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The role of an Indigenous Health Worker in contributing to equity of access to a mental health and substance abuse service for Indigenous young people in a youth detention centre

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Abstract

Indigenous youth in detention have been identified as a priority category in national and state policies in relation to their mental health and drug and alcohol service needs. This article describes the development of the role of Indigenous Health Worker in the Mental Health Alcohol Tobacco and Other Drugs Service (MHATODS) at a youth detention centre. It provides an account of the process as well the outcomes achieved to date. A retrospective and descriptive account is given of the development of the role, and of strategies aimed at improving access to MHATODS for Indigenous young people. Over a one-year period, data were compiled on all young people admitted to a Queensland youth detention centre, which was then cross referenced with MHATODS' own service records to determine the proportion of Indigenous young people who had been referred and subsequently received a service. The Indigenous Health Worker has decreased barriers to access for Indigenous young people who require treatment for mental health or substance abuse problems while in detention. There was no significant difference in referral or service provision rates for Indigenous compared to non-Indigenous youth. Indigenous young people were statistically more likely to refuse an assessment by MHATODS, though given the low rates of refusal the clinical significance was small. MHATODS' use of an Indigenous Health Worker significantly contributes to the needs of Indigenous young people in youth detention by reducing barriers to access for the assessment of mental health problems and substance misuse. MHATODS has achieved equity in referral and service provision between Indigenous and non-Indigenous youth admitted into detention. Clinical and cultural supervision play an important part in the development and maintenance of the Indigenous Health Worker role.

Keywords

Indigenous mental health, substance misuse, youth detention, youth, Indigenous, equity

Introduction

The need for equity in accessing mental health and substance abuse services

In 1992, the *National Mental Health Policy* identified young people, and Aboriginal and Torres Strait Islanders as being at particular risk for mental health problems (Australian Health Ministers, 1992b). In the following year, the Human Rights and Equal Opportunities Commission (1993) addressed the serious issue of poor delivery of mental health services to the most socially and economically disadvantaged sections of the community, including those in

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youth detention. National and State policies have also recognised that mental health service delivery to socially marginalised children and young people was an important area of unmet need. Collaborative ventures between the Commonwealth, State and Territory governments have since been developed, committing them to a process of major reform of mental health services (Australian Health Ministers 1992a, 1992b, 1998). These key strategies in mental health provision were paralleled in the *National Drug Strategic Framework* and the *National Alcohol Strategy* (Ministerial Council on Drug Strategy 1998, 2001), both of which noted the high incidence of dual diagnoses among Indigenous young people, and recommended that steps be taken to strengthen the links between mental health services and drug treatment services in order to provide better and timelier access to therapeutic interventions.

Youth in detention rank among the most socially disadvantaged in the community, and are at an increased risk of a broad range of mental health and substance misuse problems (Abram, Teplin, McClelland & Dulcan, 2003; Abrantes, Hoffman & Anton, 2005; Bickel & Campbell, 2002; Wasserman, 2002). In Queensland, a high proportion of these young people identify themselves as being of Aboriginal or Torres Straight Islander descent (Department of Communities, 2004). Longstanding deficiencies in the provision of health services to young people in detention in Queensland were highlighted in 1999 by the *Queensland Commission of Inquiry into Abuse of Children in Queensland Institutions*, which noted the need for a mental health service to youth in detention centres that would more adequately address their needs (Forde, 1999). The development of the Mental Health Alcohol Tobacco and Other Drugs Service (MHATODS) was part of a wider response to recommendations of the Inquiry and has been detailed elsewhere (Forde Inquiry Implementation Monitoring Committee, 2001).

The development of the role of an Indigenous Health Worker

Creating a service that is equally accessible to all young people in detention has been a core objective in the development of MHATODS. During MHATODS' initial planning phase, it was anticipated that engagement of Indigenous young people in the assessment of mental health problems and substance misuse would be a considerable challenge. In line with the Queensland Health Indigenous workforce strategy (Queensland Health, 1999) advertising was aimed to target Indigenous communities through the Indigenous press, local Indigenous agencies and community leaders in order to encourage Indigenous people to apply. Involvement of Indigenous psychiatrists and allied health professionals was considered the ideal option, though the dearth of such qualified professionals made this impractical.

It was difficult to find consistent descriptions of Indigenous Health Worker positions within child and youth mental health or drug and alcohol services. This issue has been noted by Parker (2003) who observed that the descriptive term 'Aboriginal mental health worker' is used in a broad range of people with a wide range of qualifications and experience, working under markedly different circumstances for services who have poorly defined expectations. MHATODS was fortunate in having the support and advice of a Senior Indigenous Project Officer in developing the role, recruiting for the position, and subsequently providing cultural supervision. Following consultation with Indigenous stakeholders, it was recommended that MHATODS establish guidelines for the development of the non-clinical role of an Indigenous Health Worker in order to facilitate engagement with Indigenous youth.

It was determined that the primary task of the Indigenous Health Worker would be to promote referrals of Indigenous youth to MHATODS, engage and maintain young people in treatment and provide cultural insight into appropriate mental health assessments and interventions. Secondly, the Indigenous Health Worker would not act as the sole case manager of any patient but would be involved in formal clinical interventions jointly with a MHATODS clinician. Thirdly, the Indigenous Health Worker would receive clinical supervision from a senior allied health professional and regular cultural supervision from a senior Indigenous officer. Fourthly, as no specific training program existed

in MHATODS prior to recruitment of the Indigenous Health Worker, it was recommended that the worker receive standard orientation and participate in a number of core clinical training programs. It was recommended that a specific program that aimed not to provide training in therapy, but to assist in complementing the clinical work of other MHATODS clinicians, be developed over time as the tasks of the Indigenous Health Worker became clearer. Finally, an advanced diploma in Primary Health Studies or equivalent was set as the minimum selection criterion.

Unique characteristics of the Indigenous Health Worker role

From its commencement, MHATODS recognised that a different style of intervention would be required when working with Indigenous young people. A growing body of literature (Bennett & Zubrzycki, 2003; Folds, 1985) has noted that the practice of Indigenous staff members frequently requires a different approach from their non-Indigenous colleagues. These include working in non-formal settings at irregular hours, or becoming involved in social activities as part of the process of engaging and working with Indigenous people (Bennet & Zubrzycki, 2003). However, without a conceptual framework, it was initially unclear just what the worker's daily role would entail. Indeed, the Indigenous Health Workers' position description developed conceptually over time. Engaging Indigenous patients in therapy, especially those who had previously refused treatment, gradually became recognised as the central focus of work.

The delivery of appropriate psychological support is a core task of MHATODS. It is recognised that trust in the treating professional and a belief in their genuineness and personal authenticity are key factors for favourable therapeutic outcomes (Pervin, 2003). The majority of Indigenous young people in youth detention suffer from a prejudicial upbringing, frequently characterised by poverty, abuse and neglect, itinerancy and family disruption. These disadvantages are compounded by what many would view as ubiquitous discrimination towards Indigenous people in Australian society, particularly within this social cohort (Swan & Raphael, 1995). It was the team's perception that these factors contributed to Indigenous youth in detention lacking trust in non-Indigenous people generally and in non-Indigenous therapists in particular. The link between communication and trust forms a critical component in the well being of Indigenous mental health patients (Hunter, 2004). Given that culturally appropriate engagement is recognised as a barrier to effective mental health services (Vicary, 2002; Westerman, 2004), building rapport with Indigenous young people was viewed as a primary task for the Indigenous Health Worker. It was therefore planned that the Indigenous Health Worker would spend time engaging with youth in their living quarters and social or sporting activities, thus developing a mutual sense of trust and encouraging them to attend MHATODS appointments following a referral. This generated a positive view of the Service, created a belief for the young person in a non-judgemental reception by MHATODS staff, and contributed to realistic expectations of therapy. Furthermore, it became evident that having a general presence with young people has turned out to be more than a means of directing individuals towards therapy. It has also contributed to a culture of acceptance of MHATODS within the centre. Third person referral is frequently seen as culturally appropriate (Vicary, 2002); it is not uncommon for young people to 'vouch' for MHATODS and informally refer friends and relatives to the Service for an assessment.

With increased experience of forensic mental health issues, the Indigenous Health Worker became clinically adroit in assessing behaviours that were culturally bound or appropriate, compared to those issues that were considered to be more manipulative or oppositional in nature. The worker was also able to engage young people in the concept of emotional and spiritual wellbeing, and form an opinion as to what symptoms were more culturally bound, as opposed to those symptoms that were more characteristic of a distinct mental illness. This has made an important contribution to the team's overall assessments. Although the ultimate decision on clinical intervention lies with the clinician, the Indigenous Health Worker's

assessment frequently added either a level of confidence in formulating a treatment plan, or a note of caution that resulted in an increased level of monitoring and review.

Young people in detention suffer from high rates of serious mental health problems and substance misuse (Abram et al., 2003; Abrantes et al., 2005; Bickel & Campbell, 2002; Wasserman, 2002) complicated by significant psychosocial stresses such as poverty, unemployment, abuse and neglect (Chitsabesen & Bailey, 2006). These issues frequently challenge the most experienced clinician. However, given the assumption that the Indigenous worker would not be a qualified mental health therapist, the role's focus emphasised cultural brokerage rather than direct clinical intervention. It was soon evident that such boundaries can easily blur. As planned, the Indigenous Health Workers spent significant amounts of time with the young people, who responded to their care, warmth and interest and did not immediately see the distinction between what the Worker had to offer, and what was available from the primary therapists. Operating at that boundary between culture and therapy therefore raised a range of issues for the Indigenous Health Worker. For instance, a clinician's training demands an understanding of the complex dynamic relationship which exists between therapist and patient. The Indigenous Health Worker would establish close links with vulnerable young people without the training to meet the emotional demands of such a relationship. As a consequence, there were times when Indigenous Health Workers were emotionally burdened by these relationships. It is an area that MHATODS had identified as being important to monitor, and therefore provided support to the non-therapeutically trained worker.

The Indigenous Health Worker is employed in a role where their own aboriginality is central to the work task, and not just a personal characteristic. They often work with young people with whom they shared much common ground and experience, which brings its own emotional, philosophical, political and cultural challenges. Additionally, not all young people with whom the Indigenous Health Worker was involved perceived their situation from a traditional or Indigenous perspective Involvement with emotionally disturbed young people therefore highlighted the need for the Indigenous Health Worker not only to be in touch with cultural dimensions of young people's lives, but also the importance of maintaining appropriate boundaries within clinical interactions. Again, these issues were clarified in supervision, which emphasised the need of support for non-therapeutically trained staff in what is an emotionally demanding area.

It is difficult for concerned workers within the field of adolescent forensic mental health to maintain a balanced perception of a young person's character while attempting to build rapport. For the sake of the therapeutic relationship, there may be a tendency to minimise a young person's history of conduct disorder or the seriousness of their criminal behaviour. However, there is an additional cultural dimension for the Indigenous Health Worker. Bennett & Zubrzycki (2003) noted that the dominant professional discourse acts to maintain separateness between the personal and the professional self such as not developing friendships with clients or adopting a professional role with family members. For Indigenous workers these identities coexist and converge as a result of kinship ties, obligations and the realities of living and working in the community. This is an issue into which Indigenous supervisors may have direct insight and of which non-Indigenous clinical supervisors need an understanding in order to appreciate the difficulties Indigenous Health Workers face in working in this role.

The Indigenous Health Worker frequently works outside regular clinic periods and spends much time with detention centre staff. This has brought considerable advantages to MHATODS, such as creating a positive expectation from detention centre staff regarding the services MHATODS provides, and improving lines of communication between MHATODS and centre management. However, working at the interface of two different agencies is challenging. For the Indigenous Health Worker, this paradigm has at times contributed to a sense of discontinuity in effectively being part of two organisations that sometimes have different outlooks, expectations

of service provision, and understandings of young people (Casey, 2000). Presenting MHATODS in an appropriate and culturally acceptable manner has developed as a key aspect of the Indigenous Health Worker's role not only with young people in detention but also with Indigenous staff within the detention centre and external Indigenous service providers. The Indigenous Health Worker became a member of the centre's Indigenous Reference Group. The current worker has participated in cultural celebrations, formed linkages with a range of non-government organisations, and has represented MHATODS at a number of national forums and conferences.

Assessing outcomes

While MHATODS has spent much time in developing the Indigenous Health Worker role, the Service has also employed other initiatives to increase referral rates for Indigenous young people in detention with mental health and substance misuse problems. These have included:

- automatic referral for young people who acknowledge substance use difficulties on admission into detention;
- detention centre staff workshops aimed at helping detention staff identify mental health and substance use issues in young people; and
- Indigenous specific substance use pamphlets available to all young people.

These initiatives have been reflected in increased referral rates for both Indigenous and non-Indigenous young people. The percentage of Indigenous young people referred to MHATODS has increased on an incremental basis, accounting for 41% of total episodes of service in 2003/4 (MHATODS, 2004). Rates have since continued to rise, with Indigenous young people now accounting for 50% of all referrals (Figure 1), with the implication that Indigenous young people were increasingly willing to accept a referral for an assessment by the Service.

Despite these promising developments, little had been formally done to evaluate if Indigenous young people were statistically equally represented in referrals to MHATODS. The aim of this study was therefore to determine how well Indigenous youth were accessing the Service. Referral rates and service utilisation rates were used as indicators of access. The findings of this study utilised the horizontal equity model. As such, we assumed that an underlying equality of need existed for both Indigenous and non-Indigenous young people within the centre. Consequently, young people were assumed to suffer from equal rates of mental health and substance use problems.

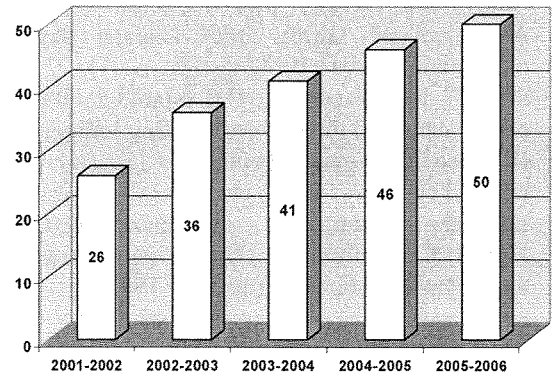

Figure 1. Percentage of episodes of service: Indigenous young people

Method

Prior to July 2003, MHATODS collected information regarding standard demographic characteristics of all referred patients, though was unable to identify the proportion of Indigenous young people admitted to detention that had both been referred to and had consented to an assessment by the Service. With the co-operation of the detention centre, information in relation to the total number of Indigenous and non-Indigenous young people admitted into detention was compiled over a one-year period between 1 August 2003 and 31 July 2004. In order to assess access to the Service, this list was then cross referenced with MHATODS' own records over this period to determine the proportion of Indigenous young people who had been referred and subsequently received a service. Young people are frequency admitted multiple times into detention. Recidivist juveniles were defined as those admitted into detention more than once over the 12 months covered by this study.

Results

During the year, there were 840 admissions into the centre. Of these, 61 (7.3%) were held briefly overnight pending a court appearance the next day, subsequently released from detention, and have not been included in the study. The remaining 779 admissions consisted of 527 individuals. Indigenous young people were over-represented within the detention centre. Although 4.6% of young people aged 10-18 in Queensland identify themselves as being of Aboriginal or Torres Strait Islander descent (Australian Bureau of Statistics, 2001), 225 of the 527 individuals (42.7%) admitted into the centre identified themselves as being Indigenous. Of these 225 young people, 128 (56.9%) were referred to MHATODS. However, there was no significant statistical difference between MHATODS referrals for Indigenous compared to non-Indigenous young people (Table 1).

Of the 527 young people, 357 (155 Indigenous; 202 non-Indigenous) were admitted once over the year, 93 (40 Indigenous; 53 non-Indigenous) were admitted twice, and 77 (38 Indigenous; 39 non-Indigenous) were admitted three or more times. Recidivists were significantly more likely to be referred to MHATODS than their non-recidivist peers ($p<0.001$). However, there was no statistical difference in referrals between Indigenous and Non-Indigenous non-recidivist young people. The same was true for recidivists (see Table 2).

Over the same year, MHATODS received a total of 428 referrals for 280 young people. Of these 428 referrals, 125 (57 individuals) were released from detention prior to being assessed. There was no significant difference in the number of Indigenous compared to non-Indigenous young people who were referred to MHATODS, but released from detention prior to an assessment being made (Table 3).

Table 1. Referrals to MHATODS of young people admitted into detention

	Indigenous	Non-Indigenous	Total
Referred to MHATODS	128	143	280
Not referred to MHATODS	97	145	247
Total	**225**	**302**	**527**

$\chi^2(1) = 2.56$, n.s.

Table 3. Young people referred to MHATODS who were released prior to being seen

	Indigenous	Non-Indigenous	Total
Referred	139	162	303
Referred but *released prior to* being seen	47	78	125
Total	**186**	**242**	**428**

$\chi^2(1) = 2.64$, n.s.

Table 2. Referrals to MHATODS by number of admissions into detention

	1 admission		2 admissions		3+ admissions #		Total
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	
Referred to MHATODS	68	84	29	35	32	32	
Subtotal	*152*		*128*				*280*
Not referred to MHATODS	87	118	11	18	6	7	
Subtotal	*205*		*42*				*247*
Total	**357**		**170**				**527**

Recidivists defined as 2 or more admissions over the year

Non-Recidivist vs Recidivist: $\chi^2(1) = 49.5$, $p < 0.001$
Non-Recidivists (1 admission): Indigenous versus non-Indigenous: $\chi^2(1) = 0.19$, $p > 0.05$
Recidivists (2+ admissions): Indigenous versus non-Indigenous: $\chi^2(1) = 0.66$, $p > 0.05$

Table 4. Referrals of young people to MHATODS who refused to be seen

	Indigenous	Non-Indigenous	Total
Consented to assessment	106	147	253
Refused an assessment	33	17	50
Total	**139**	**164**	**303**

$\chi^2(1) = 9.77, p < 0.01$

Of the remaining 303 referrals, 50 (33 Indigenous; 17 non-Indigenous) were initially willing to be seen but later refused an assessment. These 50 referrals represented 38 individuals (27 Indigenous; 11 non-Indigenous). Indigenous young people were statistically more likely to refuse an assessment following a referral than their non-Indigenous peers ($p < 0.01$) (Table 4). Of those young people assessed by MHATODS, Indigenous young people were seen by the Service on an average of 4.4 times per referral. Non-Indigenous young people were reviewed an average of 5.3 times, though this difference was not statistically significant.

Discussion

These results indicate that MHATODS has established equity of access in terms of referral rates for Indigenous and non-Indigenous young people in detention. Compared to their non-Indigenous peers, there was no statistical difference in the numbers of Indigenous young people admitted to detention and referred to MHATODS. While it is difficult to attribute this equity to any one intervention, it may be accounted for by a combination of factors including the development of effective links within the centre in relation to the types of services MHATODS provides, word of mouth reputation built up over three years of service provision and the promotion of MHATODS by the Indigenous Health Workers within the Service. The focus of this article was not on the success or otherwise of the clinicians, but the effectiveness of the Indigenous Health Worker in meeting the stated aims of that role. Those aims were not only to increase Indigenous young people's access to the service, but also to assist in maintaining these young people in therapy. Data indicated that these goals were achieved, as the differences in total number of clinical sessions per referral for Indigenous and non-Indigenous patients was not clinically significant. MHATODS therefore achieved equity in service provision for these two groups as well as equity of access.

Indigenous young people are statistically more likely to refuse an assessment by MHATODS than are their non-Indigenous peers. Therefore, unlike referral rates, service utilisation rates have yet to achieve equity. This is despite consistent incremental increases in referral rates of Indigenous youth since MHATODS commenced in 2001. Reasons for this are unknown. It is to be expected that a proportion of Indigenous young people in detention come from extremely socially deprived backgrounds, which has lead to a distrust of formal organisations and non-Indigenous services. There is much historic and current evidence that Indigenous people feel stigmatised within the mental health system (Brown, 2001; Colborne & MacKinnon, 2006; Westerman, 2004). Our current assessment and management strategies may therefore still fail to reflect culturally appropriate ways to solve mental health and substance use problems in a proportion of Indigenous youth; perhaps there remains a core group of Indigenous young people who remain resistant to mental health or drug and alcohol interventions. Finally, although Indigenous youth were statistically less likely to accept an assessment to MHATODS, the clinical significance of this disparity is small. Over the year, only 3 of 27 Indigenous young people who refused an assessment would have needed to consent to an assessment in order for the difference to become statistically not significant.

Recidivistic juveniles were significantly more likely to be referred to MHATODS than their peers, though there was no statistical difference in referral rates between Indigenous and non-Indigenous young people. Although young people within the juvenile justice system have high levels of mental illness and substance use problems, there is some evidence that those who are recidivistic have even higher rates than their peers (Kataoka, Zima, Dupre et al., 2001; Quist & Matshazi, 2000). Our findings may simply

reflect this. Other reasons would include that recidivistic young people have a greater opportunity to be referred, given they have been admitted multiple times into detention and are better known by centre staff, have previously engaged with MHATODS on an informal basis and may therefore be motivated to address their mental health or substance use problems.

Not all juveniles referred to MHATODS had the opportunity for an assessment, with 20.4% of young people referred to the Service being discharged from detention prior to review. Young people on remand were frequently referred on admission and discharged from custody by the courts very shortly afterwards. The mental health status of these young people is unclear. A number of juveniles entering the detention centre would have no mental health or substance abuse problems, and hence would not require a service. Other young people who would have benefited from a mental health or drug and alcohol assessment may have refused any referral to the Service. Allied health staff working for MHATODS have a daily presence in the centre, and a consultant child and adolescent psychiatrist visits twice weekly. Nevertheless, a number of young people were unable to be seen due to the rapid turnover of juveniles through the centre. It is unlikely that this is due to any unreasonable delay occurring between a referral and an offered appointment. MHATODS attempts to assess all non-urgent referrals within two working days, a response level which exceeds the minimum standards required of its district community child and youth mental health services. Given the high turnover of young people within the detention centre, and as many may be in detention for a brief period of time, MHATODS reviews existing clients frequently, often once or twice weekly. Where a referred young person has been released from detention prior to being seen, MHATODS contacts the young person's youth justice officer to ensure that they are aware of the referral and the potential need for community follow up.

Published results in the Australian Bureau of Statistics' *National Health Survey* (ABS, 2001) do not give details of the mental health of Indigenous Australians and there is currently no national database of the prevalence of mental disorders in Indigenous youth. This was due in part to concerns that the survey questions in this area may not have been culturally appropriate (ABS, 2001). A subsequent ABS publication (ABS, 2002) suggested that an indication of the high levels of mental health problems in Indigenous Australians may be extrapolated from other health-related data in which Indigenous Australians are reportedly diagnosed with increased rates of mental disorders due to psychoactive substances, have higher hospital admissions for conditions classified as 'mental and behaviours disorders' than the general population, and have higher suicide rates and mortality rates for intentional self injury than non-Indigenous Australians. While the above data is far from comprehensive, it does suggest that Indigenous young people in detention are likely to suffer from higher rates of mental health and substance use disorders than their non-Indigenous peers and as a consequence require a greater level of service.

There is a growing body of theoretical work on the various types of equity relating to health and health care (Wagstaff & van Doorslayer, 2000). Almond (2002) noted, amongst other models, the distinction between the concepts of vertical equity and horizontal equity. Horizontal equity is achieved when all patients or defined groups of patients with equal needs are treated similarly. By implication, it therefore assumes that each patient requires the same type of service. Unlike horizontal equity, vertical equity acknowledges that different groups of people may have different or unequal needs that ought to be addressed in an appropriate manner.

We chose to define 'access' in terms of the availability and utilisation of services, and used a horizontal model to assess equity of service provision. Equity of access may imply more than similar proportions of differing cohorts of young people accessing the service. Young people should expect to receive a service in proportion to their needs. To achieve true vertical equity, the group with the greater burden of mental health and/or drug and alcohol difficulties would have a proportionally greater referral rate than a

group with a lesser burden. MHATODS' use of an Indigenous Health Worker has contributed towards addressing the needs of Indigenous youth within juvenile detention by reducing barriers in the referral and assessment to the Service. While MHATODS has demonstrated equity of access and service provision for Indigenous and non-Indigenous young people in detention (horizontal equity), it is uncertain if vertical equity has been established and further research is required.

Finally, on reflection, MHATODS underestimated the difficulty of the task of the Indigenous Health Worker and the high level of skills required for the role. Engaging Indigenous youth in the context of a seemingly unstructured environment is demanding work. We would recommend the following to other services that are considering the development of a similar role:

- Be flexible in defining the role of the Indigenous Health Worker.
- Although the role may be deemed as non-clinical in nature, quality clinical *and* cultural supervision is necessary and plays an important part in the development and maintenance of the role.
- Our experience has been that staff in other agencies are appreciative of the involvement of the Indigenous Health Worker and have a tendency for unrealistically high expectations in terms of their clinical involvement. Addressing those issues is easier when the limitations of role are clearly identified, as has been discussed elsewhere (Casey, 2000).
- The role is challenging. Consider hiring people at the highest pay level in order to attract and retain suitable applicants. The employment of Indigenous Health Workers at higher grades opens up the possibilities of some degree of clinical intervention, for example running manualised substance use programs. Finally, it is also important to consider that Indigenous professionals are increasing in number, albeit slowly, and it is wise to look to them for clinical expertise in the first instance.

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ORIGINAL ARTICLE

Use of the Massachusetts Youth Screening Instrument to assess mental health problems in young people within an Australian youth detention centre

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Aim: To screen for mental health problems in an Australian adolescent forensic population, evaluate the Massachusetts Youth Screening Instrument Version 2 (MAYSI-2) in providing a preliminary assessment of those needs, and to explore the level of mental health problems in vulnerable populations within detention.

Methods: Over a 6-month period, all young people admitted into detention were referred for screening by the MAYSI-2, a 7-scaled instrument developed to identify young people within the youth justice system at greatest risk for serious mental, emotional or behavioural disorders.

Results: High levels of mental health problems and trauma were reported, with 75.0% of males and 90.0% of females, and 81.2% of Indigenous and 75.0% of non-Indigenous youth screening above the clinical cut-off for at least one scale. Males screened highest on the Alcohol and Drug Use (58.9%), Angry–Irritable (28.2%) and Somatic Complaints (28.2%). Females screened highest on the Alcohol and Drug Use (67.5%), Somatic Complaints (45.0%), Depressed–Anxious (42.5%) and Suicide Ideation (30.0%) scales, with significantly higher rates than males on the Depressed–Anxious, Somatic Complaints and Suicide Ideation scales. No significant differences in screening rates were reported between Indigenous and non-Indigenous youth.

Conclusions: This study confirmed the high rates of mental health problems in adolescents within youth detention. Appropriate use of screening tools improves our understanding and targets treatment of mental health problems in this cohort. We have reservations in recommending the MAYSI-2 as a valid screening tool for Indigenous young people in youth detention and recommend the development of a more appropriate screening tool.

Key words: adolescent; MAYSI-2; mental health; youth detention.

Adolescents held in youth detention rank among the most disadvantaged in the community[1] and share a number of vulnerabilities including chronic social, family or educational adversity, and a history of traumatic life events.[2–5] It should come as no surprise that a growing body of literature has demonstrated that these young people also suffer from high rates of mental health problems. Compared to Australian community samples, where 19% of adolescents reported mental health problems,[6] a considerable majority of young people in youth detention report some form of mental illness,[7–9] with over 50% suffering from three or more mental disorders, excluding conduct disorder.[10] Furthermore, up to 90% are reported to use substances at dangerous levels or have a substance dependency.[11]

In Australia, Indigenous youth have historically been over-represented in juvenile detention centres in every state and territory.[12] However, despite high rates of mental health problems and substance misuse within the adolescent forensic population, there is little data comparing the prevalence of mental health or substance misuse disorders between Indigenous and non-Indigenous young people in youth detention. This is despite the Indigenous youth having been identified in National Health policies as being at particular risk for mental illness.[13,14] Furthermore, there is currently no national database on the prevalence of mental disorders in the Indigenous population, as the Australian Bureau of Statistics (ABS) does not report details of the mental health of Indigenous Australians. This was due to concerns that past survey questions may not have been culturally appropriate,[15] though a subsequent ABS publication[16] suggested that high levels of mental health problems among Indigenous Australians could be extrapolated from other health-related data.[17] While the available evidence is not comprehensive, it does indicate that Indigenous youth in detention are likely to suffer from higher rates of mental health issues than their non-Indigenous peers.

Few young people in detention take advantage of available health care in the community prior to admission.[18] As a result, their mental health and substance misuse problems are frequently undiagnosed. Numbers of young people passing

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through detention centres are significant and the time available for a full psychological or drug use assessment is limited. An appropriate screening tool is therefore attractive for clinicians working in these settings, as it should enable the majority of young people with mental health problems to be identified and subsequently offered treatment. Furthermore, validated screening tools not only give a measured indicator for the level of unmet need, but also reduce the risk of under-diagnosing mental disorders in a setting where distress is to some degree omnipresent and the consequential blunting of clinical sensitivities is often a concern. However, despite these potential benefits, we are aware of no such measures routinely being used in Australian youth detention settings or which have been standardised for the Australian population.

The aims of this study were threefold. First, to provide a better understanding of the mental health needs in an Australian adolescent forensic population. Second, to assess the usefulness of the Massachusetts Youth Screening Instrument Version 2 (MAYSI-2)[19] in providing a preliminary assessment of those needs. Third, to explore the level of mental health problems in specific vulnerable populations within detention, including Indigenous youth. Given that females in detention have also been identified as a priority group in National Mental Health Policies,[20] and are reported to suffer higher rates of behavioural problems and mental illness than males,[21,22] it was hypothesised that they would screen higher than males for mental health disorders.

In America, the majority of states screen young people upon entry into youth detention.[23] The MAYSI-2, a 52-item screening tool, was developed in part to identify young people aged 12–17 years within the youth justice system at greatest risk for serious mental, emotional or behavioural disorders. The MAYSI-2 has been found a valid and reliable screening tool in the United States, with clinical 'cut-off' scores having been normed in over 70 000 American young people in detention.[23,24]

The MAYSI-2 screens for 7 scales of mental health or behavioural problems. Although not directly correlated to specific as Diagnostic and Statistical Manual of Mental Disorders psychiatric diagnoses, these scales have good psychometric properties and correlate to the Child Behaviour Checklist-Youth Self-Report.[19] The 8-item Alcohol and Drug scale is intended to identify youths who are at risk of substance misuse or dependence. A screening cut-off score of four positive responses out of eight is used. The 9-item Angry–Irritable scale (cut-off: five positive responses) addresses explicit feelings of anger and vengefulness, as well as a tendency toward tension, frustration and irritability. The 9-item Depressed–Anxious scale (cut-off: three positive responses) assesses symptoms of depression and anxiety. A 6-item Somatic Complaints scale (cut-off: three positive responses) screens for somatic-related complaints. The 5-item Suicide Ideation scale (cut-off: two positive responses) assesses thoughts and intentions about self-harm, as well as depressive symptoms that may present an increased risk for suicide. A 5-item Thought Disturbance scale screens for perceptual distortions that are frequently associated with psychotic disorders. In addition, it screens for symptoms of derealisation that may be an early indicator for psychosis, but which also occurs in anxiety or dissociative states. The 4-item Thought Disturbance scale (cut-off: one positive response) is calculated for males only because of its psychometric properties and factor structure. Finally, a 5-item gender-specific Traumatic Experience scale identifies young people who have been exposed to significant traumatic events. Unlike the other six scales that screen for mental health problems over the previous 'few months', the Traumatic Experience scale screens for traumatic events across the individual's life-span. It is gender-specific and unlike the other scales, specific cut-off scores have not been published.[19]

Method

The study was carried out in a Queensland youth detention centre by the Mental Health Alcohol Tobacco and Other Drugs Service (MHATODS). MHATODS is a dedicated multidisciplinary dual diagnosis service providing mental health and substance assessment and treatment for young people aged 10–17 years held in custody. With the exception of a very small number of young people involuntarily treated under Queensland's Mental Health Act 2000, all attend on a voluntary basis. The history and nature of the service is detailed elsewhere.[25]

All young people admitted into the centre are reviewed for medical problems by resident nursing staff. Over a 6-month period, all young people admitted into the detention centre were automatically referred to MHATODS for an assessment. As MHATODS patients, all the young people referred were informed of the role of MHATODS, the voluntary nature of their involvement with the service and completion of the MAYSI-2, as well as the relevant issues of confidentiality and consent. Young people read the questions themselves and circled 'yes' or 'no' whether the item had been true for them within the past few months. A fifth grade reading level is required; those that struggled had the questions read to them. MHATODS collected demographic data, including indigenous status and gender, on all young people referred. Young people readmitted into custody within a 3-month period were referred to MHATODS but not asked to complete a further MAYSI-2. However, young people who had been readmitted into detention after an absence of over 3 months were asked to complete another MAYSI-2 in order to screen for changes in their mental health or substance misuse status. Young people who were subsequently screened as at risk for mental problems or otherwise assessed as suffering from mental health or substance use issues were offered treatment.

Results

A total of 402 young people (298 male, 104 female; 212 Indigenous, 190 non-Indigenous) were admitted into detention and referred to MHATODS. Allied health staff working for MHATODS had a daily presence in the centre during the working week, and a child and adolescent psychiatrist consulted twice weekly. Nevertheless, because of the rapid turnover through the centre, 170 young people (121 male, 49 female; 65 Indigenous, 105 non-Indigenous) were released from detention prior to assessment. There was no statistical difference between the numbers of males and females referred but released prior to assessment. However, non-Indigenous adolescents were significantly more likely to be released prior to an assessment than their non-Indigenous peers ($\chi^2 = 24.9$; $P < 0.001$).

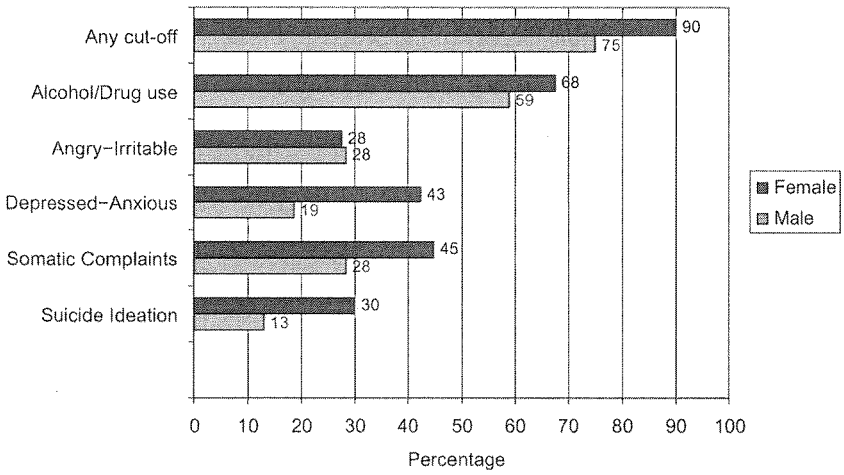

Fig. 1 Percentage of males ($n = 124$) and females ($n = 40$) scoring above screening cut-off on each scale, excluding Traumatic Experiences (to the nearest whole number).

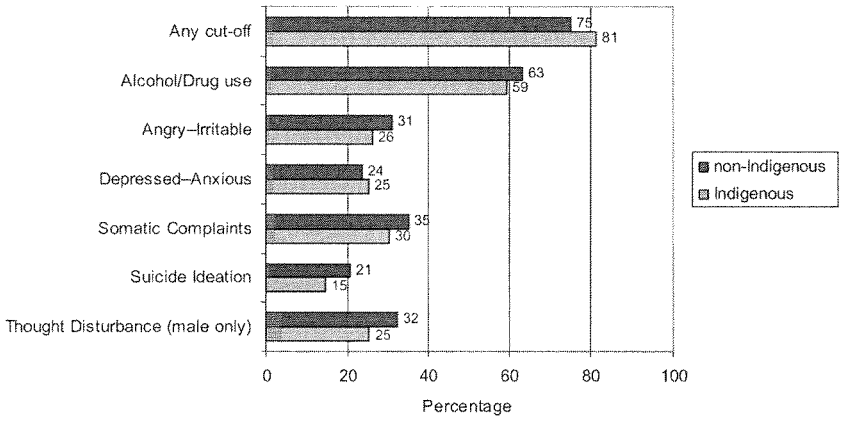

Fig. 2 Percentage of non-Indigenous ($n = 68$) and Indigenous ($n = 96$) young people scoring above the screening cut-off on each scale, excluding Traumatic Experiences (to the nearest whole number).

Of the remaining 232 referrals, 54 (44 males, 10 females; 39 Indigenous, 15 non-Indigenous) refused an assessment. There was no significant difference between the numbers of males or females, or Indigenous and non-Indigenous young people who refused to be seen. One young person became agitated and was unable to complete the MAYSI-2. Thirteen young people were readmitted into detention within 3 months of their last release and were not required to recomplete the MAYSI-2. A total of 164 young people (124 males, 40 females; 96 Indigenous, 68 non-Indigenous) with a mean age of 14.9 years (±1.3 years) successfully completed the MAYSI-2; three of whom were assessed twice over the study period.

High levels of mental health problems were reported, with 75.0% of all males and 90.0% of all females (Fig. 1), and 81.2% of Indigenous and 75.0% of non-Indigenous young people (Fig. 2) scoring above the clinical cut-off on at least one of the scales, excluding Traumatic Experiences. Unfortunately, final numbers prevented multivariate comparisons between gender and race. Based on the five validated scales that males and females share in common, males screened highest for Alcohol and Drug Use (58.9%), Angry–Irritable (28.2%) and Somatic Complaints (28.2%). Females screened highest for Alcohol and Drug Use (67.5%) and Somatic Complaints (45.0%), but in addition had elevated rates on the Depressed–Anxious (42.5%) and Suicide Ideation (30.0%) scales (Fig. 1). Chi-squared analyses showed females screened for significantly higher mental health problems than males across three scales (Depressed–Anxious, $\chi^2 = 9.41$; $P < 0.01$: Somatic Complaints, $\chi^2 = 3.89$: $P < 0.05$: and Suicide Ideation $\chi^2 = 6.24$; $P < 0.05$). No significant gender difference was found for the Alcohol and Drug Use or Angry–Irritable scales (Table 1). Large standard deviations indicate a skewing of data to the left. Although rates remained high, there was no significant difference between Indigenous and non-Indigenous youth across the five scales, with Indigenous young people scoring lower on all scales except Depressed–Anxious (Fig. 2 and Table 2). The Thought Disturbance scale was calculated for males only, with no significant difference in positive screens reported between Indigenous (25.0%) and non-Indigenous males (32.1%) (Fig. 2).

As the Traumatic Experience scale is gender-specific, an accurate comparison between males and females was unable to be determined although an analysis was used to establish if there were cultural differences in reported scores between males and females. Mean Traumatic Experience scores for non-Indigenous

Table 1 Mean scores and standard deviations on the Massachusetts Youth Screening Instrument Version 2 by gender

	Cut-off scores	Males mean (± standard deviation)	Females mean (± standard deviation)
Alcohol/Drug use	4 of 8	4.0 (2.4)	4.00 (2.2)
Angry–Irritable**	5 of 9	3.2 (2.5)	3.45 (2.5)
Depressed–Anxious*	3 of 9	1.4 (1.8)	2.65 (2.4)
Somatic Complaints*	3 of 6	1.7 (1.8)	2.43 (1.9)
Suicide Ideation	2 of 5	0.5 (1.0)	1.15 (1.6)

*$P < 0.05$; **$P < 0.01$.

Table 2 Mean scores and standard deviations on the Massachusetts Youth Screening Instrument Version 2 by race

	Cut-off scores	Indigenous mean (± standard deviation)	Non-Indigenous mean (± standard deviation)
Alcohol/Drug use	4 of 8	3.9 (2.3)	4.2 (2.4)
Angry–Irritable	5 of 9	3.1 (2.4)	3.5 (2.7)
Depressed–Anxious	3 of 9	1.7 (2.0)	1.8 (2.0)
Somatic Complaints	3 of 6	1.8 (1.9)	2.0 (1.8)
Suicide Ideation	2 of 5	0.6 (1.2)	0.8 (1.2)
Thought Disturbance (male only)	1 of 4	0.5 (0.9)	0.6 (1.0)

Table 3 Mean scores and standard deviations on the Massachusetts Youth Screening Instrument Version 2 by gender and race for Traumatic Experiences

	Indigenous mean (± standard deviation)	Non-Indigenous mean (± standard deviation)	% age ≥1		% age ≥3	
			I	NI	I	NI
Males	1.1 (1.8)	1.9 (1.4)	57.6	83.9*	17.6	30.4
Females	2.5 (1.8)	2.5 (2.1)	82.1	75.0	50.0	53.6

*$P < 0.01$. I, Indigenous; NI, Non-Indigenous.

males (1.9) was higher than Indigenous males (1.1), and non-Indigenous males were statistically more likely to report at least one traumatic event than Indigenous males (83.9% vs. 57.6%); $\chi^2 = 9.96$; $P < 0.01$. Other studies have used a cut-off of three on the Traumatic Experience scale as a measure for significant trauma exposure.[26] Using this cut-off, 30.4% of non-Indigenous males and 17.6% of Indigenous males reached this threshold, although lower numbers meant thatthis difference now failed to reach statistical significance (Table 3). High Traumatic Experience scores were reported in non-Indigenous (mean = 2.5) and Indigenous (mean = 2.5) females, with 75.0% of non-Indigenous and 82.1% of Indigenous females and screening at least one traumatic event. Fifty per cent of non-Indigenous and 53.6% of Indigenous females reported three or more events (Table 3). Unlike males, there was no significant difference in reported scores when a threshold of one or three was used. However, low numbers mean that these results should be treated with caution.

Discussion

This study confirmed the high rates of mental health problems in the adolescent forensic population, with the vast majority of young people screening for at least one mental health issue. Of particular concern were the high rates of alcohol and drug use, depression, anxiety and suicidal ideation, particularly in females.

Although males are more likely to be admitted into youth detention than females, there is good evidence to show that this gap has narrowed over the last 10 years[27] and may be associated with increasing violent behaviour and serious mental health issues in these adolescent girls.[28] This study clearly demonstrated that females in youth detention not only screen for high rates of mental health problems on the MAYSI-2, but do so at rates which are generally significantly higher than males. These results are comparable to those reported in a large American study,[26] where females screened for higher rates than males on

all but the Angry–Irritable scale, with significantly elevated scores on the Depressed–Anxious, Somatic Complaints and Suicide Ideation scales, and is in keeping with other studies which have reported greater rates of mental illness for females in youth detention.[8,21,22] One possible explanation for such gender differences could be that magistrates working within the youth justice system are reluctant to remand females into custody. Those remanded may therefore have higher rates of behavioural problems, psychological disturbance or delinquent behaviours.

The high rates of reported traumatic events in this study are indicative of early vulnerability and the violence to which these young people have been subjected during childhood. Females reported higher levels of trauma than males. A growing body of literature has shown that childhood trauma is associated with a range of mental health problems including mood disorders and suicidal plans[29] and psychotic phenomena,[30,31] with females more likely to be subject to abuse[7] and other adverse life events.[32] It is not unreasonable to hypothesise that the increased prevalence of mental health problems reported by females was associated with their increased rates of previous trauma and abuse.

This study failed to demonstrate that Indigenous youth in detention screened for higher rates of mental health problems than non-Indigenous youth. This may reflect a true lack of difference in the prevalence of mental illness between Indigenous and non-Indigenous youth within this forensic population, although a more likely explanation would be that the MAYSI-2 is not culturally appropriate for Indigenous Australians. There is evidence that Indigenous youth have difficulties in self-reporting mental health problems, particularly with non-Indigenous clinicians.[33,34] Anecdotally, Indigenous young people frequently appeared perplexed about the underlying concepts of a number of questions asked, including their nature, structure and vocabulary. For instance, although Indigenous youth in this detention centre suffer from high rates of volatile substance abuse (unpublished data), many failed to screen positive on the Alcohol and Drug use questions as they did not view volatile substances (i.e. glue, paint and petrol) as 'a drug'. Indigenous young people would frequently get confused when asked about somatic complaints. They would often struggle to answer questions concerning school attendance, given that high numbers had previously dropped out of schooling. A number of males had difficulty responding to the questions on thought disorder. However, on further assessment, those who screened over the cut-off on this scale frequently indicated that they had misunderstood the nature of the questions asked. Based on our results, we would therefore have reservations in recommending the MAYSI-2 as a valid screening tool for Indigenous youth. Nevertheless, it did highlight the alarming rates of mental health issues in Indigenous young people in detention and indicated the need for the development of an appropriate screening tool. For instance, the Westerman Aboriginal Symptom Checklist-Youth[35] has already been validated in community samples, although further research is required to demonstrate whether it is suitable within a forensic cohort.

There are a number of limitations to this study. First, our findings should be confined to adolescents within the youth justice system who have been admitted into detention, and it is unknown if the results of this study may be extrapolated to young people within the system but not remanded into custody. Second, young people may have under-reported mental health problems because of the associated stigma, and our findings could actually underestimate the true rate of mental health issues in this population. Third, because of the rapid turnover of young people through detention, over 40% referred to MHATODS were discharged from detention prior to review. The characteristics and mental problems of this population are unknown. Although there was no gender difference, non-Indigenous young people were significantly more likely to be released prior to assessment, leaving a study population bias towards Indigenous youths. However, those young people who completed the MAYSI-2 were statistically representative of the available detention centre population. Finally, it is recommended that the MAYSI-2 be completed within 4 h of a young person entering detention.[23] This was not possible because of resource constraints particularly over the weekend, although majority of adolescents admitted into detention on a weekday were assessed within 48 h. There is evidence that adolescents have higher scores on screening the longer they remain in detention.[26] However, it is uncertain if this reflected under-reporting of symptoms of those administered with the MAYSI-2 within the recommended time, or whether later administration leads to over-reporting of symptoms.

Despite the above limitations, these findings have contributed to our understanding of gender and cultural differences in the prevalence of mental health problems within the Australian youth detention centres. Given the finding of high levels of mental health problems and trauma in this population, it is evident that there are advantages in providing mental health assessments for all young people admitted to detention as a matter of course and this has consequently become standard practice in MHATODS.

Although it is sometimes difficult to see beyond the problematic conduct and serious offences committed by young people in detention, this study demonstrated the very significant mental health needs of the adolescent forensic population. In Australia, paediatricians have been at the forefront of advocacy for health policies and initiatives that focus on the needs of young people. They have promoted awareness that successful programs in childhood and adolescence may lead to positive outcomes in multiple domains, ranging from improved health care and enhanced academic performance, to better social skills and more successful relationships later in life. The psychological needs of adolescents within youth detention should cause paediatricians great concern because of the risk that these young people pose to themselves through undiagnosed or untreated mental illness and substance misuse, and to the community through the cost of recidivism and lost opportunities. However, as mental health problems are so widespread in this population, the accurate identification of those youths in need of mental health services is not in itself sufficient to improve the effectiveness of treatment programs. With increasing interest in reducing juvenile recidivism at both state and federal levels, the current challenge now is to develop appropriate clinical interventions that address their levels of psychiatric illness and significant abuse histories, preferably informed by evidence-based practice.

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