Assessing the Importance of Culture in Explaining Drug Use amongst Indigenous Police Detainees in Adelaide

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Abstract

This article assesses the role of the Indigenous culture of origin in explaining the early age of initiation into drug use and its relation to subsequent abuse and dependence amongst Indigenous Australians living in urban centres. In particular it is argued that 'culture' interacts with a range of social, internal, and environmental risk factors which thereby generate social conditions within the urban Indigenous community that tolerate and promote both the initiation into, and sustained use of illicit drugs. As such, this article also advocates that strategies that are designed to combat sustained drug use must be sensitive to, and incorporate, the traditional forms of kinship, family and care which pervade the Indigenous culture of origin.

Introduction

The factors that influence individuals to initiate into drug use are numerous, and the complex processes by which these factors have influenced such behaviour have, over the past three decades, been well researched and documented (e.g. Kandel, Kessler & Margulies 1978; Hawkins, Lishner, Catalano & Howard 1986; Beman 1995; Reinherz, Giaconia, Haut, Wasserman & Paradis 2000). When considering Australia however, or more specifically, its Indigenous population, the available literature regarding the initiation into drug use, and the extent of subsequent abuse and dependence in urban centres is preliminary at best. That is, whilst previous research examining the predictors of drug use initiation and subsequent misuse is both rich and established, Indigenous Australians are rarely considered as a distinct group of study. This is largely a result of research being primarily oriented towards a North American and/or European readership.

To address this gap, and provide some insight into Indigenous drug use, this article will undertake a secondary analysis of data collected through Drug Use Monitoring in Australia

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Such analysis suggests that the early adoption of drug use amongst Indigenous police detainees relates to a significantly increased likelihood of sustained use and dependence. Further, the results suggest that the vast majority of Indigenous police detainees considered in this study first initiated into drug use during preadolescence (0-12 years), and adolescence (13-17 years). It is argued that this trend is largely due to the interaction between the Indigenous culture of origin and a variety of risk factors which, as a by-product, create social conditions within the urban Indigenous community which tolerate and promote early initiation into, and sustained drug use.

To provide a better understanding of this relationship, this article will firstly consider and discuss a range of social (familial relationships, school performance, peer influences), internal (behaviours, attitudes, personality traits) and environmental (employment and economic well being) risk factors which have been identified within the literature as relating to the early adoption of drug using behaviours amongst both Indigenous and non-Indigenous Australians. The Indigenous culture of origin, and its interaction with the abovementioned risk factors will be discussed and will illustrate how social conditions which tolerate and promote drug using behaviours amongst youth can be formed and perpetuated throughout Indigenous communities. Finally, this article discusses the implications of this research and advocates that policies or strategies which are designed to combat sustained drug use amongst young Indigenous Australians must be sensitive to, and incorporate the traditional forms of kinship, family and care which pervade the Indigenous culture of origin. Further, it is recommended that such policy should account for the social dislocation of the Indigenous peoples of Australia and bridge modern 'white' policies with the traditions, beliefs and values of the Indigenous culture of origin. This argument has developed partly as a response to Indigenous understandings of the origins of drug abuse and dependence amongst their people and stresses the disruption to cultural practices, as well as dispossession brought about by colonisation (Brady 1995).

Methodology

The data used in this article was originally collected by researchers collaborating with the Australian Institute of Criminology (AIC) for the DUMA project (for a detailed description of DUMA, its organisational structure and data collection protocols, see Makkai 1999). The AIC has authorised a secondary analysis of the South Australian DUMA database (2002-2005) for the purpose of this research. The following section will outline the methodological framework under which this database will be conceptualised, and will provide an account of the sampling and measurement procedures used. This section will conclude by addressing the methodological limitations that emerge under this framework.

Population

The population used in this research was derived from the South Australian DUMA database and includes police detainees from the Adelaide City Watchhouse and Elizabeth Police Station Cells between January 2004 and December 2005 (n=4235). Data collected prior to January 2004 was excluded from this research, as the specific data relating to drug dependence was not collected until this time. Participation in this research was voluntary and of those 4235 cases, specific data relating to drug dependence (as discussed in greater detail below) was missing (or skipped) in 1797 instances. These missing cases were not included in the final analysis, thus producing a greatly reduced total (n=2438). Of those 2438 cases, only respondents reporting being of Indigenous/Torres Straight Islander decent
were included in this analysis, resulting in a final population size of 307 (non-Indigenous respondents were not considered).

**Measuring Drug Dependence**

In 1981, Edwards, Arif and Hodgson defined the condition of ‘drug dependence’ as being a syndrome that, is ‘manifested by a behavioural pattern in which the use of a given psychoactive drug, or class of drugs, is given a much higher priority than other behaviours that once had higher value’ (29). Further, they contend that an assessment of dependence relies upon multiple criteria, including cognitive, behavioural and psychological phenomena (Edwards et al 1981). Since its introduction in the early 1980s, this condition has gained wide acceptance internationally, and has been adopted by the World Health Organization (WHO) as ‘a general term, the state of needing or depending on something or someone for support or to function or survive. As applied to alcohol and other drugs, the term implies a need for repeated doses of the drug to feel good or to avoid feeling bad’. Further, ‘the term can be used generally with reference to the whole range of psychoactive drugs (drug dependence, chemical dependence, substance use dependence), or with specific reference to a particular drug or class of drugs (e.g. alcohol dependence, opiate dependence)” (1994). In extreme cases, drug dependence can also be associated with ‘compulsive drug-using behaviour’ (Edwards et al 1981:230).

Using the framework originally devised by Hunt and Rhodes (2001), drug dependence for the purpose of this study, will be measured by analysing the responses to dependence related questions collected under DUMA and comparing them to the characteristics of Psychoactive Substance Abuse as outlined in the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV). Under this framework, any person exhibiting three or more characteristics of psychoactive substance abuse is considered to be dependent (see Appendix A for a list of the characteristics of psychoactive substance abuse).

The questions relating to drug dependence in the DUMA survey correspond closely, but are not identical to those criteria outlined in the DSM-IV. Because there is some variation among the specific questions asked in the DUMA survey and those requirements listed under the DSM-IV, the DUMA data does not allow for a specific diagnosis. It does however, provide a sufficient means by which to gather and analyse information relevant to drug dependence (Calkins, Bynum, Huebner, White & McGarrell 2003; Hunt & Rhodes 2001).

The specific questions listed in the 2004 and 2005 DUMA survey to measure drug dependence are as follows:

1. In the past 12 months, have you spent more time using illegal drugs than you intended?
2. Have you neglected some of your usual responsibilities in the past 12 months because of using illegal drugs?
3. During the past 12 months, have you wanted to cut down on your illegal drug use?
4. In the past 12 months, has anyone objected to your illegal drug use?
5. In the past 12 months, have you frequently found yourself thinking about using illegal drugs?
6. In the past 12 months, have you used illegal drugs to relieve feelings such as unhappiness, anger or boredom?
In order to assess elements of substance abuse and dependence, Calkins et al (2003) produced a table (see Table 1) comparing these six questions with the corresponding criteria under the DSM-IV. It should be noted that this table was created for the purpose of comparing the questions asked in the Arrestee Drug Abuse Monitoring (ADAM) survey to the DSM-IV. However, the questions listed in the ADAM survey are identical to those in the DUMA survey and as a result, a comparison between the DUMA survey and the DSM-IV is possible under this framework.

Table 1: ADAM and DSM-IV Comparison

<table>
<thead>
<tr>
<th>ADAM Question</th>
<th>Relation to DSM-IV Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA1 unplanned use</td>
<td>DSM-IV dependence criteria #3</td>
</tr>
<tr>
<td>DA2 neglect of responsibilities</td>
<td>DSM-IV abuse criteria #1</td>
</tr>
<tr>
<td>DA3 tried to cut down</td>
<td>DSM-IV dependence criteria #4</td>
</tr>
<tr>
<td>DA4 objections by others</td>
<td>DSM-IV dependence criteria #4</td>
</tr>
<tr>
<td>DA5 preoccupation</td>
<td>Not contained in DSM-IV</td>
</tr>
<tr>
<td>DA6 relieve emotional stress</td>
<td>Not contained in DSM-IV</td>
</tr>
</tbody>
</table>

(Calkins et al 2003)

It should be noted that the substances considered in this study are limited to cannabis, cocaine, heroin, morphine, street methadone, amphetamine type stimulants (ATS), benzodiazepines, ecstasy, hallucinogens and inhalants. Alcohol, prescribed and other licit drugs will not be discussed. Alcoholism amongst Indigenous Australians has been the subject of considerable research and will not be reproduced here (e.g. Brady 2004).

Limitations

It is important to note that the findings of this study should be considered with caution. The brief, amended DUMA diagnostic criteria used in this study may not accurately reflect the true extent of a clinical diagnosis obtained using the completed DSM-IV diagnostic criteria by a trained clinician during a clinical interview (Calkins et al 2003). Practical considerations (for example, resource constraints) prohibited the DUMA project from seeking a proper clinical diagnosis. As a result, the data produced for this study reflect a ‘diagnostic impression’ as opposed to a strict diagnosis, indicating that drug dependence is likely or probable, but not necessarily definite (Calkins et al 2003).

One must be cautious not to overestimate the scope of this study by recognising that the results reported below reflect this specific population of police detainees and are not representative of Australia's Indigenous population as a whole. Moreover, the dynamic, varied and illicit nature of drug markets in Australia make an accurate and official assessment of overall drug use difficult, if not impossible to estimate. Despite its limitations, DUMA represents a unique monitoring program that through regular reporting, aids policy makers, police and legal practitioners to devise strategic responses to drugs and drug-related crime (Willis, Homel & Gray 2006).
It is also important to emphasise that the results of this study only reflect those Indigenous Australians detained in urban South Australia (more specifically, Adelaide and Elizabeth). The conclusions drawn from this study may not reflect or represent Indigenous offenders in regional, rural or remote communities, or those residing in other states or territories.

As authors we wish to acknowledge that a preponderance of studies from the 1970s and 1980s underpin many of the claims made in this study. In relying on these studies we could be accused of undermining the contemporaneity of the claims made. However, the sheer dearth of recent, contemporary literature forced us to resort to the extant literature — as impoverished and inadequate as it was as a point of embarkation. This also explains why some of the studies we consulted related to Indigenous people in remote and overseas communities — two factors which do not explicitly fall within the ambit of the focus on urban communities. These tensions did not go unnoticed, nor could they be easily reconciled. Our study thus proceeded in the face of this lacuna of knowledge and with the knowledge that this situation was far from ideal.

It must also be acknowledged that much of the literature relied upon in this study derived from 'official' sources. That is to say, Indigenous people were the subjects of such studies without necessarily informing or directing how those studies were conceived and carried out. An inherent problem here is that such studies may be accompanied by colonialist or racist assumptions, biases and stereotypes which inform their findings. As authors, we were sensitive to the fact that 'official' studies can obfuscate Indigenous voices, experiences and understandings. Having no way to address such failings, we nevertheless wish to flag from the outset that the extant literature itself is compromised to the extent that it is largely generated from ‘official’ sources.

Results

Drug Use Initiation and Subsequent Dependence

An assessment of the prevalence of drug dependence amongst Indigenous police detainees (n=307) under the previously outlined methodological framework, showed that 69.4% (n=213) were identified as being drug dependent at the time of data collection, whilst 30.6% (n=94) were regarded as not being drug dependent (see Table 2).

Table 2: Description of Data Set

<table>
<thead>
<tr>
<th>Drug dependent at data collection</th>
<th>Total (n=307)</th>
<th>Age of initiation into drug use</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Preadolescence (n=120)</td>
<td>Adolescence (n=162)</td>
<td>Adulthood (n=25)</td>
</tr>
<tr>
<td>Yes</td>
<td>213</td>
<td>101</td>
<td>100</td>
<td>12</td>
</tr>
<tr>
<td>No</td>
<td>94</td>
<td>19</td>
<td>62</td>
<td>13</td>
</tr>
<tr>
<td>Summary</td>
<td>307</td>
<td>120</td>
<td>162</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: AIC 2002-2005 DUMA Collection [computer file]
The distribution of the age at which Indigenous police detainees first initiated into drug use\(^1\) varied considerably among dependent and non-dependent detainees and is illustrated in Table 2. In this table, detainees have been categorised into three distinct groupings based on their age of initiation into drug use: those who initiated during (a) preadolescence (0-12 years old), (b) adolescence (13 to 17 years old) and (c) adulthood (18 years and over). Overall, 39.1% (n=120) of Indigenous police detainees initiated into drug use during preadolescence, compared with 52.8% (n=162) during adolescence and 8.1% (n=25) during adulthood. The vast majority (84.2%, n=101) of those Indigenous police detainees who initiated into drug use during preadolescence were identified as being drug dependent at the time of data collection. This contrasts strongly with the other age groupings, as a smaller majority (61.7%, n=100) of those initiating into drug use during adolescence and a near-majority (48.0%, n=12) of those initiating during adulthood were identified as drug dependent at the time of data collection. Table 2 also reports the mean age of drug use initiation for all Indigenous police detainees (both drug dependent and non-dependent) as 13.33 years. Amongst drug dependent Indigenous police detainees, the mean age of initiation was 12.67 years, whilst the mean age of initiation amongst non-dependent detainees was 14.83 years (Table 2).

A logistic regression model was fitted to this data to test the hypothesis that there is a predictive relationship between age of initiation into drug use, and the likelihood of future drug dependence amongst Indigenous police detainees. Under this model, age of initiation into drug use is identified as being a significant predictor of future drug dependence (p<0.01). To elaborate, the likelihood of an Indigenous police detainee being identified as drug dependent was negatively related to their stated age of initiation into drug use. That is, the younger a detainee was when he or she initiated into drug use, the more likely they would later be identified as being drug dependent (see Table 3).

**Table 3: Logistic Regression Analysis of Drug Dependant Diagnoses – SPSS 16**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE β</th>
<th>Wald’s χ²</th>
<th>df</th>
<th>P</th>
<th>eβ (odds ratio)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.373</td>
<td>0.598</td>
<td>31.865</td>
<td>1</td>
<td>0.00</td>
<td>N/A</td>
</tr>
<tr>
<td>Age</td>
<td>-0.188</td>
<td>0.42</td>
<td>19.612</td>
<td>1</td>
<td>0.00</td>
<td>0.829</td>
</tr>
<tr>
<td>Test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>χ²</td>
<td>df</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Model evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Omnibus tests of model coefficients</td>
<td>24.612</td>
<td>1</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goodness-of-fit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hosmer &amp; Lemeshow</td>
<td>9.758</td>
<td>6</td>
<td>0.135</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Cox and Snell R² = 0.077, Nagelkerke R² = 0.109
Source: AIC 2002-2005 DUMA Collection [computer file]

Table 3 further shows the descending predicted probabilities of drug dependence as age increases amongst Indigenous police detainees. For every 1-year increase in age of

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\(^1\) For the purpose of this research, the ages referred to in this paper are calculated based upon the youngest age a respondent indicated trying any one of the 10 drugs being considered: cannabis, heroin, cocaine, amphetamines, ecstasy, morphine, street methadone, benzodiazepines, hallucinogens, and inhalants.
initiation, the odds of future drug dependence decreased from 1.0 to 0.829 \( (=e^{-0.188}; \text{Table 3}) \). If the increase on age of initiation was 5 years, the odds decreased from 1.0 to 0.391 \( (=e^{3(-0.188)}) \). For an increase of 10 years, the odds decreased from 1.0 to 0.153 \( (=e^{10(-0.188)}) \) and an increase in 15 years was accompanied by a decrease in odds from 1.0 to 0.060 \( (=e^{15(-0.188)}) \).

The validity of the predicted probabilities reported above are outlined below in Table 4. According to this classification table, with a cut-off point set at 0.5, the prediction for Indigenous police detainees who were identified as drug dependent was more accurate than for those who were not dependent. The overall correction prediction was 69.7\%, an improvement over the chance level.

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not dependent</td>
<td>Dependent</td>
<td>Percent correct</td>
</tr>
<tr>
<td>Not dependent</td>
<td>13</td>
<td>81</td>
<td>13.8</td>
</tr>
<tr>
<td>Drug dependent</td>
<td>12</td>
<td>201</td>
<td>94.4</td>
</tr>
<tr>
<td>Overall percent correct</td>
<td>-</td>
<td>-</td>
<td>69.7</td>
</tr>
</tbody>
</table>

Note: Sensitivity =13/(13+81)\% = 13.8\%. Specificity =201/(12+201)\% = 94.4\%. False positive = 12/(12+13)\% = 48.0\%. False negative = 81/(81+201)\% = 28.7\%.

Source: AIC 2002-2005 DUMA Collection [computer file]

To summarise these results, Table 2 shows that on average, drug dependent Indigenous police detainees initiated into drug use at an earlier age than their non-dependent counterparts. Table 3 meanwhile emphasises that early age of initiation into drug use is a significant predictor of future drug dependence. These results provide data to support the assertion that the early adoption of drug use predicts an increased likelihood of sustained drug use/drug dependence later in life. This is a point of particular concern considering the proportion of Indigenous police detainees who reported initiating into drug use during preadolescence and adolescence.

Discussion

Before discussing how Indigenous culture influences drug use initiation and subsequent abuse, it is important to first highlight and review some of the social, environmental and internal risk factors that have been shown throughout various criminological works, to predict initiation into, and the continued use of illicit drugs. Although the past research concerning drug use predictors is both rich and established, Indigenous Australians are rarely considered as a distinct group of study, because the majority of research is oriented towards a largely American and/or European readership. However, the conclusions of such research are still relevant as they gesture towards general themes that are applicable to Indigenous Australians living in urban centres.

The Indigenous culture of origin and its interaction with the abovementioned risk factors will be discussed below and will illustrate how social conditions which tolerate and promote drug using behaviours amongst Indigenous youth are formed. This discussion will conclude
by advocating the use of the Indigenous culture as a means of addressing possible prevention/intervention strategies.

**Social Risk Factors**

The following section will discuss some of the social risk factors which have been identified in past research as being some of the most influential predictors of drug use initiation during preadolescence and adolescence. Such research is worth reporting given that 9 in 10 (91.9%) of the Indigenous police detainees considered in this study initiated into drug use before the age of 18. To be specific, this discussion of social risks will consider factors which bear relevance to Indigenous persons growing up and living in urban Australia, namely familial relationships, school performance indicators and peer influences.

**Familial Relationships**

Different facets of family life play varying roles in predicting drug dependence amongst children and adolescents. The interaction between early parental or care giving figures and children is repeatedly cited as being associated with both drug use initiation (Hawkins et al 1986; Kandel et al 1978; McDermott 1984) as well as the incidence of heavy drug use later in life (Brown 1991; Diaz & Fruhauf 1991; Glynn & Haenlein 1988; Sheldr & Block 1990). More specifically, Kandel (1982) identified three parental factors that best predict drug use initiation in children: (1) the use of drugs by parents (see also, Hawkins et al 1986; Marsh & Dale 2005; Reinherz et al 2000), (2) permissive parental attitudes towards drug use (see also, McDermott 1984), and (3) poor parent-child interactions (see also, Knyazev 2004). Such interactions might include a lack of closeness (Brooks, Lunkoff & White 1980; Kandel 1982; Kandel et al 1978) or positive communications, frequent expressions of anger (Gantman 1978), low maternal involvement, inconsistent disciplinary practices (both neglectful and abusive) (Glynn & Haenlein 1988; Reilly 1979) and either unrealistic or low educational aspirations (Hawkins et al 1986; Kandel 1982).

Less important than parental influences, but still an effective predictor of heavy drug use is the structure of the familial environment (Beman 1995; Glynn 1984; Hawkins et al 1986; Long & Scherl 1984). Loebner and Schmaling (1985) for example, maintain that adolescents emerging from disruptive, overwhelmingly negative child rearing environments were more likely to undertake a range of antisocial behaviours (which include drug abuse). The reverse is also true, as those adolescents emerging from family environments with positive relationships, parental involvement, and high levels of attachment were discouraged from initiating into drug use (Jessor & Jessor 1977; Norem-Hebeisen, Johnson, Anderson & Johnson 1984; Wechsler & Thum 1973).

The negative child rearing environment referred to above is based upon a number of specific environmental antecedents which affirm familial disruption and predict both the initiation into drug use by children, as well as heavy use later in life. The range of antecedents varies greatly and reflects a variety of disruptive practices, which can occur in the home. These include, but are not limited to, cases of physical or sexual abuse, mental disorder (Brown 1991; Coombs & Coombs 1988; De Bellis 2002; Goodwin, Fergusson & Horwood 2004), family self-medication (Reilly 1979), as well as an imbalance in parenting attitudes (over-involvement by one parent and distancing by the other) (Stanton & Todd 1979; Ziegler-Driscoll 1979).

The ongoing difficulties with violence against women and children throughout Indigenous communities is perhaps the most obvious (or most publicised) example of familial dysfunction within Indigenous households (see further, Atkinson 2002; Carney
2004; Newton 2002; People 2005). Recent statistics from New South Wales Bureau of Crime Statistics and Research indicate that Indigenous Australians are approximately six times more likely to be victims of family violence, and eight times more likely to be offenders of such violence than their non-Indigenous counterparts (People 2005). Such disruptive parental behaviour more than likely translates into an extremely negative child-rearing environment, marked by poor parent-child interactions and possibly even tolerant attitudes towards substance misuse.

When considering the family factors predicting drug abuse amongst children and adolescents, it is important to recognise that genetics may also in some way have implications as to whether a child or adolescent has a predisposition to use, abuse and ultimately become dependent on illicit drugs. Unfortunately, although some twin/adoption studies have examined the link between genetics and alcohol abuse, the body of research indicating that genetic factors may predispose individuals towards certain substances is incomplete (Hawkins et al 1986; Marsh & Dale 2005). Moreover, little or no research has been conducted that specifically targets Indigenous Australians. As a result, further study in this area is warranted.

School Performance

Previous research shows a relationship between school performance and drug use. Generally, students who lack commitment to educational achievement are more likely to adopt drug using habits (Elliot & Vos 1974; Galli & Stone 1975; Hawkins et al 1986). While poor academic performance does not in itself lead to drug use and abuse, those factors associated with poor academic performance are likely indicators of current or future drug use (Hawkins et al 1986; Kandel 1982). In a longitudinal study of 15-year-old secondary school students, Holmberg (1985) concluded that placement in special classes, truancy and premature drop outs were predictive factors of subsequent drug abuse. For example, a mature Indigenous student reflecting upon his childhood schooling experience stated that "[t]he things that made it hard for me at school were [that] I had personal problems at home[,] like my mother and her de facto fighting always and arguing. I copped a few beating myself which brought my feelings down about even going to school at all" (Howard 2002).

Peer Influences

Peer influences are arguably among the strongest predictors of drug use and abuse amongst adolescents (Elliot, Huizinga & Ageton 1982; Goodwin et al 2004; Kaplan, Martin & Robbins 1982). Further, Kandel (1982) contends that peer influences can prospectively create social settings which are favourable to drug abuse and reinforce positive attitudes towards drugs. These attitudes among peers are one of the strongest predictors of drug involvement for adolescents (Kandel 1978), as well as the individual’s perception of the frequency of actual drug use amongst his or her peers (Jessor & Jessor 1978; Kandel et al 1978).

One way to deter the development of delinquent social settings amongst impressionable adolescents is to endorse and maintain established and grounded social bonds in society (Hawkins et al 1986). More specifically, Elliot et al (1982) found that social bonds to family and education influenced drug use indirectly through peer associations. Strong positive social bonds to family, education and peers actually decreased the likelihood of both sustained drug involvement and associations with other delinquent peers. While social bonds to family and education are formed long before exposure to drug abusing peers, the strength of such bonds is likely to be a factor in the inevitable selection of either pro-social

Strong social bonds with family and school may prevent initiation into drug use amongst some youths or may delay the age at which initiation occurs. In either case, this reduces the likelihood that initial experimentation will escalate into heavy use or drug dependence. Furthermore, these strong social bonds may also limit situational drug using opportunities, or they may even abort the development of drug abuse altogether (Hawkins et al 1986). It is important to recognise that drug use amongst children and adolescents is not limited to only those with poor social bonds, as there is always the possibility that some positively bonded youths may use drugs for other, less obvious reasons (Hawkins et al 1986).

Very little research has focused on peer associations and relationships amongst preadolescent populations in so far as assessing their potential for drug initiation and dependence in later life (Hawkins et al 1986). As this current study indicates, a large proportion (39.1%) of Indigenous police detainees indicated initiating drug use before the age of 12 and the vast majority of this group was drug dependent at the time of data collection (see Table 2). A need for further research into peer influences on pre-adolescent drug use is clearly required.

**Internal Risk Factors**

Previous research into drug use initiation amongst adolescent populations has also identified a range of internal risk factors which have bearing upon drug use initiation. The internal risk factors which will be examined here are behaviours, attitudes, values and personality traits. While these factors have been identified as being less substantial than the effects of familial or peer associations, they have still been shown to influence the uptake of drug using behaviours (Jessier, Chase & Donovan 1980; Kandel 1978) and are therefore worth considering for discussion.

**Behaviours, Attitudes, Values and Personality Traits**

This research suggests that antisocial and delinquent behaviours have been found to predict adolescent drug abuse, especially aggressiveness (Reinherz et al 2000), irritability and rebelliousness (Segal 1977; Smith & Fogg 1978). Not surprisingly, a positive relationship also exists between the use of illicit drugs and other delinquent behaviours (Jessier et al 1980; Johnson, O'Malley & Evelard 1978). As an explanation for such behaviours, Hirschi (1969) and Hindelang (1973) maintain that delinquency is the result of a breakdown of social bonds between the individual adolescent and society itself. Social bonds include, but are not limited to the familial environment, commitment to educational pursuits, involvement in community or religious activities, as well as a belief in the generally accepted values and norms of society. Accordingly, an adolescent's disaffection for the established norms of society has also been shown to be directly related to initiation into drug use and generally occurs when a youth adopts values favourable to such use (Jessier et al 1980; Jessier & Jessier 1978; Kandel 1982; Kandel et al 1978).

The research further indicates that there is a relationship between a wide range of personality traits and sustained drug use. These traits include resistance to authority (Smith & Fogg 1978), tolerant attitudes towards delinquency (Brooks, Lunkoff & Whiteman 1977; Jessier & Jessier 1977) a desire for independence (Segal 1977), impulsivity (Shelder & Block 1990), normlessness (Paton & Kandel 1978), and a non-conforming stance towards established social values (Jessier & Jessier 1977). Furthermore, Smith and Fogg (1978) also
found that drug abusing adolescents demonstrated a lack of obedience, drive and ambition towards societal achievement.

A number of internal psychological processes amongst adolescents have also been identified throughout the literature as being associated with the development of recurrent drug use. These include diminished perceptions of well-being, self-control, responsibility, tolerance towards conformers, intellectual capacity (Wexler 1975), self-esteem (Jessor & Jessor 1978; Paton & Kandel 1978; Smith & Fogg 1978), self-respect, confidence (Freidman, Utada, Glickman & Morrissey 1987), self-regulation and satisfaction (Dawes, Tarter & Kirisci 1997; Shelder & Block 1990). Shelder and Block (1990) suggest further that adolescent drug users may feel a certain inadequacy when interacting in social situations, and experience difficulty in deriving both pleasure and satisfaction from common everyday activities such as school, inter-personal relationships, family and work. This lack of self-regulation thus predisposes them towards sensation seeking attitudes and subsequent drug dependence.

Other clinically diagnosed psychological conditions, such as depression and anxiety can also lead to drug use initiation (and vice versa) (von Sydow, Lieb, Pfister, Hofler & Wittchen 2002). Kaplan and Johnson (1986) for example, contend that psychological and psychiatric distress amongst adolescents at the time of drug use initiation is a good predictor of continued usage later in life. It was also found that the continued use of illicit drugs during early adolescence increased the likelihood of these psychological conditions (Kaplan & Johnson 1986).

Environmental Risk Factors

In Australia, other broader environmental influences are also associated with initiation into and continued drug use. These influences reflect conditions of poverty, ethnic marginality and perhaps even limited opportunities for societal achievement (Jessurun 1991; Marsh 1996). Previous drug use prediction research has identified clear relationships between drug dependence, and an individual’s labour (employment) status and economic well being.

Labour Status and Poverty

While labour status is an unlikely predictor of preadolescent initiation into drug use (seeing as preadolescents do not typically engage in paid labour), it has been associated with, and helps to explain, continued drug use and dependence amongst adults. It is, however, important to recognise that the employment status of adults can indirectly influence other risk factors (e.g. parental drug use) which have been identified as being strong predictors of initiation into drug use amongst youthful populations and thus having implications for early initiation into drug use.

Brewer and colleagues (1998) through their comprehensive review of drug use prediction literature (1966-1996), emphasised a relationship between occupational (labour) status and continued drug use. These findings are important, as data collected through the Australian Bureau of Statistics (ABS) (2001) suggests that Indigenous persons in Adelaide (Statistical District 405) are three times more likely to be unemployed (25% unemployment rate) than their non-Indigenous counterparts (8% unemployment rate). However, it is unclear as to whether employment status influences drug dependence, or whether the converse applies. These differences are noteworthy and may indicate an inequality in the opportunities available to Indigenous persons living in urban centres.

Gray and Hunter (2005) explored Indigenous Australian labour markets in great detail, looking specifically at the various labour states (i.e., full-time employment, part-time
employment and unemployment) of Indigenous Australians, and found an unusually high rate of movement across the labour states of the target population. For example, of those Indigenous Australian males surveyed who were engaged in part-time work, only half (49%) were in paid employment 15 months on, while just over half (56%) of those employed full-time were still employed 15 months later. In fact, for Indigenous males, the most stable labour state was unemployment, with only 16% of the unemployed moving into paid work during that same time frame (Gray & Hunter 2005). Whilst the trends described for Indigenous males are also similar amongst women, it is important to note that Gray and Hunter (2005) did contend that generally, Indigenous women were more likely to desire employment than men, but were not actively seeking work because of a lack of access to childcare.

While there is a paucity of research pertaining directly to the underlying causes of Indigenous unemployment, the available literature has nonetheless identified a number of trends that are worth considering within the scope of this current study. Granvotter (1995) has for example, suggested that informal networks amongst relatives and peers are important as a means of finding employment. With respect to the Indigenous labour market, it is argued that Indigenous Australians are less likely than non-Indigenous Australians to have access to such networks, due to the fact that members of these networks were more likely to be unemployed themselves. Thus, there would be limited employment opportunities available to Indigenous Australians through informal networks. It is this lack of opportunity that Indigenous community leaders argue has caused high rates of community dysfunction and antisocial drug abusing behaviour (Gray & Hunter 2005).

To better understand this concept, Gray and Hunter (2005) suggest attitudes, values and social norms towards employment amongst Indigenous social networks are often inconsistent with values associated with sustained employment, and consequently contribute to the low job retention discussed above. These values are characterised by a non-work ethic, and are consistent with welfare discourse theories originating within the United States (see Murray 1994), which suggest that the individual’s fulfilment of responsibility to work is undermined by an overwhelming sense of intergenerational welfare dependence (Gray & Hunter 2005).

As an environmental influence, poverty is also routinely cited throughout the literature as being associated with initiation into continued drug use (Marsh 1996). This result is worth noting, considering that data from the 2001 Census for Population and Housing indicates that the average household income for Indigenous persons living in Adelaide was less than that of their non-Indigenous counterparts.

**Culture**

The relationship between culture, drug abuse and prospective models towards prevention and intervention amongst Australian Indigenous and Native North American populations has been explored in considerable detail in recent years (e.g. Brady 1995, 2004; Pearson 2000). The following paragraphs will consider this research, and other relevant literature relating to cultural predictors of drug using behaviours in an effort to better understand why Indigenous Australians initiate into drug use.

Firstly, it is necessary to define ‘culture’ as its meaning can be ambiguous, and as a term, it is constantly misused and generally misrepresented in policy making. Therefore, this article will base its definition of culture upon the model submitted by Geertz (1973) who suggested that cultures are entities which reflect the histories and traditions of a particular
group of people, thereby influencing attitudes, values systems, social norms, identity development and decision making.

Looking at Australia in particular, Griswold-Ezekoye (1986) contends that Australian society is comprised of two cultures: (1) the dominant culture, and (2) the culture of origin. To elaborate further, the dominant culture in Australia comprises an amalgamation or blending of the various cultures of origin held by the individuals living within its borders (for example, Indigenous, English, Greek, Italian, Irish, etc). Over time, these distinct cultures of origin have evolved into a new dominant culture, to which everyone living within Australian society is subjected. The various cultures of origin (which are still held dear to many) coexist with the dominant culture, existing both independently and interdependently, each shaping the future of the other. However, there is potential for conflict, resulting from the interaction between the dominant culture and the culture of origin, as specific values, traditions and rituals of the culture of origin may be inconsistent with those of mainstream society (dominant culture) (Griswold-Ezekoye 1986).

It is this interaction of unresolved historical conflicts between the traditions and rituals of the Indigenous culture of origin and those of the dominant Australian society (or dominant culture) which are considered here, as there is evidence to suggest that they increase the likelihood of susceptibility to drug using behaviours (Griswold-Ezekoye 1986). In the case of Indigenous Australians, Brady (1995; 2004) suggests that an indirect relationship exists between the traditions, beliefs, values and social structure of the Indigenous culture of origin and an individual’s susceptibility to drug using behaviours. In this instance the Indigenous culture of origin has the potential to influence other social, internal and environmental risk factors which can, in turn, create conditions favourable to drug use.

The various influences that the Indigenous culture of origin has had on peer associations and drug abuse have been repeatedly reported throughout the literature as being a cause for concern (e.g. Brady 1993, 1995, 2004). More specifically, Keen (1988, cited in Brady 1995:1491) suggested that Indigenous Australians have amongst peers, adopted stereotypes that promote drug using behaviours within the Indigenous culture of origin as a result of the unresolved historical conflicts with Australia’s dominant culture:

Individuals who attempt to give up alcohol, along with those who try to save money or get ahead, can be derided by other aborigines as trying to be like ‘gubs’ or ‘whitesellos’, getting too ‘flash’, trying to be ‘different’. These levelling procedures, which are reinforced through gossip, group pressure [and] shaming, are as much part of the aboriginal culture and way of doing things as is playing a traditional instrument such as the didgeridoo ...

Also, Gibson (1987) and Brady (2004) suggest that within the Indigenous culture of origin, traditional obligatory cultural norms are often manipulated, distorted and exploited by individuals as a way of creating conditions favourable to drug using behaviours. Brady (2004) and Pearson (2000) further contend that this is especially so amongst families, where abusing individuals may assert that they have a right to demand financial support from others to sustain such behaviours (Gibson 1987).

As is the case with parental modelling and peer associations, Griswold-Ezekoye (1986) suggests that traditional drug using rituals are also strong predictors of drug using behaviours, as chemical use is often associated with various cultures of origin both medically and socially. However, anthropological evidence suggests that for the most part, prior to colonisation, the traditional Indigenous culture of origin was, with the exception of tobacco in the central desert areas of Australia, drug free (Gracey 1998).
When discussing the Indigenous culture of origin, it is important to acknowledge that some researchers have argued that drug-abusing behaviours and ill-health amongst Indigenous Australians have arisen due to the erosion of the cultural integrity of Indigenous Australia since colonisation (Brady 1995). Moreover, Swain (1992) suggested that ‘[i]n Australia, the loss of cultural identity is viewed as a kind of “fall from Eden”, an imagined state which existed prior to 1788 when Captain James Cook arrived with the first fleet ...’ (Brady 1995: 1989). Whether or not this argument holds true is subject to debate (see Brady 1995), but if it is indeed accepted that the Indigenous culture of origin reflects the historical experiences of its people, then one must also consider how the lack of employment, resources, government services and income has influenced the cultural evolution of this group. Above all, the possible impact of these cultural influences upon the drug using behaviours of Indigenous people must be considered (Griswold-Ezekoye 1986). As discussed above, Indigenous communities face a range of socio-cultural, social (familial relationships, peer associations), internal (beliefs, values and attitudes) and environmental (employment and poverty) influences that create tolerant attitudes towards drug using behaviours that ultimately have implications for children raised within those societies (Dembo 1982). The youth raised within these communities may as a result be exposed to a culture of origin that not only tolerates, but in many ways supports drug using behaviours for non-medical purposes. In such a setting, these tolerant attitudes can be culturally transmitted from one generation to the next, thereby further exacerbating the problem (Griswold-Ezekoye 1986).

The fact that such a large proportion of Indigenous police detainees initiated into drug use during preadolescence and adolescence may be evidence that such cultural transmission exists. Indeed, this trend is alarming, as the results of this current research suggest that the earlier a detainee initiated drug use, the more likely he or she would subsequently be regarded as drug dependent. These findings are consistent with those reported by Kandel, Single and Kessler (1976), who concluded that initiation into drug use before the age of 15 was a strong indicator of continued and regular drug use, and that initiation at a later age was typically associated with a greater likelihood of discontinued use. This latter point is evident amongst the present population of police detainees, as only 5.6% of Indigenous police detainees drug dependent at the time of data collection had initiated into drug use during adulthood.

Injecting Culture into Policy

Over the past two decades, many researchers in this area have concluded that existing mainstream prevention and intervention services do not adequately engage with young Indigenous Australians (e.g. Brady 1993, 1995, 2004; Pearson 2000). Tonkinson (1990) suggests that Indigenous Australians have a strong cultural identity, priding themselves as being distinctly different from other Australians. This is consistent with a view held by Griswold-Ezekoye (1986), who argues that models for drug prevention and interventions lack in both flexibility in approach, as well as individualisation in application. It is argued that such omissions may be addressed by adding ‘culture’ into any such model for prevention or intervention.

The notion that the Indigenous culture of origin holds the key to prevention and intervention has for decades been a staple of the South Australian Government when it comes to providing drug prevention/intervention services to remote Indigenous communities (Department of State Aboriginal Affairs 2002). In recent years however, both researchers and government have embraced the notion of using the Indigenous culture of origin in policy relating to urban centres. The prevention and intervention policies formerly limited to
traditionalist Indigenous communities in remote areas have been extended to include those persons living in an urban setting (Brady 1995; Department of State Aboriginal Affairs 2002). Programs such as the ‘Respect Yourself Respect Your Culture’ National Drug Campaign have been embraced by the Indigenous community as a ‘great way to show young Indigenous youth that you can live a healthy and drug free life[,] it is so true to respect yourself [and to] respect your culture’ (Deadly Sounds 2005). Similarly, other Indigenous voices (particularly in North America) echo this sentiment, suggesting that ‘[n]egative lives lived through alcohol and drugs is the norm in many off our communities. Culture is very important’ (Knowledgeable Aboriginal Youth Alliance 2006).

Culture as Prevention

A report commissioned by the Department of State Aboriginal affairs (2002:1) indicates that the Government of South Australia has acknowledged the need to provide drug abusing Indigenous South Australians with services and programs which are ‘culturally appropriate’, and ‘sensitive to the special needs of Aboriginal people’. The evidence in support for a cultural model directed towards drug abuse prevention and interventions is compelling as it has been suggested that culture, more specifically, the emphasis on traditional forms of kinship, family and care, can prevent and intervene against drug using behaviours (Brady 1995). For example, Oetting, Edwards and Beauvais (1989) contend that a renewed cultural identity serves to inoculate potential users against the dysfunction which leads towards antisocial drug using behaviours. This involves an indirect process, whereby preventive cultural influences impact upon the three risk factor domains listed above, which in turn, influence drug using behaviours. In other words, strengthened cultural bonds within Indigenous communities equate to positive familial relationships, peer associations, attitudes, beliefs and values. Under such a model, the Indigenous culture of origin is used as a means of altering social structures amongst Indigenous youth in an effort to intervene in, or prevent the formation of conditions which promote drug using behaviours.

Despite the recognition of these issues by government, only a modest amount has been done to inject culture into Indigenous preventive policy strategies. In the Adelaide metropolitan area for example, there was, as of October 2006, one service that focused on culture with a view to prevent or minimise drug using behaviours. This service, known as the Aboriginal Kinship Program, is an initiative by the state government’s Aboriginal Health Division, which emphasises support for Indigenous families. The objectives of the Aboriginal Kinship program are to support families coping with illicit drug using behaviours by increasing education, counselling and referral services through community based projects. These objectives move towards a common goal: to reduce the prevalence of drug use amongst Indigenous Australians by addressing other, underlying risk factors (e.g. unemployment, education, poverty, peer associations, etc) and by recognising that drug misuse cannot be viewed in isolation from other, broader social, internal or environmental factors. This program was originally designed to operate as a flexible alternative to other modern drug misuse services; to respond to the individual needs of Indigenous users, rather than expecting users to conform to service standards (Department of State Aboriginal Affairs 2002).

In principle, a program such as this appears ideal – utilising culture as a means of interacting with Indigenous families to address the risk factor domains that are most likely to influence drug using behaviours. This program has been successful to a point, engaging with some Indigenous families, which may not have otherwise been possible. However, in practice, the Aboriginal Kinship Program has been handicapped by a lack of resources and infrastructure. As of December 2006, this program was being run centrally through a single
Community Centre in the Northern Suburbs of Adelaide, with four additional employees distributed throughout the metropolitan area. Due to limitations of manpower and general in-house structuring, much of the work done by the program (for example counselling) has been outsourced to services in partnership with the Aboriginal Kinship Program.

While the creation of such programs like the Aboriginal Kinship Program constitutes a step forward in addressing drug use initiation amongst Indigenous youth, further work is needed to bolster these services. The research suggests that if resourced properly, the traditional forms of kinship, family and care stemming from the Indigenous culture of origin, can be instrumental in preventing and intervening in drug use initiation and continued use amongst Indigenous youth. Moreover, providing culturally sensitive services may also foster a stronger sense of social inclusion amongst the Indigenous Australians residing in urban centres.

Conclusion

This article has provided evidence to suggest that the early adoption of drug use amongst Indigenous police detainees relates to an increased likelihood of sustained use and future dependence. Further, the results of this article show that the vast majority of Indigenous detainees initiated into drug use at a young age (with most doing so during preadolescence and adolescence). It is argued that this trend is largely due to the interaction between the Indigenous culture of origin and a variety of risk factors which, as a by-product, create social conditions within the urban Indigenous community which tolerate and promote preadolescent initiation into, and sustained drug use.

More specifically, arguments are put forth which suggest that Indigenous communities face a range of socio-cultural, social (familial relationships, peer associations), internal (beliefs, values and attitudes) and environmental (employment and poverty) influences that create tolerant attitudes towards drug using behaviours that ultimately have implications for children raised within those societies (Dembo 1982). The youth raised within these communities may, as a result, be exposed to a culture of origin that not only tolerates, but in many ways supports drug using behaviours for non-medical purposes. In such a setting, these tolerant attitudes can be culturally transmitted from one generation to the next, thereby further exacerbating the problem (Griswold-Ezekoye 1986).

Finally, this article discusses the implications of this research and suggests that the usefulness of the Indigenous culture of origin in prevention and intervention extends beyond the traditionalist Indigenous communities in remote areas, to also consider those living in urban areas (Brady 1995). This article advocates that in order to adequately address the early adoption of drug use amongst Indigenous Australians, the traditional forms of kinship, family and care, which underscore the Indigenous culture of origin, should be utilised in government sanctioned prevention and intervention services. However, such programs will require support without hindrance in order to be effective in making a positive difference. Such policies should account for the social dislocation of the Indigenous people of Australia and avoid perpetuating assimilationist discourses which revolve around the notion of ‘making them like us’ or ‘to think white, act white and be white’ (Edwards & Read 1992 cited in Briskman 2003:96). Accordingly, policymakers must aim to bridge modern ‘white’ drug prevention strategies with the traditions, language, beliefs and values of the Indigenous culture of origin.
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Appendix A

Diagnostic and Statistical Manual of Mental Disorders IV
Characteristics of Psychoactive Substance Abuse

1. Substance tolerance – Either need for increased amounts to achieve intoxication, or markedly diminished effect with continued use of the same amount of substance.

2. Substance withdrawal symptoms: Either (a) or (b)
   a. Two or more of the following, developing within several hours to a few days of reduction in heavy or prolonged alcohol use:
      i. Sweating or rapid pulse
      ii. Increased hand tremor
      iii. Insomnia
      iv. Nausea or vomiting
      v. Physical Agitation
      vi. Anxiety
      vii. Transient visual, tactile or auditory hallucinations or illusions
      viii. Grand mal seizures
   b. Additional substances are taken to relieve or avoid withdrawal symptoms.

3. Substance was taken in larger amounts over a longer period of time than was intended

4. Persistent desire or unsuccessful efforts to cut down or control alcohol use.

5. Great deal of time spent recovering

6. Important social, occupational, or recreational activities are given up or reduced because of substance use.

7. Substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely worsened by the substance

(American Psychological Association 1994)