

Aboriginal prisoners and cognitive impairment: the impact of dual disadvantage on Social and Emotional Wellbeing

S. M. Shepherd,¹ J. R. P. Ogloff,² D. Shea,² J. E. Pfeifer¹ & Y. Paradies³

¹ Centre for Forensic Behavioural Science, Swinburne University of Technology, Australia

² Centre for Forensic Behavioural Science, Swinburne University of Technology, Victorian Institute of Forensic Mental Health (Forensicare), Australia

³ Alfred Deakin Research Institute for Citizenship and Globalisation, Deakin University, Australia

Abstract

Background Negligible information is available regarding the Social and Emotional Wellbeing (SEWB) needs of Aboriginal Australian individuals in custody with cognitive impairment. This is problematic given that Aboriginal people with cognitive impairment often experience dual disadvantage in the context of the justice system. This study sought to ascertain the relationship between cognitive impairment and mental health/cultural needs (SEWB) Aboriginal and Torres Strait Islander people in custody.

Method A sample of 122 Aboriginal and Torres Strait Islander people were administered a culturally themed semi-structured questionnaire in custodial settings in Victoria, Australia. The questionnaire included measures of cognitive impairment, SEWB and forensic needs. Analyses were performed to determine differences in the presence of SEWB and unmet custodial needs by level of cognitive impairment.

Results Findings revealed a diminished level of wellbeing for cognitively impaired participants across several factors. Cognitive impairment was associated with poorer coping mechanisms, additional

experiences of racism, difficulties handling emotions, discomfort around non-Aboriginal people and reduced access to meaningful activities in custody. All participants regardless of their level of impairment recognised the importance of cultural engagement; however, cognitively impaired participants had greater difficulty accessing/practicing cultural activities.

Conclusions Culturally responsive disability assistance should be available at all phases of the justice system for Indigenous people with cognitive impairment to ensure that equitable care is accessible and needs are addressed.

Keywords Aboriginal, cognitive impairment, prisoner health, Social and Emotional Wellbeing

In 2012, a young intellectually disabled Aboriginal¹ woman from Alice Springs, Rosie Ann Fulton was charged with driving offences after crashing a stolen vehicle. Having been born with foetal alcohol syndrome and demonstrating the mental capacity of a child, she was ruled unfit to plead by a magistrate. Despite not being convicted, the next two years of Ms. Fulton's life was spent hundreds of kilometres away from friends and family in a prison in the neighbouring state of Western Australia. She joined

Correspondence: Dr Stephane Shepherd, Centre for Forensic Behavioural Science, Swinburne University of Technology and Forensicare, 505 Hoddle Street, Clifton Hill, VIC 3068, Australia (e-mail: sshpherd@swin.edu.au).

¹ The terms 'Aboriginal' and 'Indigenous' are used interchangeably in this report.

dozens of intellectually disabled Indigenous people already indefinitely detained in prisons around Australia due to an absence of appropriate accommodation. After her plight received national attention through a media report in 2014, Ms. Fulton was eventually released into community care prompted by a petition calling for her release which attracted 120 000 signatures. Yet, less than a fortnight after her release from the Western Australian prison where she had resided for almost two years unconvicted, she was arrested for assaulting both police and her carers and was back in custody in Alice Springs. The unfortunate case of Rosie Ann Fulton captured the grim reality of many cognitively impaired Indigenous people who come into contact with the criminal justice system. Former Aboriginal and Torres Strait Islander Social Justice Commissioner Tom Calma commented:

‘...every time an Indigenous child with a cognitive disability or mental health issues is held in custody because there is nowhere else for them to go, this is discrimination. Every time the juvenile justice system fails in their knowledge of the developmental and mental health issues and places an Indigenous child in an inappropriate and unsupported placement, this is undermining their sense of dignity and worth.’ (Australian Human Rights Commission 2008, pp. 6).

The needs of Indigenous people in custody who are cognitively impaired are poorly understood. Ms. Fulton’s imprisonment and re-arrest exposed deficits in the criminal justice system and associated health services in the face of complex needs of Indigenous people with cognitive impairment. Given that Indigenous Australians are already overrepresented in custody and continue to endure the deleterious impacts of colonisation, it is important that specific needs are safely managed in a culturally responsive manner.

Cognitive impairment and the justice system

Cognitive impairment describes deficits in mental processing affecting memory, reasoning, comprehension and learning ability. People who are cognitively impaired are often intellectually disabled (ID) or have an acquired brain injury (ABI) and are overrepresented in the criminal justice system (Hayes 2000; Vanny *et al.* 2009; Indig *et al.* 2011; Jackson *et al.* 2011; Baldry *et al.* 2013; Dias *et al.* 2013). ID is characterised by impairments in intellectual ability

and adaptive functioning and is regularly identified utilising standardised IQ scores of less than 70 (American Psychiatric Association 2013). Australian general population estimates for ID are approximately 2.9% (Australian Bureau of Statistics 2014a, 2014b) although such estimates often incorporate other cognitive disorders. Much higher rates have been found in Australian offender cohorts where ID prevalence has ranged from 8 to 15% (Frize *et al.* 2008; Indig *et al.* 2011; Dias *et al.* 2013). This proportion is significantly higher when including offenders identified as having IQ scores in the borderline ID range (<80). An ABI is an injury obtained after birth as a result of a variety of occurrences, including external force to the brain (e.g. traumatic brain injury – TBI), dementia, stroke, heart attack and chronic substance abuse (Australian Institute of Health and Welfare 2007). A Victorian study discovered that 42 and 33% of male and female prisoners, respectively, demonstrated evidence of an ABI (Jackson *et al.* 2011). Rates of TBI in particular are found to be elevated in both juvenile (Farrer *et al.* 2013) and adult prison cohorts internationally with estimated ranges of 60–65% (Shiroma *et al.* 2010; Williams *et al.* 2010). This is significantly higher than the general rate of TBI found in developed countries which are approximately 12% (Frost *et al.* 2013).

Offenders with a cognitive disability experience greater numbers of prior custodial episodes, are more likely to be charged, are less likely to receive parole, are more likely to be classified as a high security risk and are younger at first contact with the justice system (Cockram 2005; Holland *et al.* 2007; Frize *et al.* 2008; Baldry *et al.* 2012; Moore *et al.* 2014). Moreover, research indicates that cognitively impaired offenders are more likely to re-offend compared to other offenders (Cockram 2000; Holland & Persson 2011; Moore *et al.* 2014; see Riches *et al.* 2006; Shepherd *et al.* 2016). In addition, outcomes are decidedly worse for offenders with comorbid diagnoses, or complex needs (Klimecki *et al.* 1994; Hobson & Rose 2008; Baldry *et al.* 2012; Dias *et al.* 2013).

Several factors engender the increased likelihood of criminal justice system contact for people with cognitive impairment. These include difficulties regulating behaviour, impaired decision making, problems communicating, misunderstanding criminal justice procedures, poor memory and

attentiveness and social immaturity (Cockram 2000; Vanny *et al.* 2008; Gray *et al.* 2009; Rushworth 2011; Brown & Kelly 2012; Simpson 2013; Australian Human Rights Commission 2014). In many cases, recalcitrant behaviour may be misinterpreted as a purposeful lack of cooperation rather than the result of impairment. This may result in exclusion from programming and services that promote social inclusion. Associated concerns include socio economic disadvantage, lower levels of education, unemployment, visibility to police, lower levels of community support and unstable accommodation (Glaser & Deane 1999; Holland *et al.* 2002; Holland & Persson 2011; Rushworth 2011; Baldry *et al.* 2012; Baldry *et al.* 2013; Dias *et al.* 2013; Simpson 2013; Mackelprang *et al.* 2014; Bhandari *et al.* 2015). People with cognitive impairment are additionally vulnerable to physical and sexual trauma, coercion, peer pressure and victimisation (Vanny *et al.* 2008; Baldry *et al.* 2012; Villamanta Disability Rights Legal Service Inc 2012; Baldry *et al.* 2013; Simpson 2013; Australian Human Rights Commission 2014; Mackelprang *et al.* 2014).

Indigenous Australians

While less is known about the prevalence of cognitive impairment among Indigenous offenders, research points to higher levels compared to non-Indigenous offenders (Simpson & Sotiri 2004; Frize *et al.* 2008; Dowse *et al.* 2011; Holland & Persson 2011; Baldry *et al.* 2012; Dias *et al.* 2013; Haysom *et al.* 2014; Bhandari *et al.* 2015). In a New South Wales cohort of 2731 adult prisoners with known mental health disorders and cognitive disabilities, higher rates of cognitive disability were discovered for Indigenous prisoners (Baldry *et al.* 2012). Being both Indigenous and possessing a cognitive disability is also associated with a greater number of overall police contacts and earlier first police contact. Cognitively impaired Indigenous offenders are at a greater risk of being rapidly processed into the criminal justice system. Other research has found that Indigenous status and the socio-economic profile of Indigenous offenders are perhaps stronger predictors of justice system contact than cognitive impairment (Frize *et al.* 2008; Trofimovs & Dowse 2014). Young Indigenous offenders have also been found more likely to obtain

IQ scores in the ID range compared to young non-Indigenous offenders in both custodial (Indig *et al.* 2011) and community settings (Frize *et al.* 2008).

Indigenous Australians have higher rates of disability than non-Indigenous Australians across all age groups (ABS 2014a), including four times the rate of ID (ABS 2007) and elevated rates of Foetal Alcohol Syndrome (see NAAJA 2013; Closing the Gap Clearinghouse 2014; Commonwealth of Australia 2015) in some Aboriginal communities. Higher instances of disability occur against a backdrop of marginalisation, disadvantage, intergenerational trauma, discrimination, family and cultural breakdown, unemployment and poorer educational opportunities (Glasson *et al.* 2005; Sotiri & Simpson 2006; Australian Human Rights Commission 2008; Dingwell & Cairney 2010; Productivity Commission 2011; Hollinsworth 2013; NAAJA 2013). Many of these challenges are the result of the ongoing effects of colonisation and the stolen generations (Sherwood 2013). Moreover, Indigenous Australians with a cognitive disability encounter several barriers to accessing disability support services. There is a dearth of both accessible and culturally appropriate disability services (Simpson & Sotiri 2004; Glasson *et al.* 2005; Australian Human Rights Commission 2008; Productivity Commission 2011; VALS 2011; Bohanna *et al.* 2013). In addition, many of the tools employed to determine cognitive impairment may be culturally inappropriate (Dingwell *et al.* 2013; Dingwell *et al.* 2014). Cognitive impairment can be misdiagnosed in Indigenous cohorts due to differing notions of space and time, language differences and discounting cultural conceptualisations of health (LoGiudice *et al.* 2006; Australian Human Rights Commission 2008; Dingwell & Cairney 2010; Productivity Commission 2011; Bohanna *et al.* 2013; NAAJA 2013). Existing cognitive impairment screens are framed within western conceptualisations of disability and may not encompass Indigenous relevant norms (Sotiri *et al.* 2012; Dingwell *et al.* 2014). As such, the verbal intelligence subsets of intelligence tests are sometimes discarded to avoid cultural bias (see Sattler 2001). The Kimberley Indigenous Cognitive Assessment (KICA) is the only culturally themed approach available for use with Indigenous Australians; however, it was developed to primarily screen for dementia (LoGiudice *et al.* 2006).

Social and Emotional Wellbeing

Indigenous mental health is often characterised holistically as Social and Emotional Wellbeing (SEWB), encompassing physical, spiritual, cultural and social dimensions (Department of Health and Ageing 2004). SEWB has less of an individualised emphasis, focusing on community dynamics and environmental stressors and connections to ancestry and culture. Poor SEWB is often associated with cultural dislocation, unresolved trauma, intergenerational grief, disadvantage, racism, incarceration, violence and poor health (Zubrick *et al.*, 2010). In contrast, connection to family, culture, self-determination and resilience are believed to bolster SEWB (Closing the gap clearinghouse 2013). While previous community surveys point to SEWB problems in the general community (Australian Institute of Health and Welfare 2009), Aboriginal people in custody are also likely to have lower levels of SEWB given both the challenging life circumstances that led to incarceration and the often isolating and stressful experience of imprisonment (Maxwell *et al.* 2013). The unmet SEWB needs of Aboriginal people in custody with cognitive impairment may be more acute given the *double disadvantage* of this sub-group.

Study rationale

It is apparent that levels of cognitive impairment for Indigenous Australians are higher than non-Indigenous Australians in both custodial settings and the general community. Moreover, the relationship between cognitive impairment and SEWB is not well understood. No previous study has empirically investigated this association in any Australian Aboriginal population, let alone a correctional population. Furthering our knowledge in this area is necessary to strengthen culturally appropriate disability service delivery in correctional environments. The key research aims include identifying (1) levels of SEWB and (2) the extent of unmet needs among cognitively impaired and non-cognitively impaired Aboriginal people in custody.

Method

Participants

Participants in this study were 122 adult Aboriginal and/or Torres Strait Islander male ($n = 107$) and

female ($n = 15$) prisoners who were remanded or sentenced in Victorian regional and metropolitan prisons. The sample size is representative of the number of Aboriginal and Torres Strait Islander prisoners in Victoria prisons (8%), which is proportionally the smallest of any state in Australia (ABS 2015). The mean age of the sample was 34.4 ($SD = 10.3$) years. To be eligible to participate in the study, participants were required to have their Aboriginal and Torres Strait Islander status formally registered with prison services. Only two prisoners declined to participate after the study was explained to them. Ethics approval was granted by two committees: Justice Human Research Ethics Committee and the Swinburne University Human Research Ethics Committee.

Procedure

Clients were initially informed about the study by Aboriginal Wellbeing/Liaison Officers. Those who were interested in participating were then introduced to researchers and provided with an explanatory statement. The statement was verbally reviewed by an Aboriginal and Torres Strait Islander research officer with the client. If the client wished to take part in the study, they were asked to sign a consent form after demonstrating an understanding of the purpose of the study and what was required of them.

Interviews were conducted between January and October 2012. They were conducted in teams comprising a culturally trained mental health clinician and an Aboriginal and Torres Strait Islander research officer. The Aboriginal and Torres Strait Islander research officer conducted the interview relating to demographic information and SEWB. Interview times ranged from 50 to 240 min in length. All interviews were conducted in private rooms visible to custodial staff.

Measures

A semi-structured questionnaire was developed in consultation with an advisory group including Aboriginal psychologists. Key areas covered included: Participant details/Demographics, SEWB information, Cognitive Impairment and Needs/Service Access.

Demographics

This section related to basic participant details including gender, level of education and employment history.

Cognitive impairment

Impairment was assessed via screening for intellectual disability (ID). Non-verbal intellectual functioning components (Matrix Reasoning; Block Design) of the Wechsler Abbreviated Scale of Intelligence (WASI, The Psychological Corporation 1999) were employed generating a standardised score based on the performance IQ quotient. The Full-Scale intelligence quotient was not assessed for reasons of cultural fairness, given its inclusion of vocabulary subsets. The study employed an IQ cut-off of 80 which encompasses both participants with an ID (<70) and those who scored in the borderline range (70–80). Borderline data is often presented alongside official ID data in disability research and falls under the broader *cognitive impairment* classification. The borderline range and ID groups were collapsed into a ‘cognitively impaired’ subgroup to contrast with a non-cognitively impaired subgroup who presented with IQs above 80.

Participants were also administered the KICA (LoGiudice *et al.* 2006). Although a dementia screen, the KICA is sometimes utilised to assess cognitive functioning in Indigenous Australians in the absence of a culturally relevant validated screen for ID/Participants were also asked a series of questions pertaining to previous incidences that potentially resulted in traumatic brain injury.

Social and Emotional Wellbeing

The SEWB component of the survey (see Appendix 1) was developed through consultation with Aboriginal psychologists and reviewing regional Aboriginal risk factor literature. Details about cultural identification, cultural knowledge, family and community connectivity, positive wellbeing, life experiences and life stressors were recorded. The survey comprises 48 items, 15 of which are dichotomous (Yes/No) and 33 which are rated on a Likert spectrum (Not at all = 0, A little bit = 1, Sometimes = 2, Most of the time = 3, All of the time = 4).

Needs/Access to Services

Participant needs and post release plans were identified by the Camberwell Assessment of Need – Forensic Short Version (CANFOR SV, see Appendix). The CANFOR SV (Thomas *et al.* 2003) is a validated assessment instrument designed to identify the needs of forensic mental health service users. It considers 25 areas of patient need. Items are recorded as follows; 0 = No problem, 1 = Met need, 2 = unmet need. Items are additionally considered dichotomously (0 = No, 1 = Yes) in relation to their contribution to the index offence.

Data analysis

Descriptive statistics were performed to characterise the sample (age, gender, level of education, employment status). Using a two-tailed *p*-value of 0.05, cognitively impaired (Borderline IQ range and below) and non-cognitively impaired (Above the borderline IQ cut-off) participants were compared across SEWB items and the CANFOR SV total and domain scores. Mann Whitney *U* tests (for ordinal variables) and chi-square tests (for dichotomous variables) were employed to identify significant group differences where appropriate. Odds ratios were calculated to determine if the presence of cognitive impairment increased the odds of exposure to outcome variables. False discovery rate (FDR) controls to correct for number of false positives were applied where necessary.

Results**Participant demographics**

Demographical information by level of impairment is presented in Table 1. Overall participants reported a lifetime average of 72.70 (*SD* = 78.78) months in adult prison and 14.96 (*SD* = 25.81) months in youth custody. Over 80% of the cohort was imprisoned for a violent offence and 16.4% for a sex offence. Cognitively impaired participants were more likely to have breached a legal order [$\chi^2(2) = 8.81, p < .05$] as their index offence. The majority of the sample had not completed year 10 (73%). No significant differences were obtained by level of impairment [$\chi^2(1) = 5.01, p = .48$]. Over 60% (*N* = 69) of participants were born in the state of Victoria. A

Table 1 Sample demographics by impairment status

	CI M(SD)	No CI M(SD)	U	p
Age	28.94 (8.50)	36.08 (10.52)	592.00	.001
WASI IQ score	73.88 (6.16)	98.49 (10.66)	00.000	.000
Time in custody this occasion (months)	12.29 (14.75)	25.29 (32.72)	810.50	.09
Time in custody lifetime (months)	57.48 (70.66)	78.20 (82.81)	801.50	.16
How many times in adult prison	6.21 (9.28)	4.90 (4.01)	1006.50	.85

N = 111. WASI IQ score (performance total)

further 20.4% (*N* = 23) were born in the state of New South Wales. For over three-quarters of the sample (77.5%), Centrelink (Government support payments) was the main source of income. Cognitively impaired participants were significantly more likely to be receiving Centrelink payments as their main source of income [$\chi^2(4) = 10.46, p < .05$].

Cognitive impairment

The KICA had a mean total score of 37.79 (*SD* = 3.75; *Range* = 0–39) among the study population. Only one participant received a total score below 33, signifying potential dementia. The extremely low prevalence of impairment identified by the KICA precluded further statistical analysis utilising information from this instrument. The performance components (Matrix Reasoning and Block Design) of the WASI generated an adjusted mean IQ score of 93.17 (*SD* = 14.16, *Range* = 54–128). Approximately 70% of the sample was below the community average IQ of 100. After implementing the ID/Borderline ID cut-off IQ score of 80, 21.6% of the cohort was found to present with impaired cognitive functioning. All participants were then asked supplementary questions pertaining to potential TBI. Over 80% of the sample had previously lost consciousness/blacked out, over 88% had suffered a blow to the head, and almost 50% of the sample had experienced a serious motor vehicle accident. No significant differences by level of impairment were detected across the three TBI related questions.

Social and Emotional Wellbeing

Participants felt equally connected to culture and community across levels of impairment. Both groups reported that acquiring cultural knowledge and being

familiar with family history are equally important to their wellbeing. However, differences on particular facets of SEWB were discovered across impairment categories (see Table 2). Participants with cognitive impairment were more vulnerable to poor coping mechanisms and problem behaviours when facing life difficulties compared with participants without cognitive impairment.

Table 3 reports significant differences across dichotomous SEWB items by cognitive impairment category. Participants with cognitive impairment were more likely to report having an illness or disability over the past year. They were also over four times more likely to have had a family member in prison and almost 2.5 times more likely to report negative treatment because of Indigenous heritage compared to participants without cognitive impairment although the latter finding was not significant. Both groups reported equally high rates of family breakdown, family deaths, witnessing violence and personal drug and alcohol abuse.

Needs

The CANFOR Short version was employed to determine the range of needs experienced by the participants. No significant differences were obtained between impairment groups by total and domain needs scores (see Table 4). Both groups reported approximately 4 unmet needs.

Follow-up analyses across CANFOR-SV individual items revealed two significant differences (see Table 5). Cognitively impaired participants scored significantly lower on daytime activities and access to a telephone compared to participants who were not cognitively impaired. CANFOR-SV items were then analysed in relation to their contribution to the

Table 2 Meaningful SEWB item (ordinal) differences by impairment status

Item	<i>U</i>	<i>P</i>	θ
I am able to face problems without gambling, drugs, alcohol or harming others	711.50 ^a	.03	.36
How often have you been able to practice or live your spirituality – past 12 months	659.50 ^a	.03	.36
I am able to handle painful feelings like sadness, anger and fear.	697.00 ^a	.01	.34
Do you feel uncomfortable around non Aboriginal and Torres Strait Islander people	512.00 ^b	.000	.25
How important is knowing about and exercising your rights as an Aboriginal and Torres Strait Islander person for your wellbeing	806.00 ^a	.06	.39

N = 103–110. FDR controlled to .10; Superscript *a* = no CI group higher. *b* = CI group higher.

participant's index offence. Only item 10 (Safety to self) approached significance $\chi^2(1) = 3.09, p = .08$. Here, participants without cognitive impairment were 3.7 times more likely than cognitively impaired participants to have had self-harming behaviour difficulties impacting their index offence.

Discussion

Recent reports and the plight of Rosie Fulton have drawn attention to the overrepresentation of people with cognitive impairment in custody and the disproportionate impact this has for Aboriginal Australians. This study sought to further this information by examining whether a presentation of cognitive impairment engendered lower levels of SEWB and unmet custodial needs for Aboriginal people in prison. Results revealed a diminished level of wellbeing for cognitively impaired participants. Cognitive impairment was associated with poorer coping mechanisms, additional experiences of racism, difficulties handling emotions, discomfort around non-Aboriginal people and reduced access to culturally meaningful activities in custody.

The cross-cultural limitations of existing widely used cognitive disability measures are acknowledged

in the literature given their reliance on the norms and expectations of the dominant culture. Although perhaps more culturally fair, administering the performance components of the WASI exclusively may not entirely reduce partiality and so some degree of over/under identification of cognitive impairment may occur when assessing Aboriginal people. In response, the culturally themed KICA instrument was employed alongside an abbreviated version of the WASI. The KICA was unable to meaningfully identify cognitive impairment at a realistic rate (one participant identified with CI) that approximated expected correctional estimates and was therefore not subject to further analyses. The KICA is a dementia-specific screen normed on adults over 45 years of age which is likely to have restricted its utility (Dingwell *et al.* 2013; Dingwell *et al.* 2014) in this study. Its use in Aboriginal populations beyond dementia screening is an indication of the paucity of culturally specific instruments available to Aboriginal people.

This bulk of SEWB and CANFOR items which produced largely commensurate needs scores across level of impairment. There were, however, some notable exceptions. Cognitively impaired participants had greater difficulty confronting negative life events, succumbing to deleterious coping mechanisms such

Table 3 Meaningful SEWB item (dichotomous) differences by impairment status

Item	CI % (n)	No CI % (n)	χ^2	<i>P</i>	OR
Did you have a really bad illness or disability – past 12 months	45.8 (11)	20.7 (18)	6.16	.01	3.24
Did you have any family members in prison	83.3 (20)	53.5 (46)	6.96	.008	4.35
Were you treated badly because of your Indigenous heritage	47.8 (11)	27.1 (23)	3.62	.06	2.47

N = 108–111. FDR controlled to .10

Table 4 Camberwell Assessment of Need – Forensic Short Version by impairment status

CANFOR – SV	CI M (SD)	No CI M(SD)	U	P
Met needs	6.38 (3.56)	5.69 (3.41)	910.00	.34
Unmet needs	4.17 (3.50)	3.94 (3.16)	1022.00	.87
Total number needs	10.54 (3.46)	9.52 (4.31)	840.50	.14

N = 111.

as substance abuse. Possessing a cognitive disability in such environs with limited supports and inaccessible specialised services would increase the risk of problem behaviours such as alcohol and drug abuse. Similarly, cognitively impaired offenders reported trouble handling painful feelings including sadness, anger and fear. Expressions of anger and other acute emotions experienced by Indigenous offenders have been eloquently illustrated by Day *et al.* (2006). Anger and violence are often intertwined and perpetrated in a context of intergenerational powerlessness, punctuated by frequent episodes of loss, discrimination, grief and ongoing family problems (Day *et al.* 2006). These feelings may be compounded in light of the additional vulnerabilities that follow from cognitive impairment. Other significant concerns facing the cognitively impaired subgroup included a greater likelihood of having family members in prison and experiencing racism. While both issues are commonly reported in both general and correctional Aboriginal populations (Paradies & Cunningham 2009; Shepherd *et al.* 2014), cognitively impaired offenders often have ‘combinations of disadvantage’ which may reflect their individual and extended family’s increased likelihood of being in custody. Perceived racism may also be elevated given the ‘dual discrimination’ status of Indigenous people with a disability. Finally, the cognitively impaired subgroup experienced greater difficulty practicing

spirituality. This finding is regrettable given that cultural engagement was considered equally important by participants regardless of their level of impairment. Cultural engagement has been described as ‘treatment’, through the cultivation of a stronger identity, self-esteem building and a sense of purpose. Therefore, the lack of access to avenues of spirituality for cognitively impaired participants impedes potential treatment and the mitigation of stressors. Further to this finding, daytime activity needs were more likely to be unmet on the CANFOR instrument for cognitively impaired participants. These findings may point to both the lack of existing culturally themed programs and/or the lack of ongoing disability supports in place to ensure cognitively impaired clients are aware of, and able to access available cultural programs. Rigorous screening for cognitive impairment is necessary to identify which clients may require such a support system. Prior research has found that prisons can adjust to meet the needs of impaired offenders when screens on entry are widely administered (Murphy *et al.* 2015). Specialised custodial exit plans involving both Aboriginal health organisations and disability services should also be in place for individuals returning to the community. All efforts to assess Aboriginal clients within a cultural competency framework must be transparent, especially in the absence of an appropriate instrument.

Study findings should be considered in light of several limitations. First, some caution is advised when generalising the findings to Indigenous people in custody in other regions of Australia. Second, the performance component of the WASI was utilised as a proxy for cognitive impairment. Using predominantly the WASI meant that cognitive impairment may have been under-estimated as forms of ABI may not have been identified. Particularly as supplementary questions revealed that a large majority of the sample had previously experienced a potential

Table 5 CANFOR-SV item differences by impairment status

CANFOR-SV Item	U	P	ϕ
Daytime activities	779.50 ^a	.05	0.37
Telephone	779.50 ^a	.03	0.37

N = 111; FDR controlled to .10; Superscript *a* = no CI group higher. *b* = CI group higher.

traumatic brain injury. An accommodating IQ cut-off of 80 was employed which is higher than the traditional designated cut-off point of 70 for an ID. However, given that borderline ID is often included as cognitive impairment, this cut-off is justifiable, particularly given the dearth of research on this topic. Although the performance component of the WASI is deemed to be more culturally fair than the comprehensive version of the scale, questions still persist over its generalisability to Indigenous Australians. As such, a cautious interpretation of cognitive impairment output here is appropriate. Last, the small sample size may have resulted in low power to detect statistical significance of the identified trends.

Implications

Indigenous offenders with cognitive disability are perhaps the most vulnerable population in Australian prisons. In this study, possessing a cognitive disability rendered participants susceptible to diminished SEWB and unmet custodial needs.

Numerous initiatives are recommended to help address the needs of Indigenous offenders who are cognitively impaired. First, screening for cognitive disability (including Foetal Alcohol Spectrum Disorder) should be performed on entry to prison for every Indigenous prisoner using culturally appropriate instruments. As such, the development of a culturally appropriate cognitive screen for forensic settings is warranted. Existing instruments such as the abbreviated WASI and the KICA may be unsuitable in these unique circumstances. Given the high prevalence of mental health issues in custody and culturally specific conceptualisations of disability, cognitive impairment is in danger of being under-diagnosed or even unnoticed. Second, ongoing assistance is required for individuals presenting with cognitive impairment post-screen. It is apparent that cognitively impaired Indigenous offenders require improved access to a multitude of services in custody and in the community to meet their complex needs. Holistic service delivery is preferred and should feature cultural supports throughout – no one service can supply all the needs of one individual with complex needs, particularly individuals with cognitive impairment in custody. This requires collaboration and information sharing between health, correctional, employment, educational and disability services

(Murphy & Clare 2012). Community health organisations would also benefit from specialist disability training to better equip them in providing wellbeing supports for offenders transitioning back to the community. Last, culturally appropriate disability assistance networks should be available at every stage of the justice system for Indigenous people with cognitive impairment to ensure that equitable care is accessible.

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Appendices

Appendix I

Social and Emotional Wellbeing Questionnaire

Do you see yourself as being an Aboriginal and/or Torres Strait Islander person?

Are you Proud to be an Aboriginal and/or Torres Strait Islander person?

How often do you participate in Aboriginal and/or Torres Strait Islander activities or events (e.g. attend cultural events, going out bush)?

How often do you get a chance to hang out with Aboriginal and/or Torres Strait Islander people?

Do you identify with a tribal group, language group or clan, or traditional owner group?

Do you feel connected to your homeland or traditional country?

Do you feel connected to your community?

Do you feel connected to your culture?

I have the knowledge to teach younger members of my family about Aboriginal and/or Torres Strait Islander culture

I have learned about my Aboriginal and/or Torres Strait Islander culture from my family/community.

How important is knowing about your people's history and culture for your wellbeing?

How important is knowing your own family history for your wellbeing?

How important is knowing about and exercising your rights as an Aboriginal person for your wellbeing?

How important is spirituality for your wellbeing?

How often have you been able to practice or live your spirituality over the past 12 months?

How important is being able to give to your family and friends for your wellbeing?

How often have you been able to give to your family and friends over the past 12 months?

How important is being able to share with your family and friends for your wellbeing?

How often have you been able to share with your family and friends over the past 12 months?

How important is being with your family and extended family for your wellbeing?

How often have you been able to be with your family and extended family over the past 12 months?

How important is having a better level of education for your wellbeing?

How often have you been able to access education over the past 12 months?

Overall, I feel like I have control over my life.

Working together with people close to me, I can overcome most of my problems.

I am able to handle painful feelings, like sadness, anger and fear.

When I am angry or sad I am able to talk to someone about it.

I am able to face problems without gambling, using drugs or alcohol, or harming others.

I feel safe in my community.

I feel safe in the broader society outside my community.

I have the skills to be confident in both indigenous and non-indigenous communities.

Did you have a really bad illness or disability?

Were you in a really bad accident?

Did a family member or close friend pass away?

Did you discover/separate or get back together with a partner or get married?

Were there a lot of people living in the same house with you (overcrowding)?

Were you unable to get a job?

Did you lose your job, made redundant, sacked or retired?

Did you have any alcohol or drug related problems?

Did you have a gambling problem?

Did you witness violence?

Did you abuse anyone verbally or physically or commit violent crime?

Did you get in trouble with police/sent to/in jail for any other reasons (other than current custodial period offences)?

Did you have any family member's in prison or sent to prison?

Were you treated badly because of your indigenous heritage?

Appendix 2

Camberwell Assessment of Need – Forensic Version Items

Accommodation

Food

Looking after the environment

Self-care

Daytime activities

Physical health

Psychotic symptoms

Information about condition

Psychological distress

Safety to self

Safety to others

Alcohol

Drugs

Company

Intimate relationships

Sexual expression

Childcare

Basic education

Telephone

Transport

Money

Benefits

Treatment

Sexual offences

Arson
