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The prevalence of cognitive impairment in a rural in-patient substance misuse treatment programme

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Cognitive impairment is one factor known to affect people's ability to participate in substance misuse treatment because of the range of cognitive, behavioural and emotional problems such impairment can cause. Some of the behaviours described as common features of cognitive impairment, such as impaired self-monitoring and self-regulation and lack of initiative are seen in some treatment modalities to be causes and consequences of addiction thereby prescribing a moral rationale to behaviour that may have a physical cause. The aim of this study was to identify the prevalence of cognitive impairment in a rural Australian substance treatment in-patient population. The Addenbrook's Cognitive Examination – Revised (ACE-R) was used to screen consenting patients ($n = 50$). Six (12%) scores were less than or equal to 82 (moderate to severe cognitive impairment), and 20 (40%) were less than or equal to 88 (mild to moderate cognitive impairment). Statistical techniques were used to determine if cognitive impairment was related to different demographic variables. The tests showed that cognitive impairment was not related to age or gender, weakly related to level of education and strongly related to Indigenous status. For example, 82% of Indigenous clients had a score indicating possible impairment, compared to 28% for non-Indigenous. A significant number of people attending in-patient drug and alcohol treatment have some form of cognitive impairment that may affect their ability to participate in the treatment. Indigenous people in rural substance treatment services appear highly likely to have some cognitive impairment. However, further work is required to ensure the screening tool is appropriate for use with Indigenous Australians. Substance misuse treatment providers need to ensure treatment programmes are suitable for people with cognition problems.

Keywords: cognitive impairment; substance misuse treatment; screening; Indigenous Australians; universal design for learning

Introduction

Substance misuse treatment combines medical and psycho-social elements to support people to reduce or cease their substance use. Individuals tend to come to treatment settings when substance use has some type of negative consequences to their health and wellbeing (Klag, Creed, & O'Callaghan, 2006). However, that does not mean they come willingly, but may be directed by courts, employers or family members

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who recognise the problematic nature of the individual's substance use (Wild, Roberts, & Cooper, 2002). Typically, people in substance misuse treatment have multiple problems that can be both the cause of, and caused by, their substance use; and are more likely to have been in jail or other institutional settings than those without substance problems (Baldry, Dowse, Clarence, & Snoyman, 2010). Growing recognition of the range of problems many substance users face has led treatment providers to look at the context of treatment to ascertain if it is accessible and appropriate for everyone (e.g. Meyers & Smith, 1997; Wild, 2006). Cognitive impairment is one factor known to affect people's ability to participate in treatment because of the range of cognitive, behavioural and emotional problems such impairment can cause (Hensold, Guercio, Grubbs, Upton, & Faw, 2006).

Cognitive impairment is an umbrella term used here to refer to the impacts of acquired or traumatic brain injury, intellectual disability or Foetal Alcohol Spectrum Disorder (FASD). While each of these conditions can vary in severity and impact, they have similar broad effects on cognition (Tucker, Vuchinich, & Pukish, 1995). Cognitive impairment can be a hidden disability which, for example, affects encounters with people in their surroundings, and can lead to difficulties in relations and contacts with society (Strandberg, 2009). The effects of cognitive impairment are not always visible or obvious (Australian Institute of health and Welfare [AIHW], 2007); it affects intangible processes, such as thinking and behaviour (Langan-Fox, Grant, & Anglim, 2007). Often the person may have no physical impairment, but lacks insight into their own needs and behaviour. Consequently, they do not look like they need help and do not think that they need any help, so often they may not get any help (Mantell, 2010).

A high prevalence of substance use problems has been identified in cognitively impaired people. For example among people with intellectual disability, medical issues, such as a compromised tolerance to drugs, a tendency for self-medication and over-medication, has been identified (McGillivray & Moore, 2001). A study of adults with Fetal Alcohol Syndrome or FASD found a life span prevalence of 50% for confinement (in detention, jail, prison or psychiatric or alcohol/drug inpatient treatment) and 35% for alcohol and drug problems (Caley, Kramer, Robinson, 2005). Cognitive impairment can be acquired via a traumatic brain injury. Alcohol use is a frequent contributing factor in head trauma and a disproportionate number of individuals with alcohol use disorders report a history of head trauma (Bates, Bowden, & Barry, 2002). Heavy and prolonged alcohol use can result in alcohol-related cognitive impairment that has a slow rather than a sudden onset but with similar results to brain injury acquired in other ways (Bates et al., 2002).

Individuals with some form of cognitive impairment will typically experience one or more of the following: attentional dysfunction, lack of initiative, difficulty executing novel activities, memory impairment or loss, impaired organisational and planning skills, impaired self-monitoring and self-regulation, and an inability to benefit from experience (Langan-Fox et al., 2007). Further, those with some form of cognitive impairment are more likely to experience poor concentration, depression, emotional instability, irritability, impulsive or inappropriate behaviour and reduced ability to problem-solve and inflexible thinking (AIHW, 2007). These factors indicate that people with cognitive impairment are likely to experience difficulty engaging with and participating in substance misuse treatment that is predominantly based on cognitive and behavioural change activities. Further, some of the behaviours described as common features of cognitive impairment, such as poor

self-monitoring and self-regulation and dependence/lack of initiative are seen in some treatment modalities to be causes and consequences of addiction thereby ascribing moralistic explanations to behaviours that may be due to an impairment (Goddard, 2003; Hensold et al., 2006).

A study examining appropriate substance misuse treatment for people with cognitive impairment found that ideally a significant part of any intervention would take place in an inpatient facility to maximise the client's ability to learn and retain new information (Degenhardt & Hall, 2000). Another study suggested that people with comorbid cognitive impairment and substance use disorders require extended length of substance misuse treatment as well as specifically tailored interventions to address the cognitive deficits the impairment causes (Sacks et al., 2009).

Making treatment programmes longer is not the simple solution to making treatment accessible for people with cognitive impairment. The content and delivery of any educational or skills programme is critical in ensuring cognitive deficits are catered for. For example, practical demonstrations and concrete examples should be provided before theoretical concepts; opportunities to role-play and practice actions or responses to questions should be given; written material to support spoken information; and multiple repetitions of information and activities are all important strategies in delivering programmes to people with cognitive impairment (e.g. Rose & Meyer, 2000; Westwood, 2009).

Study context

A staff survey conducted in July 2011 in a rural NSW substance misuse treatment agency found that employees had little or no knowledge about the characteristics of cognitive impairment, could not easily identify cognitive impairment in patients and did not perceive cognitive impairment to be common in those patients they were working with. The agency had two residential treatment units, one providing short-term withdrawal treatment and one providing a six-month rehabilitation programme; and a community-based outreach programme. A substantial component of the treatment programme in both residential facilities was psycho-educational groups providing information and discussion about, for example, drug impacts and relapse prevention. These groups used written material and educational techniques potentially inappropriate for people with cognitive impairment. As part of a quality improvement programme, it was decided to identify the prevalence of cognitive impairment among patients accessing the agency's inpatient programmes to find out if there was a need to adapt usual treatment to better meet cognitively impaired patients' needs.

Method

The Addenbrook's Cognitive Examination – Revised (ACE-R) was chosen as a screening instrument after consultation with neuropsychologists because of the screen's ability to identify mild cognitive impairment affecting memory, attention/orientation, verbal fluency, language and visuo-spatial ability – critical aspects of learning, understanding and applying information (Mioshi, Dawson, Mitchell, Arnold, & Hodges, 2006). The screen consists of five components (maximum score for each component in parenthesis): Attention and Orientation (18), Memory (26), Fluency (14), Language (26) and Visuo-spatial (16). Summing these five components gives a total of 100. Scores at or below the cut-off of 88 are assessed as having a mild

cognitive impairment. Scores at or below 82 are assessed as having a moderate to severe cognitive impairment (Mioshi et al., 2006). The ACE-R surveys key aspects of cognition without requiring specialised test equipment or specialist professionals to administer it. The ACE-R tests the five areas of cognitive function using simple tasks rather than relying on self-report of memory and brain functioning (Mioshi et al., 2006). The screen takes about 20 min to administer and score, and a version adapted for use in Australia was used (ACE-R-AUS, 2004; Hodges, 2000).

Ethics

The study was approved by Charles Sturt University Human Research Ethics Committee (no. 2011/129).

Settings

This study was conducted in two in-patient substance treatment units in rural NSW. Both units provided voluntary treatment programmes for people over 18 years of age. One provided medicated withdrawal management with an average length of stay of 10 days and the other provided residential rehabilitation within a six-month programme. Patients of both units had the same demographic characteristics. Men comprised three-quarters of the patients, one-quarter were Indigenous Australians and over half had sought treatment for alcohol misuse. The remaining 40% of patients had sought treatment for cannabis or opiate misuse.

Participants and sampling

All patients in the two participating units were invited to participate in the study by the project worker. Participation was voluntary. The project worker made an appointment with patients interested in participating in the project. At the screening appointment, potential participants were given a copy of the information sheet, read the information contained within it and given the opportunity to ask questions.

Data collection

The screening tool was administered to consenting participants, the tool scored and the results reported to participants. The results of the screening tool were recorded in an excel spreadsheet. Each participant was identified by their medical record number. Fifty patients were screened with the ACE-R between 21 September 2011 and 25 January 2012.

In addition to the ACE-R scores, some demographic information was recorded: gender, age, Indigenous status and level of education. The level of education was written down as the highest education level achieved by the client. For the purposes of analysis, this was converted into effective number of full time years in education. In Table 1, level of education is written to reflect school year in order to make it easier to read. For example, a value of 10 corresponds to year 10. A value of 11 corresponds to either year 11 or year 10 + 1 year study in Technical and Further Education (TAFE) or other post school study. Level of education was recorded for only 45 clients, thus the other five records were excluded when analysing level of education.

Table 1. Summary of results for Indigenous status and level of education.

	Total ACE-R		Mild impairment		<i>p</i> -Value
	Median	<i>p</i> -Value	Score \leq 88	Score $>$ 88	
			Yes	No	
			<i>N</i> (%)		
All	90		20 (40%)	30 (60%)	
Indigenous status		0.0067			0.0036
Indigenous	84		9 (82%)	2 (18%)	
Non-Indigenous	91		11 (28%)	28 (72%)	
	Correlation	<i>p</i> -Value	Medians		<i>p</i> -Value
Level of education	0.465	0.002	10	10	>0.05

Data analysis

Only 6 of the 50 clients had an ACE-R score at or below 82 which indicates a high likelihood of cognitive impairment (for example, in the study reported in Mioshi et al. (2006), there was 100% likelihood of cognitive impairment). This sub-sample size of only six gives little power to find significant results. Therefore, the analysis was performed both directly on the whole sample as well as the proportion of clients with an ACE-R score at or below 88.

The total ACE-R scores for the 50 clients were skewed to lower values and thus not normally distributed. Similarly, the levels of education were not normally distributed. Thus, non-parametric tests (as opposed to tests based on normality) were preferred to do the analysis.

Firstly, a multivariate technique was used to analyse all variables simultaneously. Namely, backwards stepwise logistic regression (Manly, 2005, section 8.10) was used to determine if the proportion of clients could be predicted from the demographic variables: gender, age, Indigenous status and level of education. This was performed using PASW Statistics 17 (commonly called SPSS; SPSS Inc., 2009). Multivariate techniques can be difficult to understand; therefore, tests on the individual variables were also performed to better communicate the results. These tests were done using TIBCO Spotfire S+ 8.2 (TIBCO, 2010).

Analysis of the ACE-R total scores was performed using Wilcoxon rank-sum tests (Kanji, 1999, test 52) to compare the median score for the qualitative variables (Indigenous status and gender) and a Kendall rank correlation test (Kanji, 1999, test 59) for the quantitative variables (age and effective years of education). Analysis of the proportions at or below the 88 threshold was performed using Fisher's exact tests (Kanji, 1999, test 39) for the qualitative variables (Indigenous status and gender) and Wilcoxon rank-sum tests (Kanji, 1999, test 52) for the quantitative variables (age and effective years of education).

Results

A histogram of the total scores appears in (Figure 1. The median total score was 90. For the total score for the 50 clients, 6 (12%, 95% CI [5.0%, 25.0%]) were less than or equal to 82 (moderate to severe cognitive impairment), and 20 (40%, 95% CI [26.7%, 54.8%]) were less than or equal to 88 (mild cognitive impairment). [In the

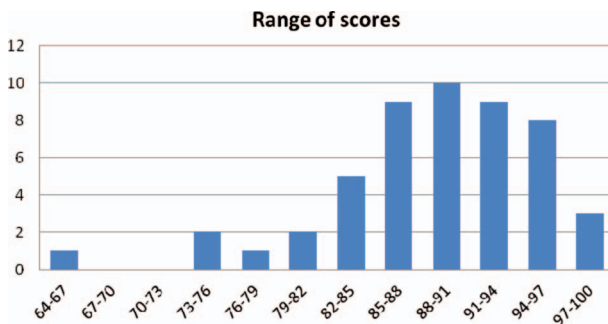


Figure 1. Histogram of ACE-R total scores.

histogram, scores on the boundary of a bar are placed in the bar on the left automatically by the S+ software package.]

Backwards stepwise logistic regression (starting with variables gender, age, Indigenous status and level of education) showed that the proportion of clients with a total score less than or equal to 88 was related to Indigenous status (change in log likelihood if removing the variable: $\chi^2 = 8.684$, $df = 1$, $p = 0.03$). Gender and age were not significant. At this cut-off, level of education was also not significant. However, using lower cut-offs, the level of education was significant (for example, the level of education is significant using a cut-off of 87; $\chi^2 = 4.821$, $df = 1$, $p = 0.028$). This indicates that both Indigenous status and level of education require further investigation.

Age and gender

All tests showed that the total ACE-R score and level of cognitive impairment were not related to age or gender.

Indigenous status

The median test score for Indigenous clients was lower than non-Indigenous clients ($Z = -2.7113$, $p = 0.0067$) (see Table 1) and there is a higher proportion of Indigenous clients with a score at or below 88 (82% of Indigenous clients had a score indicating possible impairment, compared to 28% for non-Indigenous) ($p = 0.0036$). Figure 2 demonstrates these differences graphically.

Level of education

There was a significant correlation between test score and effective years of education (Pearson's correlation coefficient: $r = 0.465$, Kendall's rank correlation: $\tau = 0.344$, $p = 0.002$). This shows that education level is related to the test score. The correlation is not strong though, so the median education level of those tests equal or less than the 88 cut-off and the median education level for those above the 88 cut-off were both equivalent to year 10. If a lower cut-off is used, there is a significant difference in medians (for example, with a cut-off of 87, there is a difference of one year: $Z = 2.0809$, $p = 0.0374$). Figure 3 reveals the effect. Above the cut-off of 88,

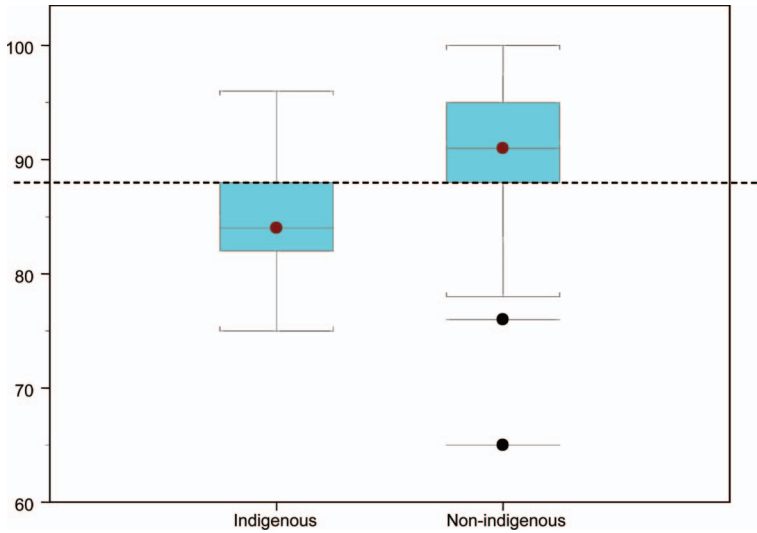


Figure 2. Box plots of total ACE-R score separated by Indigenous status. The dashed line corresponds to the cut-off of 88. The boxes correspond to the middle 50% of the scores for each group. The line and point in the middle of each box is the median. Outlying values (namely at 65 and 76 in the non-Indigenous group) are marked with a line and point.

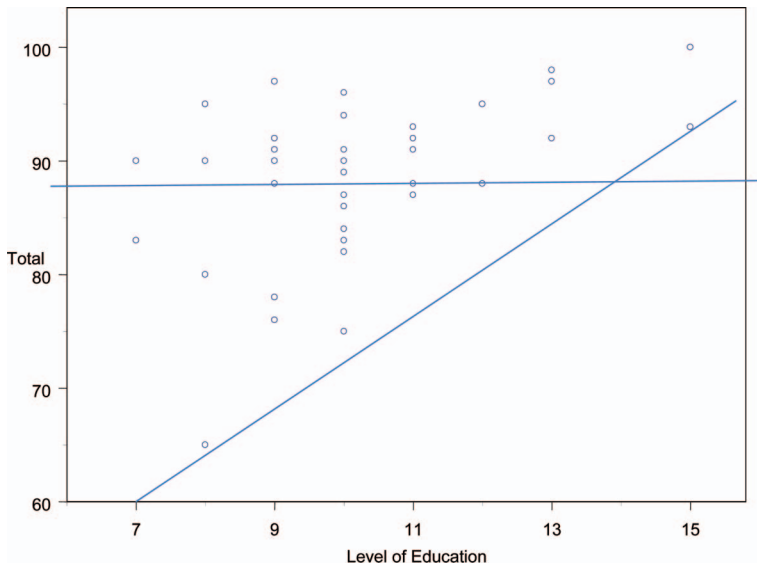


Figure 3. Total ACE-R vs. education level. The dashed line corresponds to the cut-off of 88. The solid line is the lower bounding lines for the scatter plot. That is, all the data points are above this line.

there is large variability in the levels of education and there appears to be no relationship. However, as scores drop below the cut-off (that is, less than or equal to 87), the variability and median level of education drop.

Indigenous status and level of education

A possible explanation of the above results is that the apparent cognitive impairment of the Indigenous group is due to lower education levels. To test that hypothesis, a Wilcoxon rank-sum test was used to test for an underlying connection between Indigenous status and education level. The test found no significant differences in the median education level between Indigenous and non-Indigenous clients (both medians were equivalent to year 10) ($Z = -0.5165, p = 0.6055$) (see Figure 4). Thus the apparent cognitive impairment of the Indigenous group is not due to the education level.

Discussion

The results of the ACE-R screening found that 40% of those screened were likely to have some form of cognitive impairment and 12% of study participants were likely to have a moderate to severe cognitive impairment. This finding has significant implications for the delivery of psycho-social drug and alcohol treatment as around half of the treatment population may experience difficulty understanding, remembering and applying information about drug and alcohol misuse to their own situation. Further, it is likely that this same group of people will experience barriers to participating in the daily routines of residential treatment and complying with directions from staff (Hensold et al., 2006; Mantell, 2010).

It is not surprising that level of education and cognitive impairment are related. Individuals with some cognitive impairment while younger are naturally less likely to complete school and other forms of education because of their inability to

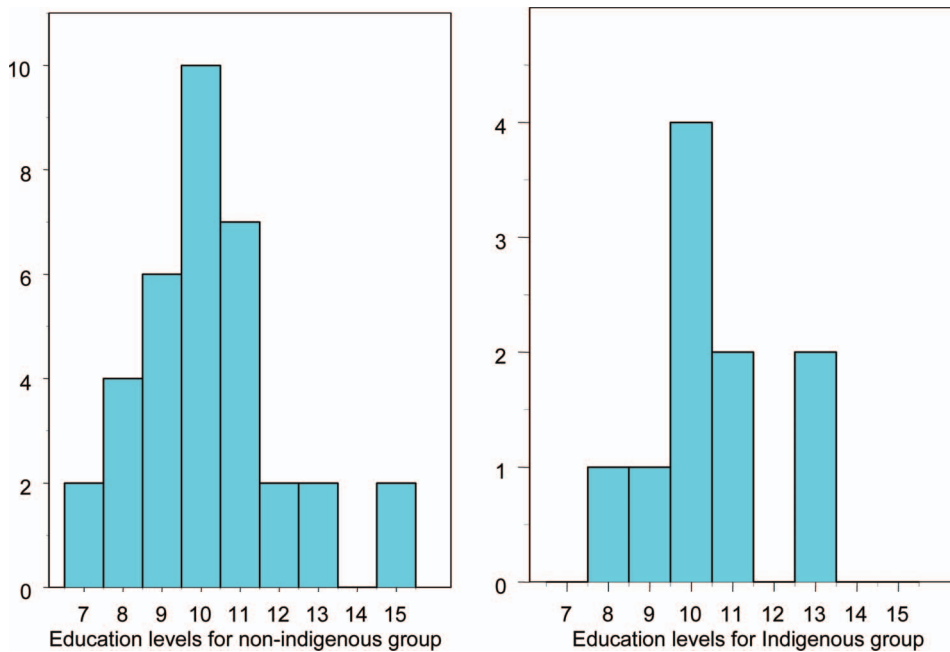


Figure 4. Education levels for non-Indigenous and Indigenous clients participating in the study.

understand and participate in classroom education (Sacks et al., 2009). One warning though, individuals who did not complete much education might score lower on the ACE-R test due to their level of education rather than cognitive impairment. The test involves reading, writing and simple arithmetic for example. However, all clients in this survey did have at least year 7 level of education so this is unlikely for this group.

In Figure 3, higher scores on the ACE-R test appeared independent of level of education. However, for lower scores, there was a noticeable connection to the level of education. In Figure 3, the lower bounding line is indicated as a solid line. By definition, no points are below the line. Above the line and below the maximum possible score of 100, there is a roughly uniform spread of points. To put it simply, the points in Figure 3 are all in the top left triangle. This observation is consistent with greater cognitive impairment acting as a barrier to completing education (with the bounding line roughly indicating the barrier).

Indigenous study participants were much more likely to record a score indicative of cognitive impairment than non-Indigenous study participants. The ACE-R has not been validated for use in Australian Indigenous populations and it may be necessary to make cultural adaptations to the test components. Further research is required to follow-up these results both in terms of cultural appropriateness of the ACE-R and the high proportion of scores below the 88 cut-off.

Age and gender were not found to be associated with cognitive impairment via the ACE-R. This is an important finding for drug and alcohol treatment providers because they cannot assume who is most likely to experience impairment. Women and younger people are just as likely to have problems with cognition as older men. Similarly, the level of education cannot be used to infer cognitive ability.

The people attending treatment in the participating units generally have extensive substance use and incarceration histories with lower than average educational attainment. These characteristics increase the likelihood of having cognitive impairment but the relationship is not clear. The cognitive impairment could have precipitated substance misuse or the substance misuse could have caused a brain injury either traumatic or from the substance itself. The high prevalence of substance misuse problems among people with cognitive impairment has been well documented (e.g. Sacks et al., 2009). However, there has been considerably less research into the prevalence of cognitive impairment among the substance treatment population and consequently limited information available about specific treatment methods and approaches likely to be effective. Rather, more general suggestions are made about needing to adapt and lengthen treatment to improve outcomes for people with cognitive impairment (e.g. Degenhardt & Hall, 2000; Sacks et al., 2009).

Screening to identify cognitive impairment seems to be the logical response and Sacks et al. (2009) suggest that routine screening of all patients for cognitive impairment is indicated to identify those who would benefit from modified treatment programmes. However, unless the screening makes a difference to the treatment provided it is of limited benefit to patients and would be costly in terms of agency time and resources. Instead, until treatment methods and outcomes for cognitive impairment are described in detail, universal design principles are proposed.

Universal design for learning principles endeavours to make environments, resources and education methods accessible for people with cognitive impairment (e.g. Rose & Meyer, 2000; Westwood, 2009). The same environments, resources and products are used for people without cognitive impairment. From a universal design perspective, the psycho-social components of the treatment programme would include skills

practice before theory, repetition and role play and written material to support spoken material for all patients. Outcomes of treatment as usual for people with cognitive impairment compared to people without are not available for this sample, nor are they reported for substance misuse treatment, in general. However, universal design for learning principles have been found effective in other settings with purposes similar to psycho-social substance treatment programmes. In an environment of high demand and limited resources, a one size fits all approach to treatment makes sense.

Limitations

There were only a small number of clients with moderate-to-severe cognitive impairment. Thus, generalisations about more severe cognitive impairment cannot be done using this sample, rather only cognitive impairment, in general. For ethical reasons, people were given the choice whether to participate or not and information was not collected on people who did not participate (only three people chose not to participate). Also, due to resourcing, tests were only performed on some days of the week – thus some people who stayed briefly were not tested. Hence, there is a sampling bias. If all patients of the treatment services were screened, a different prevalence of cognitive impairment may have been found.

The ACE-R has not been validated for use in the substance treatment population. However, it has been found to reliably identify cognitive impairment in the general Australian population (Mioshi et al., 2006). Given the statistical significance of the results and the large percentage of people who were screened at or below the cut-off of 88, the results of this study are strong even though the sample is small. However, further research with larger samples is required.

Conclusion

A significant number of people attending in-patient drug and alcohol treatment have some form of cognitive impairment that may affect their ability to participate in treatment. Substance misuse treatment providers need to ensure treatment programmes are suitable for people with cognition problems.

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Improving Access to Hard-to-Reach Services: A Soft Entry Approach to Drug and Alcohol Services for Rural Australian Aboriginal Communities

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Improving Access to Hard-to-Reach Services: A Soft Entry Approach to Drug and Alcohol Services for Rural Australian Aboriginal Communities

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Australian Aboriginal communities are concerned about drug- and alcohol-related harms in their communities. There are a significantly higher proportion of substance problems experienced by Aboriginal Australians than non-Indigenous Australians.

Ways to address these problems are limited by racial barriers to mainstream services, especially in the rural context. Soft entry was an approach designed to increase Aboriginal Australians' access to Drug & Alcohol (D&A) services. The approach was designed to put control over when and how D&A interventions were delivered in the hands of the community and individuals within it by giving them ready access to a human services worker with specialist knowledge. Quantitative and qualitative evaluation methods found that soft entry substantially increased the number of Aboriginal and non-Aboriginal women accessing drug and alcohol services. It fundamentally shifted the power relationship between counselors and community, providing opportunities to develop a non-stigmatizing trustful rapport to facilitate discussion of harmful substance use. The challenges for drug and alcohol

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counselors were the slow unpredictability of the approach and the need for highly skilled and responsive communication techniques. However, the factor most likely to improve access to services, once trust is developed, is regular and frequent attendance at the service delivery site.

KEYWORDS *Aboriginal, rural drug and alcohol services, access, stigma*

INTRODUCTION

Australian Aboriginal communities are concerned about drug- and alcohol-related harms in their communities. There are a significantly higher proportion of substance problems experienced by Aboriginal Australians than non-Indigenous Australians (AIHW, 2011; Brady, 2007). Aboriginal Australians are three times more likely to abstain from drinking alcohol compared to non-Indigenous Australians but also more likely to drink at levels likely to cause harm in both the short and long term (AIHW, 2011). There is minimal evidence how to effectively address substance problems experienced by Aboriginal individuals or communities (Gray, Siggers, Sputore, & Bourbon 2000). A history of racist intervention from state, church, and individuals that continues in the twenty-first century results in ongoing stigmatization of Aboriginal people and the difficulties they experience (Larson, Gillies, Howard & Coffin, 2007). For example, since White settlement Australian Aboriginal people have been dispossessed of their land and had children forcibly removed in an attempt to eradicate Aboriginal bloodlines and culture within the Australian population. These people came to be known as the Stolen Generations.

In 2009, Australia's prime minister made a public apology to those affected. In spite of this discrimination continues. In one part of Australia, the Northern Territory Emergency Response is a package of changes to welfare provision and law enforcement that targets Aboriginal communities. Further income management measures for those receiving public assistance will soon be implemented across disadvantaged communities (Macklin, 2011). These measures will disproportionately affect Aboriginal people and are a good example of ongoing institutionalized racism (ACOSS, 2010). Given these circumstances making a rural community-based drug and alcohol service delivered by a mainstream service, accessible for Aboriginal people was a challenge.

Social work is concerned with developing critical reflective practice that values context alongside evidence of effectiveness (Plath, 2006). This study was a way of critically reflecting on a specific practice context and approach currently outside the evidence base for drug and alcohol services. The soft

entry approach, where the D&A service was taken into community events and settings, was planned and implemented by drug and alcohol (D&A) counselors in a rural Australian community-based outreach drug and alcohol service. As well as the outreach program, the service provided inpatient withdrawal and rehabilitation programs.

The approach made sense to the D&A counselors who developed it. However, they wanted to know if it achieved its aim. The aim of the soft entry approach evaluated in this study was to find a way to facilitate rural Aboriginal people's access to drug and alcohol services thereby reducing the harms associated with problematic substance use.

This article outlines problematic substance use and treatment types, the need for drug and alcohol services in Australian Aboriginal communities and why Aboriginal people are described as a hard-to-reach population. The soft entry approach and the rationale for using it, is described in detail. The quantitative and qualitative evaluation methods and the findings are presented and the implications discussed.

PROBLEMATIC SUBSTANCE USE AND TREATMENT TYPES

Problematic substance use occurs when an individual is adversely affected by a substance. Adverse effects may be caused by the means of ingesting a substance, the quantity used; or the methods used to manufacture or procure it particularly if the substance is expensive and/or illegal. For example, there are endemic rates of Hepatitis C virus infection amongst Australian injecting drug users (Macdonald, Wodak, & All, 1997). The D&A field have specific approaches and interventions primarily based in positivist biomedical expertise (George & Davis, 1998). Common terms used to describe problematic use include misuse, risky or hazardous use, dependency, and addiction. Some of these terms relate to specific criteria used to identify a disorder according to the *Diagnostic and Statistical Manual of Mental Disorders-IV-TR*. Substance dependence is defined as a maladaptive pattern of substance use, leading to a clinically significant impairment or distress (American Psychiatric Association, 2000). However, substance use can be problematic because of the impact it has on a person's health, relationships, or finances without that person being dependent or addicted.

The most effective population approach to problematic alcohol use includes supply reduction by limiting the number of outlets and opening times (Berendts, 2004).

However, these strategies do not apply to illegal substances or prescription medications. Typically, the individual substance user is targeted for change with biomedical disease models of treatment (Vetere & Henley, 2001). Psycho-social treatment approaches range from self-help groups such as Alcoholics Anonymous supporting abstinence; through to harm

minimisation education and behavior change groups and counseling based on cognitive behavioral methods (e.g., Goddard, 2003; Edwards, 2002). Usually substance users are perceived to need information and education to manage their problematic substance use, higher levels of professional support at times when use is out of control, and medical treatment for withdrawal perhaps including drug replacement therapies such as methadone or Naltrexone (McKay, 2009; Goddard, 2003). Where these supports and therapies are provided and how substance users access them is rarely described.

NEED FOR DRUG AND ALCOHOL SERVICES IN AUSTRALIAN ABORIGINAL COMMUNITIES

In Australia racial stigma is a significant factor in Indigenous disadvantage demonstrated by the 17-year gap in life expectancy between Indigenous and non-Indigenous Australians. Extensive investigations into Aboriginal health inequalities consistently identify alcohol and other substance misuse as one of Aboriginal community's major health problems (Brady, 2004; Orford et al., 2005). The Royal Commission into Aboriginal Deaths in Custody report (1991) identified very strong links between alcohol abuse and premature death among Aboriginal Australians (Gray et al., 2000; Weatherburn, 2008).

D&A treatment and other types of human services are mostly delivered by mainstream organizations staffed with non-Indigenous health workers. Cultural incompetence and history of racist intervention is perceived to be significant factors limiting access to care from these services for Aboriginal people. Access to treatment has been identified as the most significant factor in reducing drug-related harm for disadvantaged populations (Swift & Copeland, 1996). However, reports about drug treatment outcomes for Aboriginal Australians are minimal but generally reflect either limited utilization or few treatment completions (Gray et al., 2000; Gray, Siggers, Atkinson & Wilkes, 2007).

Aboriginal organizations have tended to adopt the Western medical model by referring to alcoholism or substance abuse as an illness or disease. It has been suggested that the disease model is inappropriate, because there is no Aboriginal concept equivalent to the Western notion of dependence or addiction as a disease-like condition (Siggers & Gray, 1998). In approaches to health care in general, holistic understandings that include social, emotional, cultural, and spiritual well being as well as physical health are preferred by Aboriginal Australians. In this way, stability and strengths are built upon, in recognition that gains in any area affects the whole person, their family, and their community (Garvey, 2008; O'Donohue, 1999).

Australian Aboriginal culture is collective in nature and values ongoing connections to land and ancestors. It makes sense to suggest an approach

to problematic substance use based on a collective understanding of family and community. However, the cultural obligation and expectation to help and support members of kinships who may be in trouble poses numerous challenges for Aboriginal communities, such as the rules of who should and should not intervene, dependence on family members, and difficulties for communities in sharing a united view to stand up to drinking (Brady, 2004; Orford et al., 2005). No one, Aboriginal or not, really knows how to approach substance problems in a way that is both culturally appropriate and effective.

HARD-TO-REACH POPULATIONS

Aboriginal Australians are overrepresented in all the measures of poor life chances and negative life experiences (Awofeso, Brooklyn, & Williams, 2010). Change methods or interventions have to be appropriate for the population they are designed to assist. Human service interventions have been found to be more effective if designed specifically for the target group (Albarracin, Gillette, Earl, Glasman, Durantini, & Ho, 2005). Stigmatized or marginalized populations, the focus of change efforts, are frequently described as “hard to reach” (e.g., Freimuth & Mettger, 1990).

Hard-to-reach populations may be unable to access services because of race, age, physical or emotional capability, income, language, or lack of other resources (Flanagan & Hancock, 2010; Bender et al., 2007). Some services may have referral or service criteria or operating procedures such as opening hours that exclude people (Flanagan & Hancock, 2010; Allan, Ball, & Alston, 2009). Some populations may prefer to remain hidden because they are engaged in illegal activities; or do not perceive a need for human service intervention (Bender et al., 2007; Wells, Klap, Koike, & Sherbourne, 2001). Others may have experienced human services interventions and found them punishing, controlling, or irrelevant to their needs (Barlow, Kirkpatrick, Stewart-Brown, & Davis, 2005).

Regardless of the reason for being called “hard to reach” the term clearly locates the problem with the group rather than the service provider (Duncan, White, & Nicholson, 2003). For example hard to reach groups have been labeled “obstinate, recalcitrant, chronically uninformed, disadvantaged, have-not, illiterate, malfunctioning, and information poor” (Freimuth & Mettger, 1990, p. 323). More recently the term identifies marginalized target groups of human services, particularly in health care (Flanagan & Hancock, 2010). The term “hard to reach” reinforces stigma, maintaining the view of that group as deficient or deviant in spite of statements, such as service aims, to the contrary (Bender, 2007).

Some problems such as mental illness and substance misuse are also stigmatized (Andrews, 2008). People experiencing chronic mental illness

and/or substance dependence or addiction are more likely to be unemployed, at risk of homelessness and personal violence, and have poor physical health (Degenhardt & Hall, 2000, Greenfield, Weiss, & Toker, 1995). Treatment services for mental illness or substance problems have been described as using processes that increase stigma making the target population less likely to use them (Link & Phelan, 2001). In particular the use of power in decision making by health services staff has been challenged as paternalistic and arrogant, reducing any therapeutic component (Glover & Momenzadah, 2001).

The therapeutic component is frequently secondary in consideration of human services methods and techniques. Compassion and care for humanity, particularly the spiritual and family dimensions of health important to Indigenous peoples, has been found lacking in Western medicine (UK Department of Health, 2009; Youngson, 2008).

A concern for applying evidence and minimizing risk to clients, and to organizations, has led to the development of assessment tools, diagnostic and risk criteria, and manualized treatment for specific problems (Gibbs & Gambrill, 2002; Donzelot, 1997). This technical approach, common in drug and alcohol treatment, has attempted to put some rational, controlled, and standardized strategies in place to deal with complex human problems (Bore & Wright, 2009; Gray, 2008). However, while directing the human service worker, they limit client self determination and decision making, critical goals of human services action (Ife, 1997). In this context it is more useful to describe human services as "hard-to-reach services," locating the problem of access and effectiveness with the service providers rather than the potential service users.

In the rural setting, where human services delivery is constrained by workforce shortages and variable and changing need for care, services are more often than not hard to reach. With gaps and duplications in services and a population who tend to be poorer, less healthy, and more likely to be using substances at harmful levels (Warner & Leukefeld, 2001; Vinson, 2004), rural drug and alcohol services are in high demand. Services to rural Aboriginal people face all these constraints as well as consequences of racism that suggest existing services will not be used (Gulliford et al., 2002) and are likely to have poorer outcomes when they are used (Andrews, 2008).

THE SOFT ENTRY APPROACH AND ITS RATIONALE

The aim of the soft entry approach was to increase the use of supplied drug and alcohol services in a rural location in central west New South Wales by being present at Aboriginal community events, groups and gatherings and talking about harmful substance use with community members whenever possible. The approach was designed to put control over when and how D&A interventions were delivered in the hands of the community and

individuals within it by giving them access to a human services worker with specialist knowledge. A diagnosis, referral, or assessment of need was not required. The approach also offered the possibility of moving non-treatment seekers, who friends or family had identified as having a substance problem, into services to reduce their substance use.

The approach was developed by the D&A counselors because of high numbers of Aboriginal people coming into the agencies residential treatment programs who were not followed up in the community. Many Aboriginal people referred in the community, particularly by criminal justice agencies, did not turn up for their appointments. The counselors perceived usual pathways into care—formal referrals, phone calls, and appointments for one-on-one counseling in health care facilities—to be hard entry points to D&A services that relied on the individual actively seeking formal intervention.

To initiate the soft entry approach the D&A counselors had to be invited to participate by the Aboriginal organization holding an event to ensure they were vouched for by community leaders. The D&A counselors were directed by the Aboriginal organization about the extent of their involvement, for example where and when to go, how often and for how long to participate in any gathering including on weekends and overnight camps. The D&A counselors were determined to take every opportunity to talk to participants about harmful substance use in general and to respond to enquiries and questions about themselves, their role and substance use concerns when asked. Planned action included making referrals or agreeing to follow-up later with information, counseling, or support to individuals with substance problems or their family members.

The approach was developed by a combination of theoretical approaches in drug and alcohol treatment, counselors' experiences of rural D&A service delivery, and willingness of Aboriginal Community Controlled Health Services (ACCHS) to include non-Aboriginal drug and alcohol counselors into their activities. The theoretical approaches included motivational interviewing techniques around stages of change (e.g., Dunn, Deroo, & Rivara, 2001).

Motivational interviewing (MI) using stage of change concepts is a brief approach (1 to 4 sessions) designed to mobilize people to initiate behavior change, and (frequently) to become engaged in more extended treatment (Bellack, 2007; Dunn, Deroo, et al., 2001). However, an important factor shaping the soft entry approach was evidence that the therapeutic relationship is consistently identified as the critical factor in supporting and maintaining change (Moore, 2008; Carey, Leontieva, Dimmock, Maisto, & Batki, 2007; Kagan, 1973). Creating opportunities to develop a non-stigmatizing trustful rapport to facilitate discussion of harmful substance use was a key aim of the approach.

The D&A counselors experience and anecdotal reports of community need and preferences was important in developing the soft entry approach. Issues identified by the D&A counselors included that usual treatment was

not meeting all identified needs. For example, family and community members described concerns about nontreatment-seeking individuals. Individuals leaving the agency's inpatient D&A treatment (medicated withdrawal and residential rehabilitation) were frequently returning to families with complex problems including hazardous D&A use.

Individualized treatment was reportedly not meeting family needs although many welfare services were engaged with some families. The D&A counselors described people referred for counseling in traditional health center settings not turning up for their appointment. Many of the referrals came from criminal justice and child protection settings. An analysis of the agency's data identified referral source was not significant in treatment completion once an individual was in treatment (Allan & Kemp, 2011). However, the D&A counselors perceived that individuals referred for counseling did not turn up because they did not want to reduce or stop substance use but were forced to make appointments, and/or they were fearful of the counseling process.

The ACCHS's identified racist stigma and previous damaging experiences as issues related to Aboriginal people's reluctance to attend mainstream drug and alcohol services. Concerns about non-Indigenous workers reporting unnecessarily to agencies of control such as child protection authorities or police were identified as barriers to service access. Residential withdrawal and rehabilitation services were identified as accessible although usually not local. However, community support once back at home was a key problem. For example an ACCHS CEO stated, "We have 100% success rate of getting people into rehab. We have 100% fail rate at keeping them sober when they get home."

Mainstream community-based service providers' expectations for referral and contact were described as barriers for many Aboriginal people. For example, the need to start from a position of trust that a service could be helpful, to ring up and make an appointment and turn up to a one on one discussion with a stranger were identified by the ACCHSs as challenging and potentially culturally inappropriate.

While it was acknowledged that confidentiality and separation from family and community that mainstream services provided was ideal for some Aboriginal people, the soft entry approach offered an alternative. The critical aspects of the soft entry approach that appealed to ACCHS workers were the low key nature of the approach in a comfortable and community-controlled setting.

METHOD

Practice settings and practice experience are important sites for research. Those implementing interventions are the ones most likely to have an impact

on community problems compared to clinical trials in narrowly defined populations (Carroll & Rounsaville, 2007). However, rigorous and valid ways of evaluating the soft entry approach were challenging to identify. One site where soft-entry was being used and where the ACCHS agreed to support an evaluation and act on recommendations from it was chosen as a study site. Similar to an action research approach the desired outcome of the evaluation was to influence practice. Thus, two key elements in the project were a focus on change and the involvement of those who were intimately involved in the issue being researched (Wadsworth, 1997). This approach is particularly relevant for “reflecting on professional practice and for trying out alternative practices to improve outcomes” (Schmuck, 1998, p. 29).

In the study site the D&A counselors provided soft entry services via the ACCHS. The counselors also provided usual care (Smart Recovery groups, one on one counseling, and information and referral to inpatient care) to those people referred by other agencies including health services and criminal justice services or who contacted the agency directly.

The counselors were trained and experienced in brief interventions, motivational interviewing, and group work. The counselors’ past work included domestic violence, child protection, youth homelessness, nursing, and inpatient D&A treatment. At the start of the project the counselors had minimal experience working with Aboriginal communities or organizations. However, all had supported Aboriginal individuals within the drug and alcohol service or in previous positions and had varied experiences of success. Finding ways to close the gap between Aboriginal and non-Indigenous life expectancy was high on the national agenda. However, ways to work effectively with Aboriginal people were undocumented. All participating counselors were committed to addressing substance use in Aboriginal communities and valued the opportunity to trial and evaluate a practice approach.

The community profile (Table 1) shows that the study site had a higher proportion of Aboriginal people residing within the location than the national average. Because of this there were a number of community organizations and groups specifically for Aboriginal people. There was also an Aboriginal community perception (from these organizations) of a high degree of need for D&A interventions.

The activities where soft entry was used were all run by one ACCHS with a focus on family violence. The activities included an Aboriginal women’s sewing group run over twelve months with resources and sewing

TABLE 1 Soft Entry Site Community Profile (Australian Bureau of Statistics, 2006)

Total population of study site	9,361
Total Indigenous population of study site	629
Indigenous population % at study site	6.7
Indigenous population % nationally	2.5

teacher provided by a government vocational education provider; home visits with the ACCHS Family Worker; three family camps for two or three days each, held either on weekends or during school holidays; several community barbecues with information stalls and children's activities; and casual attendance, when invited, at other groups. These included an Aboriginal childcare course, a men's group and a women's refuge (homelessness shelter) group. One or two D&A counselors attended each event and the same counselor attended all sessions of ongoing groups such as the sewing group.

Both qualitative and quantitative data were collected to inform the evaluation. Three methods were chosen. The first was a count of the number of contacts made during soft entry events over an 18-month period compared to the previous 18 months. The number of contacts from the previous 18-month period was counted retrospectively from the agency's monthly reports of service provision activity and checked against the agency's treatment episode database. An evaluation was conducted of a participant's perceptions of the value of the counselor's involvement in the sewing group ($n = 16$). D&A and ACCHS workers ($n = 5$) were interviewed about the experience of applying the approach.

DATA COLLECTION AND ANALYSIS

The D&A counselors involved in the project were asked to count how many brief interventions, groups, or counseling sessions they had provided during soft entry contacts and usual care over an 18-month period (July 2008–December 2009). Three D&A counselors providing soft entry services in the study location were asked to record in their work diaries how many supportive or brief intervention contacts they had provided to men and women during each group or community event that were about substance use and/or its effects.

Counselors were asked to make the diary entries immediately after the group had concluded. Counselors were asked to identify how many of the contacts were with Aboriginal people either by asking them or asking the group organizers. The total contacts for the month were collated and recorded in the agency's monthly reports. Usual care services were recorded in the agency's referral and treatment database and located for the data collection by a postcode search.

In November 2008 participant evaluations were distributed during the four women's groups held that month. The time was chosen because the groups had been established for sometime including regular attendance by the D&A counselors and group numbers were increasing. The evaluations asked group participants five questions about having a drug and alcohol counselor attend their group (see Appendix).

Interviews were conducted with the three D&A counselors implementing the soft entry approach and two Aboriginal health workers between May 2008 and February 2009. Interview participants were asked how they initiated discussion about D&A issues, the types of things that were discussed and the responses they made. Participants were also asked what was easy or difficult about the approach and their perceptions of its value. The interviews were transcribed verbatim into word documents. NVIVO 7 (QSR International, Vic, Australia) was used to code the interview data into actions—descriptions of the soft entry approach and its impact and techniques and skills required; benefits—positive statements about the approach; and problems—negative statements about the approach. Consistent with the exploratory action approach, the interviews sought to define and describe the details of soft entry work in the rural Aboriginal community setting so it could be reproduced by others.

FINDINGS

Quantitative Data

Between July 2008 and December 2009 D&A counselors attended 58 soft entry events (Table 2). A total of 298 people were engaged in conversation about their own or another's substance use. Of these 149 were Aboriginal and the majority were women. This is 296 more contacts, and 123 more contacts with Aboriginal people, than the previous 18 month period. For the soft entry event group events and community events, there was an average of 6.1 and 5.7 (respectively), drug and alcohol contacts per event. For the Smart Recovery groups, the average number of participants is lower (3.9 for 07–08 and only 2.7 for 08–09).

Many of the contacts are with the same person on a number of occasions. The records are unable to identify neither how many individuals were provided with drug and alcohol services nor how many of those attending the events did not access the counselors. However, there were many more contacts provided in the soft entry events than the usual treatment services and overall the participation rate of Aboriginal people (50%) is considerably higher than the proportion of the population.

Even though the soft entry services were provided from Aboriginal organizations and within Aboriginal community events, a large number of contacts were with non-Indigenous people.

The frequency data in Table 3 shows the unintended consequences of the soft entry approach. The approach increased both the number of non-Aboriginal people accessing D&A services and the number of usual care services supplied in the community compared to the previous 18-month period. Simple statistical analysis found changes in the proportion of men and women and Aboriginal people varied over the two time periods. There

TABLE 2 Number of Events Attended and Contacts Made

Service type	2007–08 No. of participants (Aboriginal)		2008–09 No. of participants (Aboriginal)	
	Male	Female	Male	Female
Soft entry group event (<i>n</i> = 42)	0	0	0	255 (133)
Soft entry community education and information events (<i>n</i> = 7)	2 (2)	8 (8)	14 (6)	16 (5)
Soft entry family visits (<i>n</i> = 12)	0	0	0	13 (5)
Total soft entry	2 (2)	8 (8)	14 (6)	284 (143)
Smart recovery groups 07–08 (<i>n</i> = 11) 08–09 (<i>n</i> = 24)	31 (unknown)	12 (unknown)	25 (unknown)	40 (unknown)
Counseling	20 (10)	8 (6)	2 (1)	7 (4)
Referral to inpatient services			2 (1)	3 (2)
Total usual services excluding Smart Recovery	21 (10)	8 (6)	4 (2)	10 (6)
Total all service types excluding Smart Recovery	53 (12)	28 (14)	18 (8)	314 (149)

has clearly been a large increase in the number of females. However, there is also a decrease in the number of males for the non-soft entry services. The decrease is very sharp in counseling services. For the Smart Recovery groups there is a modest decrease, at the same time females have increased dramatically in those groups. Soft entry was very successful in increasing the number of times drug and alcohol advice, support, and information was provided.

However, it may have reduced service availability for men and for people seeking counseling in the study site.

Evaluation Responses

All of the evaluation responses (*n* = 16) provided by members of the women's sewing group were positive. They described the counselor as approachable, sincere, friendly, and easy to talk to. The types of information and support they received were described as "ways to talk to family about drugs," the effects of drugs and alcohol, "what happens in rehab," depression, dual diagnosis, and teenage drinking problems.

No problems related to a D&A counselor attending the events were identified.

TABLE 3 Proportion of Men Participating in Drug and Alcohol Services

Service type	2007–08 No. of participants (Aboriginal)		2008–09 No. of participants (Aboriginal)	
	Male	Female	Male	Female
Soft entry group event ($n = 42$)	0	0	0 (0% men)	255 (133)
Soft entry community education and information events ($n = 7$)	2 (2) (20% men)	8 (8)	14 (6) (46.7% men)	16 (5)
Soft entry family visits ($n = 12$)	0	0	0 (0% men)	13 (5)
Total soft entry	2 (2) (20% men)	8 (8)	14 (6) (4.7% men)	284 (143)
Smart recovery groups	31 (72.1% men)	12	25 (38.5% men)	40
07–08 ($n = 11$)				
08–09 ($n = 24$)				
Counseling	20 (10) (71.4% men)	8 (6)	2 (1) (22.2% men)	7 (4)
Referral to inpatient services			2 (1) (40% men)	3 (2)
Total usual services	51 (10) (71.8% men)	20 (6)	29 (2) (36.7% men)	50 (6)
Total all service types	53 (12) (65.4% men)	28 (14)	43 (8) (11.4% men)	334 (149)

Several respondents noted that the environment of the groups were a contributing factor in facilitating conversation with the drug and alcohol counselor. It is possible that group participants who did not want the drug and alcohol counselor to attend the group or did not perceive a benefit did not complete an evaluation form or may have discontinued attending the group. As attendance records were not kept it is not possible to identify if anyone stopped attending.

Interview Findings

The interview participants spoke positively about the soft entry approach and its ability to provide access to drug and alcohol counseling in a non-traditional setting. Interview participants were asked to describe the soft entry approach including positive and challenging experiences in implementing it.

Both ACCHS workers and drug and alcohol counselors identified that the approach assisted with establishing trust and rapport with community members. The soft entry approach was described as Aboriginal communities teaching drug and alcohol counselors how to provide services at a community level;

There's a lot of mistrust, in Indigenous communities where they've kind of been promised the world and given nothing or just screwed around with. As things change and we're getting more and more involved in Indigenous communities, we're finding we have to look to them for how we work in their communities . . . because communities have been burnt so many times by these people coming in and offering the holy grail and nothing ever comes out of it. (Drug and alcohol counselor)

The drug and alcohol counselors filled a gap in existing services for the host organization;

This has given us a service we didn't have in this organisation. We don't have funding for drug and alcohol but this way we can provide a service from our organisation, as part of our organisation, for our community who wouldn't have one otherwise. (ACCCHS Manager)

The drug and alcohol counselors described the approach and identified the skills required to carry out the soft entry approach;

At a camp, at first, I sit down and have a chat with them and we'll have a yarn. We'll have a yarn about football or something. At the beginning—and I tell them who I am. You know? I tell them I'm [name], I'm drug and alcohol, and then I leave it, leave it at that. I don't go any further. I

don't even tell them "I'm here if you want me." Then I tell you, when I'm not with the group they'll come over and have a, maybe a two minute chat and the next time a longer one. And, as they get to know me and as they feel more comfortable, they talk about their brother's problems or their grandchildren's problems and then usually their own. (Drug and alcohol counselor)

Community members told others about the drug and alcohol counselor's role and that she could be trusted. For example "One person would introduce me to someone else and say 'you can talk to her about drinking and drugs' so it rolled on and on" (Drug and alcohol counselor); "They know her [D&A counselor] now, they know why she's there and that she can be trusted" (ACCHS worker).

Being available and prepared to talk on a regular basis was important. However, counseling skills were also identified as critical to the soft entry approach:

You have to be quite confident and assertive in talking about substance use when the topic comes up; to provide advice or support as a counsellor not just a chat. I could have just chatted and done sewing for a year and done nothing about drugs and alcohol, so it's [soft entry] casual but it's not simple. (Drug and alcohol counselor)

Benefits of the Approach

Drug and alcohol counselors described the approach as reducing barriers to treatment programs. For example;

So it's really, you know, creating false barriers for people when you say, "I only deal with alcohol or I only deal with . . ." Our programs are holistic, so they can meet the needs of a client using any sort of substance, so the basic principles are the same, just the drug is different. We can get them whatever treatment they need, counselling, rehab, anything, once we've made that first contact. (Drug and alcohol counselor)

Lots of people, women, talked to me about their families, themselves, all sorts of problems they faced. I don't think they would have gone to counselling. So yeah I reckon it makes services easier to access because you're there, on the spot. (Drug and alcohol counselor)

The soft entry approach was also described as providing benefits to the drug and alcohol counselors applying it;

My way of thinking was, well, what better way to actually get out there and get to know the people than to spend the time with them, without

pushing an agenda. You're just there helping out as part of the whole field. So, that is its own breath of fresh air, being able to work within that context. (Drug and alcohol counselor)

Problems Experienced With the Soft Entry Approach

There were some problems experienced with implementing the soft entry approach. These were generally around organizational, funding, and policy requirements. The approach was described as slow and unpredictable. For example, "It's important to be there every week, regular, reliable, even if nothing happens, you still go every week so when they're ready you're there" (Drug and alcohol counselor).

It was also described as "outside the treatment tradition" and funding guidelines. For example, the funding to run the women's sewing group ran out. The group was still able to meet at the same time and place. However, they lost their sewing teacher, the sewing machines, and the focus of the activity:

We won't know about our funding until mid-May now, which we were supposed to know by now, so, you know, effectively, we might have enough money to keep us going, if we don't get re-funded, till April. So, you know, we're in that situation of what's the future hold for us? It hasn't stopped us in delivering our services, that's 100% go ahead, and even as far as planning for the second half of this year and into the future, we're still going ahead with that, because you can't sit back and wait and see, because you lose impetus. (ACCHS Manager)

The drug and alcohol counselors also raised concerns about funding and policy guidelines in relation to soft entry work. For example

We're funded to work with men, women, and Indigenous people so it's pretty broad and I think we're fitting in with that but there's no evidence for it you know. That's what they'll say, "there's no evidence for it" so it's a risk. (Drug and alcohol counselor)

DISCUSSION

The evaluation demonstrated that the soft entry approach achieved the aim of making drug and alcohol services easier to reach for Aboriginal people, especially women, in the study location. The location of the D&A counselors within and during other community events provided easy access to people who identified they would not have otherwise tried to access drug and alcohol services. The participant evaluations indicate the soft entry approach

reduced the stigma associated with conventional non-Aboriginal services and with drug and alcohol services in general. The three types of data provided consistent findings about the ability of the soft entry approach to increase the amount of drug and alcohol service provided in a way that was acceptable to those receiving them.

The soft entry approach fundamentally shifts the power balance from counselor to community. Individuals could choose when and how much contact with drug and alcohol counselors they required. While this may be also true of conventional services, removing the need to make appointments that fit with the counselor's or agency's schedule is a critical difference in the relationship between worker and client. Enhanced client self determination and decision making (Ife, 1997) was an important goal facilitated by the soft-entry approach and noted in the participant evaluations. Given Australian Aboriginal people's past experiences of human services, having choice over when and how services are provided is a critical ethical issue.

Aboriginal communities include significant number of people who are highly disadvantaged and with limited resources for health and well being as a result (AIHW, 2007; Allan et al., 2010). The soft entry approach provides easier access to care than traditional center-based models. The soft entry approach addressed potential barriers of age, physical or emotional capability, income, or lack of other resources (Flanagan & Hancock, 2010; Bender et al., 2007). In addition referral or service criteria or operating procedures that exclude people were removed, provided they could attend community events (Flanagan & Hancock, 2010; Allan et al., 2009). Often attendance was facilitated by transport being provided.

Further, for those who may have experienced human services interventions and found them punishing, controlling, or irrelevant to their needs (Barlow et al., 2005), the available service could be tested and then used when, and for as long, as the group participant wanted. However, a critical component of the approach, attending the same town regularly every week, may have improved access to services significantly. The D&A counselors attended the study site more frequently and regularly during the study period than they had in the previous 18-month period. This increased the amount of services provided to and used by Aboriginal and non-Aboriginal people. Services were also provided in a number of locations over the time period. Usually it seems important to provide services consistently from the one location so people know where to find the service provider. However, the soft entry approach differed in that the counselors made themselves available in several locations so they were where the community was.

The population of people receiving services via soft entry was considerably different to the demographic profile of the treatment population. Typically men receive 65% of all drug and alcohol services (AIHW, 2007; Acharyya & Zhang, 2003). However, the treatment population does not necessarily indicate the type or number of people who may want or need some

type of drug and alcohol support or information. It may be that women are most in need of contact with drug and alcohol services and the soft entry mode of service delivery provides that access. Since there is a strong relationship between family violence and substance problems it could be assumed a need exists even though it is not reflected in treatment data. Improved access is measured by increased use of services (Gulliford et al., 2002), which is clearly demonstrated in this study.

The approach was controlled by the ACCHS and therefore the community rather than timing and frequency of visits being decided by the D&A agency. The role of the ACCHS in facilitating access to the service assisted in developing trustful rapport between D&A counselors and community members. As the therapeutic relationship is consistently identified as the critical factor in supporting and maintaining change (Moore, 2008; Carey et al., 2007; Kagan, 1973), establishing that relationship via a respected and trusted organization in the Aboriginal community provides a solid base on which to develop the therapeutic relationship.

LIMITATIONS

There are a number of limitations in this study. While human service interventions have been found to be more effective if designed specifically for the target group (Albarracin et al., 2005), this study cannot demonstrate improved outcomes in relation to substance use for participants because of the soft entry approach. Drug and alcohol counselors expressed concern about not having evidence of improved outcomes related to the soft entry approach. Given they work within the medically oriented, rational, and technical field of drug and alcohol treatment, their concern about having an argument for why and how soft entry works is well-placed. Their concern also indicates that at this stage, soft entry does not have a legitimate knowledge base for practice (Gibbs & Gambrill, 2002), even though this study demonstrates a critical appraisal of the approach (Plath, 2006).

The evaluation opportunity came after the soft entry approach had been planned and implemented. There was no consideration of the ways the approach was outside the record keeping tradition as well as the treatment tradition. Interviews with community members would have provided useful information about their experiences of soft entry and if they perceived it as different to routine drug and alcohol counseling or other types of human services. However, the ethics approval did not include this data collection method and a variation was not sought.

The quantitative data are weak. It shows a high number of contacts compared to the previous 18-month period. However, more detail about people attending the events to identify who and how many people did

not access the service would be useful. A more rigorous analysis could be conducted if individuals who used the service on a number of occasions could be identified. The quantitative results showed that a large number of non-Indigenous people access services from Aboriginal service providers. This cannot be explained by the current study.

CONCLUSION

Now that the soft entry approach has been described and found to increase the number of Aboriginal women accessing drug and alcohol services, an intervention trial with experimental or quasi-experimental design could provide evidence about whether the approach improves effectiveness of D&A services. The approach made the D&A service accessible for both Aboriginal and non-Aboriginal women. It fundamentally shifted the power relationship between counselors and community, providing opportunities to develop a non-stigmatizing trustful rapport to facilitate discussion of harmful substance use. The hard-to-reach service was easier to reach.

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APPENDIX: GROUP EVALUATION SEPTEMBER 2008

Michelle is employed by Lyndon Community as a drug and alcohol worker. This year Michelle has been attending your sewing group regularly. To help us improve services and plan for next year can you please answer the following questions? This survey is confidential and you do not need to write your name on it.

1. What has been good about having Michele in your group?
2. What types of things have you talked to her about?
3. Can you describe any drug and alcohol information Michele has given you?
4. Were there any problems caused by having Michele in your group?
5. Can you list other groups Michele could go to or other ways she could support your community?

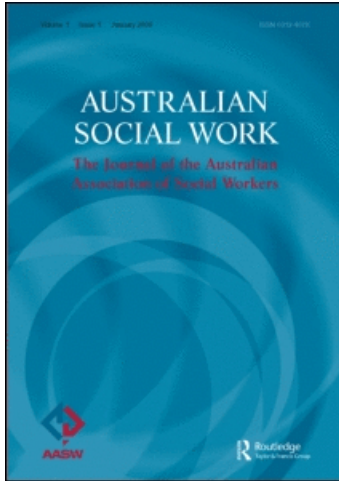
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Aboriginal and Non Aboriginal Women in New South Wales Non Government Organisation (NGO) Drug and Alcohol Treatment and the Implications for Social Work: Who Starts, Who Finishes, and Where Do They Come From?

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Abstract

Limited access to care is frequently identified as a reason for poor health in Indigenous communities. This study aimed to identify the proportion of Aboriginal women accessing mainstream non government organisation (NGO) drug treatment in New South Wales (NSW) compared to non Indigenous women. Statistical analysis of two NGO subsets of the Australian Alcohol and Other Drug Treatment Services National Minimum Dataset (AODTS–NMDS) for years 2005 to 2007 was conducted. A statistically significant relationship was found between gender and Indigenous status ($\chi^2 = 4.582$, $df = 1$, $p = .001$) in the two stages of analysis. Among NSW Aboriginal people who have accessed episodes of drug and alcohol treatment in the NGO sector, there is a significantly greater proportion of females versus males (37%F vs 63%M, $n = 3,080$ episodes) compared to the non Indigenous service users (29%F vs 71%M, $n = 21,791$ episodes). Aboriginal women are more likely to be referred from criminal justice settings. However, both groups of women complete treatment at the same rate. Treatment providers' perceptions of their inability to successfully intervene with Aboriginal women may be a barrier to treatment. Agency client data should be examined for both race and gender details before treatment providers decide if what they supply is accessible to Aboriginal and Torres Strait Islander populations. This study demonstrates the importance of using evidence rather than assumptions about access to and effectiveness of service provision to Aboriginal women. Analysis of agency, State, and national datasets can inform policy and practice evaluations. Social workers can then support a more hopeful future for Aboriginal women, families, and communities.

Keywords: Aboriginal and Torres Strait Islander Women; Access; Drug and Alcohol Treatment

Effective service provision for Aboriginal and Torres Strait Islanders is a vexed issue for Australia. The nation has poorer Aboriginal and Torres Strait Islander health

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status than other countries with similar Indigenous and non Indigenous populations (Gray, Siggers, Atkinson, & Wilkes, 2007; Ring & Firman, 1998). Racially specific and appropriate health services are considered an important way of improving Aboriginal and Torres Strait Islander health status and there is a widespread perception that most mainstream health and community services are inappropriate and ineffective (Baum, 1998; Hayman, White, & Spurling, 2009; Siggers & Gray, 1991). While health status is not directly related to the provision of care, ensuring access for disadvantaged populations is one course of action available to service providers (Legge, 2001).

Access to health and community care encompasses supply, utilisation, and outcomes (Gulliford et al., 2002). Indigenous populations' experience of racial discrimination is considered a factor in health care outcomes even when services are supplied (Westerman, 2004). Racial inappropriateness is described as a fundamental barrier to the use of available services by many Indigenous populations (Gruen, et al., 2002; Wood, et al., 2007). Moreover, in one of the few studies to investigate racial factors in Australian mainstream drug and alcohol service provision, treatment providers stated that they perceive their knowledge and skills as inadequate to properly address Aboriginal and Torres Strait Islander clients' needs and noted that mainstream services need to be improved (Roche, Pidd, & Duraisingam, 2009). In summary, social, racial, and financial barriers to full participation in society experienced by Indigenous populations are identified as an impediment to effectiveness even when mainstream services are used (Gulliford et al., 2002).

Drug and Alcohol Treatment

Access to drug and alcohol (D&A) treatment services is particularly salient for Australia, as the nation is paying considerable attention to risky drug and alcohol use. For example, bipartisan support by Commonwealth, State, and Territory governments is given to the National Drug Strategy (Ministerial Council on Drugs Strategy, 2004). The strategy incorporates a framework to allocate resources for reducing supply, demand, and harm related to D&A use (Ministerial Council on Drugs Strategy, 2004). Alcohol is of particular concern. The Commonwealth government has identified alcohol as a focus for its Preventative Health Taskforce, noting the significant cost of addressing alcohol-related harm and the damaging effects on the health of Australians (Preventative Health Taskforce Australia, 2008).

Aboriginal and Torres Strait Islander Australians are concerned about drug and alcohol-related harm within their communities. Substance use in combination with poverty, poor housing, and limited educational attainment is identified as a key reason for the 17-year gap in life expectancy between Aboriginal and Torres Strait Islander and non Indigenous Australians (Gray et al., 2007). Aboriginal and Torres Strait Islander drug use, primarily alcohol, is described as the cause of serious health problems, imprisonment for D&A related offences, and endemic family violence (Australian Bureau of Statistics and Australian Institute of Health and Welfare [AIHW], 2008; Brady, 2007; Weatherburn, 2008).

Access to treatment has been identified as the most significant factor in reducing D&A related harm for disadvantaged populations (Swift & Copeland, 1996). Reports about treatment outcomes for Aboriginal and Torres Strait Islander Australians are minimal and generally reflect either limited utilisation or few treatment completions (Gray, Saggars, Sputore, & Bourbon, 2000; Steering Committee for the Review of Government Service Provision Overcoming Indigenous Disadvantage, 2005). For example:

Specific alcohol and drug use services only reach a small proportion of Indigenous people who are affected by alcohol and substance misuse. Specialist treatment services for substance misuse for the general population (to which Indigenous people theoretically, but not practically, have access) are provided by a wide range of mainstream government and nongovernment services (Gray, Saggars, Atkinson, & Strempel, 2004, p. 17).

Gender Differences in Drug and Alcohol Treatment

There are gender disparities in D&A treatment records that suggest further barriers to treatment access for Aboriginal and Torres Strait Islander women in particular. Worldwide, men comprise the greatest proportion of the treatment population, consistently receiving around 70% of all treatment episodes (Acharyya & Zhang, 2003). In Australia, 66% of all closed treatment episodes are provided to men (AIHW, 2007). A study of Aboriginal and Torres Strait Islander specific treatment programs found that they primarily targeted men (Alati, 1996). Prevalence studies have found that in general, women use drugs and alcohol less than men, but that women's use is increasing (Forero, Bauman, Chen, & Flaherty, 1999; Greenfield et al., 2007; Grella & Greenwell, 2007). Women's family and caring responsibilities, limited education, and lack of practical and financial support have been identified as reasons for substantially lower treatment usage rates (Greenfield et al., 2006). Additional reasons given for caution or reluctance in seeking treatment include pregnancy and fear of prosecution or removal of children by child protection authorities if they become aware of drug use, particularly of illicit drugs (Pelissier & Jones, 2005).

Racial Factors in Treatment for Women

Race has been identified as a factor in women's treatment outcomes. Several USA studies have investigated women's ethnicity or race as a factor affecting outcomes of drug treatment. For example, one study compared drug treatment motivation in white and African-American pregnant women. It found that white women were eight times more likely to be motivated for treatment and complete it (Mitchell, Severtson, & Latimer, 2008). Another study reported that African-American and Hispanic women admitted to drug treatment upon parole from prison were found to have a lower likelihood of treatment completion than white women (Grella & Greenwell, 2007).

Some Aboriginal and Torres Strait Islander women are likely to need drug and alcohol treatment programs and to experience racial and gender barriers to accessing mainstream treatment. As a group, they experience low incomes, high rates of unemployment, low educational attainment, and tend to have children at an early age (Briskman, 2007; Forero et al., 1999). There are risks from legal and child protection systems associated with disclosing drug use and seeking treatment (Chikritzhs & Brady, 2006; Pelissier & Jones, 2005). Few treatment episodes are likely to be provided to Aboriginal and Torres Strait Islander women. When treatment is provided to Aboriginal and Torres Strait Islander women in mainstream services, fewer treatment completions could be expected.

Drug and Alcohol Treatment Data Collection

Australian drug and alcohol treatment programs are provided by both government and non government agencies. The Australian Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS–NMDS) measures supply of publicly funded mainstream drug and alcohol treatment. AODTS–NMDS data collection is managed by State and Territory health authorities (AIHW, 2007).

Treatment provided includes one or more types of intervention such as medicated withdrawal, assessment, counselling, rehabilitation, case management, and education or information. Aboriginal and Torres Strait Islander specific treatment agencies do not participate in this data collection reporting their treatment episodes to a different collection (Drug and Alcohol Service Report [DASR], 2006). The AODTS–NMDS identifies 10% of all mainstream treatment episodes as being provided to Aboriginal and Torres Strait Islander people. Of these treatment episodes, 6.4% are to Aboriginal and Torres Strait Islander men and 3.7% to Aboriginal and Torres Strait Islander women (AIHW, 2007).

For the purposes of the present study, the term Aboriginal is used to refer to Australian Indigenous women rather than Aboriginal and Torres Strait Islander women. Aboriginal people were the first inhabitants of the area now known as New South Wales (NSW). Aboriginal is considered the most appropriate term to use for a study based on NSW data (NSW Health, 2004). The study aimed to identify the proportion of Aboriginal women accessing NSW non government D&A treatment compared to non Indigenous women. Similarities and differences in referral source, principal drug of concern, and treatment completion between the two groups of women were investigated. Three datasets were used to investigate these aims

Method

Sample and Background

The study was conducted as part of a multimethod action research project examining drug and alcohol service provision in rural NSW. The research was approved by Charles Sturt University Ethics in Human Research Committee. A three-stage statistical

analysis was conducted of NSW non government organisation AODTS–NMDS records for the years 2005 to 2007. In NSW, approximately one third of service providers are non government organisations (NGOs) providing 43% of all treatment episodes (AIHW, 2007). Significant advantages of using this data base in analysis include a high quality data collection instrument, monitored collection processes encouraging a high response, and large sample sizes (Thomas, 2005).

Data Analysis

The selected data were analysed using a combination of descriptive and inferential statistical techniques (Altman, Gill, & McDonald, 2004). These analyses were generated using the statistical computer program SPSS 16.0 for Windows (SPSS Inc, Chicago, IL, USA). Before analysis, data screening was conducted for all variables to identify any missing values or outliers and to determine the accuracy of data entry. Agencies responsible for individual data variables were contacted if inconsistencies were identified. The data base had four categories related to Australian Indigenous status: Aboriginal and Torres Strait Islander, Aboriginal but not Torres Strait Islander, Torres Strait Islander only, and neither Aboriginal nor Torres Strait Islander. For the analysis, the first three categories were recoded as Aboriginal and the fourth as non Indigenous.

The only variables used from the database in this study were categorical variables. Frequency data were generated and displayed in tabular or graphical form. Global differences between groups of bivariate categorical variables were investigated using the chi-square test of independence. To more objectively make pairwise comparisons, the Marascuilo Procedure was used as a post hoc test (with .05 level of significance) to identify the proportions that are different.

Dataset 1: All Episodes in All NSW NGO

Using the AODTS–NMDS submitted by NSW NGOs, the number of treatment episodes provided to Aboriginal and non Indigenous men and women across the State were identified ($n = 24,871$). Frequency data were generated from these episodes based on the variables: referral sources, principal drug of concern, and reason for treatment cessation. Chi-square tests of independence were applied to identify any statistically significant differences between Aboriginal and non Indigenous women

Dataset 2: All Episodes Single Agency

A single agency was selected on a convenience basis. The selected agency provided 14% of all NGO treatment episodes in NSW—the second highest number of treatment episodes of any agency. It was chosen because (a) it provided treatment to adult men and women including Aboriginal people; (b) it provided a range of treatment types; and (c) when contacted, agency staff agreed to check their records if any data errors or inconsistencies were identified during the analysis. Treatment provided by the agency included assessment, inpatient and outpatient withdrawal, residential rehabilitation, outreach counselling, information and education, and family support to men and women from urban, regional, and remote areas of NSW

and interstate. Treatment episodes measure the amount of service provision and may record the same person attending different agencies, the same agency, or both on multiple occasions. The agency's minimum dataset records for the three year period ($n=3,511$) were analysed to investigate the percentage of treatment episodes provided to Aboriginal and non Indigenous women.

Dataset 3: Unique Individuals—Single Agency

Dataset 2 was then rigorously cleaned and reduced by using unique client codes cross-matched with date of birth and Aboriginal status to identify individual client episodes ($n=1,549$). This was possible because the agency uses the same client code across all its service types. The State-wide sample could not be reduced in this manner, because each agency allocates its own client code resulting in many instances of the same client code being linked to different individuals. The final dataset represented unique individuals, but remained relatively large ensuring that the study had sufficient power to detect statistical differences (Gardner & Altman, 1989).

Results

The results for the examination of gender versus Aboriginal status for each of the three datasets are summarised in Table 1. The percentages in the row column need to be read across the Table and provide the total numbers and percentages of male and females for the Indigenous group and non Indigenous group, respectively. The column percentages need to be read down the Table and provide the total numbers and percentages of females (Indigenous and non Indigenous) and males (Indigenous and non Indigenous), respectively. A highly statistically significant relationship was found between gender and Aboriginal status in Dataset 1 ($\chi^2 = 80.7$, $df = 1$, $p = .001$). Females were a significantly larger proportion of Indigenous service users (37.3% vs 62.7% males) compared to those among non Indigenous service users (29.4% vs 70.6% males). The same significant relationship was found for the "all episodes in single agency" Dataset 2 ($\chi^2 = 21.0$, $df = 1$, $p = .001$), where the relationship between gender and Aboriginal status was weaker, but remained statistically significant in Dataset 3 ($\chi^2 = 4.6$, $df = 1$, $p = .032$).

Dataset 1: All Episodes in All NSW NGOs

The "all episodes in all NSW NGOs" dataset was analysed to determine if there were differences between Aboriginal and non Indigenous women for the variables: referral sources, principal drug of concern, and reason for cessation of treatment. The results are summarised in the Figure bar charts.

Referral Source

There were 21 referral sources identified in the dataset. This item recorded the pathway into drug treatment for each treatment episode. Missing and "not stated" values were omitted from this analysis. More than half the sources had very low

Table 1 Gender and Aboriginal Status for the Datasets

	Female			Male			Total		
	n	%row	%col ^a	n	%row	%col ^a	n	%row	%col ^a
All episodes in all NSW NGOs (n = 24871)									
Aboriginal	1149	37.3		1931	62.7		3080	100	12.4
			15.2			11.1			
Non Indigenous	6397	29.4		15394	70.6		21791	100	87.6
			84.8			88.9			
Total	7546	34.6		17325	65.4		24871	100	100
			100			100			
All episodes single agency (n = 3511)									
Aboriginal	238	30.7		537	69.3		775	100	22.1
			27.7			20.2			
Non Indigenous	621	22.7		2115	77.3		2736	100	77.9
			72.3			79.8			
Total	859	24.5		2652	75.5		3511	100	100
			100			100			
Unique individuals single agency (n = 1549)									
Aboriginal	109	29.5		261	70.5		370	100	23.9
			27.9			22.3			
Non Indigenous	282	23.9		897	76.1		1179	100	76.1
			72.1			77.7			
Total	391	25.1		1169	74.9		1549	100	100
			100			100			

Note. ^aEpisodes with unknown gender or Aboriginal status have been removed (718 from dataset 1, 19 from dataset 2, and 11 from dataset 3).

numbers—less than 3% each, with one source (Medical supervised injecting centre) applying to just two episodes in the whole dataset. The number of categories was reduced by combining smaller categories. This was done for two reasons. The first reason was so the assumptions behind the chi-square test would be satisfied. The second reason was because some sources were very similar and should be considered as one group. For example, the categories “General Practitioner” and “Medical Officer” were combined to make a new category “General Practitioner/Medical Officer”. Other examples include combining general health and mental health services that are otherwise the same.

The chi-square test found that there was a statistically significant difference among some of the referral sources between Aboriginal and non Indigenous women ($\chi^2 = 243.9$, $df = 11$, $p < .001$). The twelve (recoded) referral sources for female treatment episodes are presented in Figure 1. The bar chart reveals several differences in the two groups of women. Post hoc analysis using the Marascuilo Procedure found that referrals from the criminal justice system (“Court Diversion” and “Other Criminal Justice Setting”) have a higher proportion of episodes for Aboriginal women than all the other sources. There were 24% of episodes for Aboriginal women referred from a criminal setting (10.1% from Court Diversion, 13.9% from Other

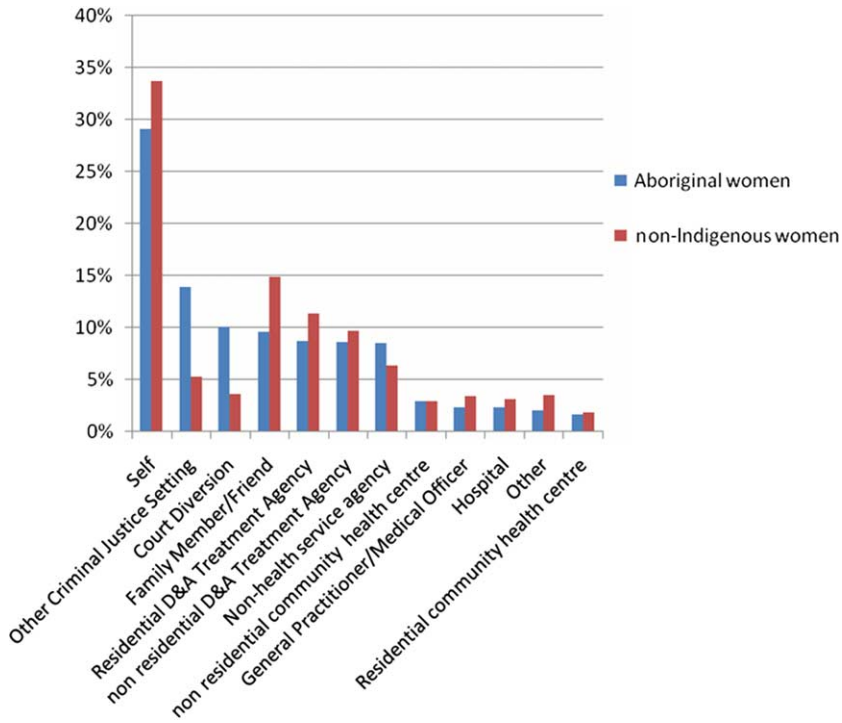


Figure 1 Aboriginal and non Indigenous referral sources—all-treatment episodes. There were 1,141 episodes for Aboriginal women and 6,368 episodes for non Indigenous women.

Criminal Justice Setting), compared with only 9% for non Indigenous women (3.7% from Court Diversion, 5.3% from Other Criminal Justice Setting). The other pattern the Marascuilo Procedure identified was the difference of referrals between “Family Member/Friend” and “Non Health Service Agency”. Less episodes of care were initiated by family or friends for Aboriginal women (9.6% of their episodes) compared to non Indigenous women (14.9% of their episodes). In contrast, more episodes of care were initiated by non health service agencies (e.g., a family and child protection service) for Aboriginal women (8.5% of their episodes) compared to non Indigenous women (6.4% of their episodes).

Principal Drug of Concern

There were 11 categories recording principal drug of concern with no missing values. However, the smallest four categories (ecstasy, caffeine, nicotine, and organic opiate analgaesics) represented in total less than 1% of all episodes and hence were combined into one group (Other). Figure 2 shows the results for Aboriginal and non Indigenous treatment episodes. The majority of treatment episodes were provided for alcohol, heroin, and cannabis use for both groups. However, there were statistically significant differences in the principal drug of concern between Aboriginal and non Indigenous women ($\chi^2 = 38.5, df = 7, p < 0001$). The

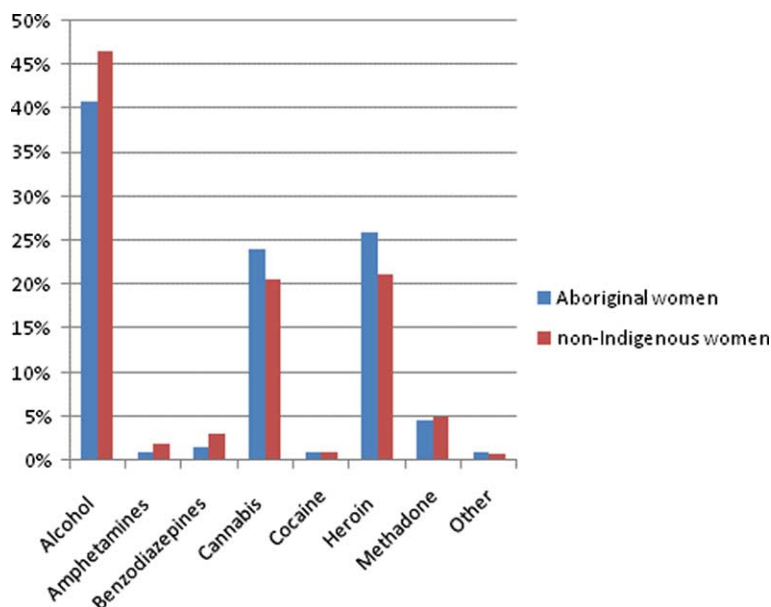


Figure 2 Principal drug of concern recorded in all treatment episodes. There were 1,149 episodes for Aboriginal women and 6,397 episodes for non Indigenous women.

Marascuilo Procedure was used to identify some of these differences. The proportion of episodes for Aboriginal women compared to non Indigenous women was less for the principal treatment of alcohol, amphetamines, or benzodiazepines; but greater for heroin or cannabis.

Reason for Cessation of Treatment

There were 10 categories in the dataset to record reasons for treatment ending. These included completion of treatment, referral to another service, and categories that indicated problems with treatment (e.g., left involuntarily and left against advice). Figure 3 shows the results for this item (categories that correspond to less than 2% of treatment episodes have been combined to give the “Other” category for both clarity and to meet the assumptions of the statistical test). It demonstrates that there are no statistically significant differences in the rate of female treatment completions for Aboriginal and non Indigenous treatment episodes in this Dataset 1 ($\chi^2 = 2.9$, $df = 5$, $p = .72$). In particular, 37.9% of treatment episodes for Aboriginal women and 38.9% of treatment episodes for non Indigenous women were completed (a nonsignificant difference). For the purposes of the statistical test, the “Not stated/inadequately described” category was omitted since it corresponds to missing data. This category represented 10% of all treatments, which was considered to be high. However, even when including this category, the differences remained nonsignificant.

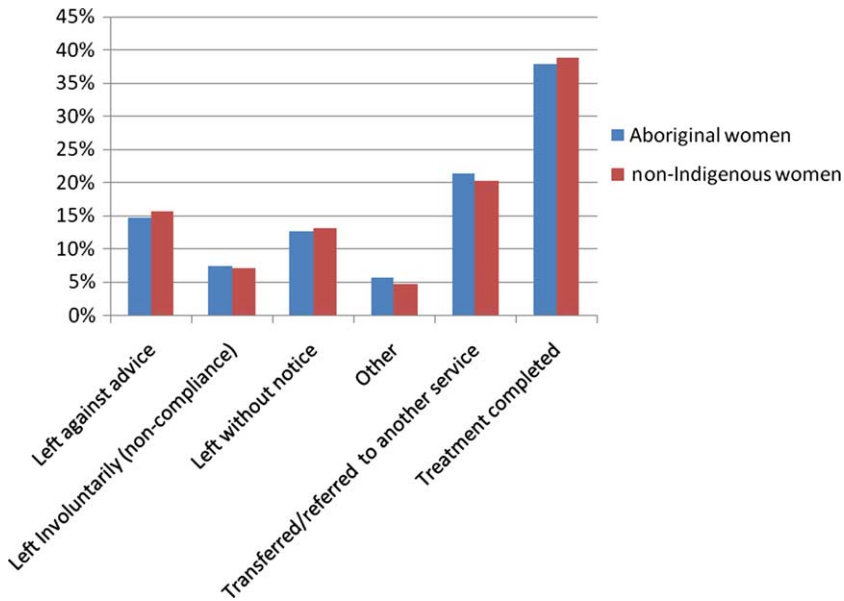


Figure 3 Reason for cessation of agency treatment episodes. There were 1,015 episodes for Aboriginal women and 5,775 episodes for non Indigenous women.

Dataset 3: Unique Individuals—Single Agency

The second stage of analysis identified unique individuals from multiple treatment episodes, by removing multiple treatment episodes for individuals from Dataset 2. The number of individuals was 45.5% the size of the number of episodes; therefore, some individuals received multiple treatment episodes. This analysis of client codes identified that: 23% of individuals receiving treatment were Aboriginal; Aboriginal women were 27.9% of the female treatment population; and Aboriginal men were 22.5% of the male treatment population. The demographics of unique individuals from the single agency are reported in the third part of Table 1.

A chi-square test showed that Aboriginal status and gender proportions were not significantly different for the two single agency datasets (all episodes and unique individuals). The chance a patient received multiple treatment episodes was not biased (for this agency) by Aboriginal status or gender.

In Dataset 3, there were 109 Aboriginal women represented out of a total sample size of 1,549. Aboriginal women thus comprised 7% of the treatment population. The agency, from which these data were collected, was situated in a region where Aboriginal women made up between 1.5% and 2.5% of the population (Australian Bureau of Statistics, 2006). There was not a precise drawing area for this agency (some clients travelled a great distance; from urban, rural, and remote areas), thus a lack of precision in the estimate. Regardless, Aboriginal women were well over represented in this agency’s treatment population.

Discussion

Females comprised a larger proportion of all Aboriginal service users who accessed NSW non government drug treatment agencies, compared to females among all non Indigenous service users. This is contrary to the expected finding. The results do not support the common view that mainstream services are not utilised by Aboriginal women. Equally, or even more surprising, was the finding that Aboriginal women complete treatment at the same rate as non Indigenous women. Treatment completion in this sample seems unrelated to race. This is a significant finding for the non government treatment sector that perceives all of their services as inaccessible and ineffective for Aboriginal and Torres Strait Islander Australians (Roche et al., 2009).

It is a critical point that Aboriginal women in this study are less likely to have a *choice* about entering drug treatment: one in four treatment episodes were from criminal justice referrals (compared to just one in 10 treatment episodes for non Indigenous women). Those with disadvantaged social circumstances are over-represented in criminal justice settings and are most likely to come to treatment from this arena (Rooney & Chovanec, 2004). A great deal of debate occurs in the drug and alcohol field about motivation for, and coercion into, treatment.

Self-referral into drug treatment suggests a degree of choice and control over healthcare access and is usually linked to motivation and associated positive treatment outcomes (Grella & Greenwell, 2007; Mitchell et al., 2008). However, coercion into treatment does not only refer to legal mandates. Klag, Creed, and O'Callaghan (2006) suggested that all individuals seeking rehabilitation are coerced because of pressure exerted on them by family, friends, employers, or financial problems. Several studies (e.g., Marlowe et al., 1996; Wild, Cunningham, & Ryan, 2006) have found that personal coercion from these sources may have a greater effect on a decision to enter treatment than legal measures. Since Aboriginal women in this study are less likely than non Indigenous women to self-refer or be referred by family and friends, the criminal justice system could enable necessary access to treatment. This is a challenging perspective when involvement with criminal justice agencies is more commonly perceived as negative.

The role of the criminal justice system in enabling access to treatment cannot be ascertained from the results of this study. While it is estimated that 90% of women in NSW correctional centres have a significant history of illicit drug use, we know little about their circumstances outside those centres (Australian National Council on Drugs, 2004). This study does not identify the reasons women are in the criminal justice system, why or how they are referred for treatment, nor if there is any degree of choice or preference involved. Rather than enabling access, it is more likely that the high number of referrals from the criminal justice system portrays a high degree of control and surveillance over Aboriginal women's lives. Pathways into treatment and Aboriginal women's perceptions of choice and coercion require investigation. Greater knowledge and understanding about the events and processes that occur prior to

treatment could minimise criminal justice involvement for Aboriginal women if treatment was what was required.

The literature suggests that the few Aboriginal women in mainstream treatment are unlikely to complete it because of access barriers and because of the apparent lack of choice and related motivation to remain in treatment (e.g., Brady, Nicholls, Henderson, & Byrne, 2006; Pelissier & Jones, 2005). The results of this study indicate that this is not always the case. There may be more factors in common between the two groups of women than differences. If treatment providers focus only on Indigenous status, perceiving that they cannot provide effective treatment for Aboriginal women, they are likely to be missing other reasons as to why women do not complete treatment. It is important to note that the frequency data revealed that around one-third of all women leave treatment before completion. The circumstances of these treatment episodes are unexplained. Women may find the treatment program or the environment unacceptable; or their personal or family circumstances prevent them remaining in treatment. Incomplete treatment episodes require further investigation.

Limitations of the Study

This study uses an observational dataset from NSW NGO drug and alcohol treatment services only. While the NGO sector provides nearly half of the State's treatment episodes, there may be significant differences in client demographics and referral sources across the other treatment agencies. Government treatment agencies are more likely to provide opiate replacement programs and one-to-one counselling than NGO agencies. The single agency dataset is a convenience sample and not representative of all NSW NGO agencies and treatment episodes. Given these limitations, care should be taken in generalising the findings to other settings.

There is an assumption in this paper that treatment completion is a positive outcome associated with some improvement in substance misuse, health and wellbeing, or both. There may be serious penalties for people leaving treatment who are referred from criminal justice settings that could affect completion rates. Investigation of D&A treatment outcomes for Aboriginal and non Indigenous people is an important area for future study.

Implications for Social Work Practice

As substance misuse is identified as an important problem facing Aboriginal and Torres Strait Islander communities, it is an area where social workers need to develop skills and experience. Opportunities are more likely in the NGO sector. This sector provides just less than half of all drug and alcohol treatment in the State and employs few social workers (Roche, 2002). The government treatment sector may provide different types of treatment and these may be less accessible to Aboriginal women. However, social workers are more likely to be employed in the government health sector (AASW, 2008), where they may be less likely to come into contact with Aboriginal women. Social workers need to gain experience with the concerns and strengths of Aboriginal women.

It is important to use evidence, rather than assumptions, to evaluate existing policy and practice in all social work arenas. Epidemiological data can provide evidence to reflect on, and evaluate, social work practice. There is a perception of unmet demand for drug and alcohol services that is supported by treatment providers' reports of their inability to provide acceptable and effective services to Aboriginal and Torres Strait Islander clients. Combined with media depictions of uncontrollable drug and alcohol use in remote Aboriginal communities and its related impacts (e.g., Callinan, 2006), ineffectiveness of treatment services seems inevitable. A history of damaging and traumatic interventions with Aboriginal communities, families, and individuals, combined with appropriate caution and concern about racial competence in helping activities, has resulted in many workers fearing they will contribute to further damage (Briskman, 2007; Gilbert, 2005). The large scale Northern Territory Intervention and problems implementing any positive aspects of that action only substantiate concerns. Literature designed to assist in developing racially appropriate approaches (e.g., ADF, 2004) may inadvertently support assertions of mainstream unacceptability by presuming Aboriginal preferences for and outcomes of interventions or treatments.

There are many examples of poor health outcomes for Aboriginal and Torres Strait Islander populations (e.g., Gray et al., 2004; Gruen et al., 2002; Westerman, 2004). It is likely these poor outcomes are more closely related to the social determinants of health and related racial discrimination than treatment for specific disease or disorder (Gulliford et al., 2002; Ring & Firman, 1998). Social work has an important role to play in ensuring services are available, acceptable, and appropriate for Aboriginal and Torres Strait Islander people.

The present study demonstrates that social workers need to be critical of, and informed about, what services are accessible and what they provide rather than assuming all mainstream interventions intrinsically lack racial sensitivity and are doomed to failure where Aboriginal clients are concerned. The similarities between disadvantaged groups require investigation as well as the differences. Reconciliation with Australian Aboriginal people needs to move forward from saying sorry about the past to informed action to address current and ongoing injustice. Social workers and other health and human service professionals can then support a more hopeful future for Aboriginal women, families, and communities.

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