation that parental drug-testing would only be appropriate in individual circumstances where there is reasonable suspicion of substance abuse, multiple tests are undertaken over periods ranging between two to six months or more (depending on level of use), confirmation testing is undertaken on all positive results, and parents who are seeking treatment or who are found to be drug abusing/dependent are referred immediately to treatment in a supportive fashion.
- The usefulness of drug-testing in the child protection context will depend on the purpose of the testing. If testing is to determine whether a parent is drug free over a period of time, on-going random testing would appear to be low cost relative to the legal and social costs of child protection. Testing for the relationship between drug use and a specific episode (i.e. child assault) is more costly as it will involve measures of quantification (i.e. determining if the parent was intoxicated at the time), although this is still minimal relative to societal costs.
- Drug-testing should not be seen as the endpoint, rather it is best seen as trying to achieve long-term benefits through referral to treatment. This should be supported by the ability to access treatment agencies which may be limited in regional areas.
- Urinalysis and hair testing appear to be most cost-effective; however, taking into the account the opportunity for substitution, hair testing may a more reliable indicator of drug use, especially to detect drug use over a longer period of time.
- While there is no clear evidence to demonstrate that the therapeutic alliance between caseworker and client is detrimentally affected by drug-testing, anecdotal reports suggest otherwise. It may be prudent therefore to employ a dedicated person ('third party') to assist and co-ordinate collection of urine/hair.
- Although urine and to a lesser extent hair testing are invasive procedures and can be demeaning to clients, if undertaken in a supportive environment with the aim of improving child welfare through the reduction in drug use, and provided the standard of drug-testing is high, it would appear that drug-testing is a viable method to determine drug use in the child protection context.
- Alternatives to drug-testing such as clinical assessments and standardized assessment tools are less invasive. However the reliability of these measures will be reduced due to their reliance on self-report.
- Given the limited amount of existing research, it may be beneficial for future work to be undertaken to examine the relationship between substance use, parenting capacity and child protection.

- Finally, it should be noted that drug use per se is often a proxy for a range of other characteristics (e.g. poverty and isolation). Reliance purely on drug-testing may mean that other contextual factors that contribute towards child neglect or abuse are ignored. What may result is a simplistic answer to a far more complex problem.

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APPENDICES

Appendix 1: Literature review of drug-testing in the workplace

Overview

As an area already employing drug-testing, the workplace allows us to examine the relevance of drug-testing in terms of assessing competencies/skills, safety and how this impacts on those tested. Although it is very difficult to compare work and parenting competencies, there may be specific skills relevant to particular tasks that are transferable between environments (e.g. operating heavy machinery and driving with children in the car while intoxicated). Examining workplaces also allows exploration of related issues including alternatives to drug-testing and the circumstances in which drug-testing may be useful.

How common is drug-testing in the workplace?

Internationally, drug-testing in the workplace is gradually increasing in popularity. The US is the leader in workplace drug-testing countries, with 88% of US employers either testing already or with plans to test in the near future (Business Wire 2001 cited in Francis et al. 2003). In the UK, a survey of businesses found 16% were randomly testing and 14% were conducting pre-employment screening (Chartered Management Institute 2003). In comparison with other European countries, workplace drug-testing seems to be more widespread in the UK. Limited research has been conducted on the prevalence of workplace drug-testing in other parts of Europe (Verstraete & Pierce 2001); however, the literature suggests there is an increase in countries demanding workplace drug-testing services (Shahandeh & Caborn 2003, Verstraete & Pierce 2001). There is also limited literature reporting the prevalence of workplace drug-testing in Australia. In 1991, nine of the top 600 Australian companies (or about 1.5%) reported utilising drug-testing procedures (Richmond, Heather, Holt and Hu cited in Privacy Committee Paper, 1992); however, an unpublished survey reported 11.5% of Australian public and private sector organizations had some form of drug and alcohol testing programs in place (Privacy Committee of NSW 1992).

Where is it being undertaken?

With particular reference to the US, Francis, Hanley and Wray (2003) suggest the occurrence of workplace drug-testing differs according to the type of industry, and cite evidence of higher incidences of testing in industries such as manufacturing, mining, communication, public utilities and transportation (Bader & O'Hara cited in Francis et al. 2003, Zwerling cited in Francis et al. 2003, Blaze-Temple 1991). Verstraete & Peirce (2001) found the industries most commonly employing workplace drug-testing in Europe were transport, petrochemical, shipping, automobile, pharmaceutical, computers and call centres. In Australia, NSW currently includes drug-testing practices in workplaces associated with: motor vehicles, railways, prisons, defence force, law enforcement agencies, coal mining and airlines (Privacy Committee of NSW 1992).

As outlined by Coomber (2003), the answer to the question of who should be tested depends on the employer's aim of testing. The Privacy Committee of NSW (1992) recommends workplace drug-testing is 'justified only for those occupations where there are substantial and demonstrable safety concerns at stake'. In a similar vein, the US National Institute on Drug Abuse suggests that if the organisation's goal is to 'avoid work decrements (e.g. accidents, injuries, performance level) due to impairment, then research should be conducted on the utility of performance tests prior to starting work as an alternative to alcohol and other drug-tests' (Coomber 2003:9).

Competencies required

Many of the industries previously mentioned demand a high-level of competency in a number of areas that can be affected by substance use: quick reaction time, good hazard perception, the ability to use logic and reasoning in problem solving, low levels of absenteeism, the ability to communicate effectively, and proficient cognitive, psychomotor and perceptual skills. Several of these abilities could be transferable to the capacity to parent, such as being physically and emotionally available to meet a child's basic needs, having the ability to bond/attach, quick reaction times to distress/danger and the provision of a safe environment.

How is drug-testing being undertaken?

There are a number of situations and procedures for drug-testing in the workplace. Lu & Kleiner (2004) describe the following testing options: pre-employment, discretionary random testing (test at any time for any/no reason), systematic random testing (employees are selected at random to be tested), reasonable cause testing (when employer is suspicious), periodic testing (usually in connection with an annual physical examination) and post-accident (after an industrial accident). Moorland (1993 cited in Coomber 1993) additionally cites other approaches including voluntary testing and for transfers (within companies). At present, there is no 'gold standard' of workplace drug-testing, as the types of testing vary widely depending on the industry and/or the individual's circumstances.

What substances are tested for?

In NSW, drugs that may be tested for vary according to the purpose of testing, the practical limitations of the equipment being used, and the cost of testing (Privacy Committee of NSW 1992). Substances for which testing can occur include alcohol, prescription drugs (especially benzodiazepines and anti-depressants) which have abuse potential, cannabis, cocaine, amphetamines and heroin.

Arguments for and against drug-testing in the workplace

The main arguments justifying workplace drug-testing relate to three general concerns: safety, organizational efficiency (absenteeism, turnover, performance, productivity) and

employee health and welfare (Hanson 1993 cited in Coomber 2003, Francis et al. 2003, Jardine-Tweedie & Wright 1998, Macdonald 1995, Shahandeh & Caborn 2003).

The strongest argument (and perhaps the most frequently used) is for safety; however, as outlined by Shahandeh & Caborn (2003), what constitutes 'safety' is open to interpretation. Safety may be defined as employees not posing a danger to themselves, colleagues and third parties, or more broadly understood as posing a threat to the business and potentially losing revenue for the organisation, for example by making poor business decisions. There is also some argument that drug-testing is an extension of the employer's legal obligations to provide duty of care to its employees. Shahandeh & Caborn (2003) further elaborate that there is some ethical argument for testing given the illegal status of some substances. Drug-testing in this case is more likely justified as a deterrence tool, with consequences of either dismissal, discipline or some form of assistance or treatment.

The arguments against drug-testing for illicit substances are essentially that it is a breach of privacy, is invasive, is not cost-effective, has inconsistent reliability and validity, may have a negative impact on staff morale (at worse losing good staff), and the evidence that it has any effect or benefits is not conclusive (Lu & Kleiner 2004, Jardine-Tweedie & Wright 1998). In the review of the literature by Francis, Hanley and Wray (2003), there is 'some evidence that alcohol use (particularly alcohol abuse) is associated with decreased productivity and performance'; however, evidence regarding illicit drugs is less conclusive. Macdonald (1997) furthers this argument by suggesting alcohol testing is more justifiable than drug-testing, because the results of alcohol tests closely correlate with psychomotor performance, while drug-tests do not. There is also some debate surrounding the appropriateness of focusing on whether the employee uses drugs, rather than the extent to which drug use results in impairment (Jardine-Tweedie & Wright 1998).

What are the alternative methods to drug-testing in the workplace?

Jardine-Tweedie & Wright (1998) suggest alternative methods to drug-testing, such as: employee assistance programs (designed to help employees with their drug/alcohol problems), training supervisors to recognise performance problems, educating employees (to be aware of the company policy on drugs/alcohol and how use could affect performance) and performance testing (testing reaction times). In an overview of how drug-testing relates to the Australian workplace, Blaze-Temple (1992) concludes drug-testing should only be employed if also accompanied by rehabilitation and education components. Similarly, drug-testing parents should only be undertaken in an environment where there is appropriate treatment available. In the context of parenting, alternatives to drug-testing include parental education, self-report, observation, and interviewing significant others. This is discussed in further detail elsewhere (page 35).

Summary

The use of drug-testing as a broad sweep approach to drug use in the workplace has not consistently been found to be useful and is best used in the context of additional supports to

provide treatment for drug problems. To apply this approach to parental drug-testing in child protection, drug-testing would be utilized on a case-by-case basis, upon reasonable suspicion of problematic drug dependence, where drug-testing is used to facilitate entry into treatment and assist in the rehabilitation process. The benefits of exploring performance-based assessments as an alternative to drug-testing in the workplace could also be applied in child protection: identifying areas for improvement in parenting abilities and training parents to better manage these areas. As work-related skills may be affected by drug use in the workplace, it is important to consider these effects may also be caused by a range of other issues (e.g. family conflict, domestic violence, mental health issues), which could equally apply to parenting and child protection.

Appendix 2: Project Brief

AIM

To undertake a comprehensive review of the research evidence related to the efficacy of parental drug-testing in child protection, relative to alternative approaches and tools.

BACKGROUND

Drug and alcohol abuse are significant factors in reports received by the Department of Community Services (DoCS) and are acknowledged as a factor in a significant proportion of substantiated reports of abuse and neglect. DoCS 2001/02 data indicates that 27,041 (16.9%) of reports specify parental alcohol and other drug abuse as an issue of concern. However, this is considered a conservative estimate as DoCS caseworkers, in a Training Needs Analysis in 2000, reported that 75-90% of their cases involve problematic alcohol or drug misuse. The Child Death Review Team has highlighted the link between parental substance dependence and child death and/or child abuse and neglect.

Parental drug-testing is widely used in DoCS, both as a casework tool (providing insights on the need for out-of-home placement, treatment service referrals and the need for changes in visitation conditions) and to inform Children's Court decisions (such as the removal of a child or young person from his or her parent(s) and planning for permanency, including restoration to the family). The test results are mainly used to verify parent/caregiver statements about their use or lack of use and to assist in assessing their parenting capacity.

DoCS requires advice on the current evidence for and against drug-testing in child protection. Caseworkers and the courts require guidance on the range of circumstances in which drug-testing may be most productively employed.

DoCS' own research on drug screening in the child protection context to date has raised concerns about:

- Difficulty of interpretation of the results of drug-testing for caseworkers and the courts;
- Costs and benefits of the competing technologies for testing;
- The relationship between a drug-test result and the client's parenting ability;
- The reliability of drug-testing in various contexts, and;
- Costs and feasibility of involuntary testing in the absence of appropriate treatment services.

OBJECTIVES

- Review and analyse recent international and national research literature on the role and efficacy of drug-testing in the child protection context and in other analogous settings such as the workplace.
- Review and analyse the latest research evidence from Australia and overseas on: the best practice in using testing in a positive way in the context of working with families; the cost-effective means of ensuring robust test results; and best practice in the management of testing.
- Provide advice on the extent to which drug-testing in the child protection context accords or conflicts with harm minimisation and other key strategies and directions in the field of alcohol and drugs.
- Provide advice on the merits of alternative tools and approaches to gathering information on clients' drug use.

Specific Research Questions and Key Issues;

1) What are the most reliable and cost-effective drug-testing modes?

- How frequently should testing be carried out, who should do it, and over what duration, to establish that a person is drug free? Does this vary for particular types of drugs? Or for poly drug use?
- At what point can testing be stopped? Does this vary for particular types of drugs? Or for poly drug use?

2) What are the other options to assess drug use?

- Comment on the alternative approaches to drug-testing such as use of the HEARTH Self Assessment Tool, clinical observation, the role of interested others and using information from a range of sources/agencies.
- What are the clinical indicators of drug use and how might workers use knowledge in a supportive way in detecting and recognising the problems associated with different drugs?

3) Can parental drug-testing be used to motivate change?

- Can drug-testing be used in the context of rehabilitation/treatment to positively influence motivation for change? Comment on current treatment/rehabilitation practices and self-managed change.
- Is drug-testing an intervention on its own?

- Is drug-testing equally reliable under voluntary and involuntary circumstances?
- Are there any gender differences in rehabilitation compliance in drug-testing?

4) What level of drug use affects capacity to parent?

- At what point does drug use affect competency, particularly behaviour that may impact on parenting?
- What might constitute 'reasonable' levels of drug use, ie levels with least harmful consequences for family dynamics/care of children?
- What level of use is indicative of dependence?
- How does drug use impact on the family in the context of co-parenting, where one or more parent is a drug user?

5) What are the treatment modalities available (range of options)?

DELIVERABLES/OUTCOMES

A comprehensive report (15-20 pages) detailing:

- The methodology used to ensure a thorough review of current/relevant international and national literature to determine the most current directions in research on the role and efficacy of drug-testing in the child protection context.
- A critique of the current research literature on drug-testing in the child protection context and other relevant settings.
- Discussion of the range of issues associated with drug-testing as outlined above in background and objectives.

Synthesis of the major findings and conclusions from the evidence; specifically, conclusions about the case for and against drug-testing in child protection, and, given the existence of drug-testing in child protection, the circumstances in which it may be most usefully employed, the preferred means of testing and how existing practices can be improved.