Acquired Brain Injury

The purpose of this document is to collate published research, government reports and inquiries and academic commentary in relation to acquired brain injury, and the effects this may have on a person's behaviour; development; physical, mental and social well-being; and links to contact with the criminal justice system.

Introduction

> Some people with ABI are at greater risk of entering the criminal justice system due to the effects of trauma to the brain after sustaining a brain injury. They may experience life-long changes to their behaviour and personality, physical and sensory abilities, or thinking and learning. The risk can be further heightened due to a range of other factors including: an increased risk of onset of mental health issues, inadequate or nonexistent support and care co-ordination, loss of income and poverty at times resulting in homelessness, decrease in social networks and loss of education and employment opportunities.[1]

1 Acquired brain injury ('ABI') refers to any damage to the brain that occurs after birth.[2]

2 Traumatic brain injury ('TBI') is an ABI caused when an external force applied to the head injures the brain.[3] TBIs are commonly caused by physical assaults (such as blows to the head), motor vehicle accidents, sport-related injuries and falls.[4] A TBI can also be caused by 'acceleration/deceleration' injuries, such as those often sustained in motor vehicles accidents'.[5] Research has shown that 'multiple occurrences of TBI, even if singly mild, can be equally as damaging as one severe occurrence of TBI'.[6]

3 ABI may also result from other forms of damage to or degeneration of the brain, including stroke, hypoxia (oxygen deprivation), dementia (such as Alzheimer's disease, vascular dementia or Parkinson's disease), multiple sclerosis, poisoning and substance abuse.[7]

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[1] Brain Injury Association of Tasmania, *Acquired Brain Injury and the Criminal Justice System: Tasmanian Issues* (Report, August 2007) 6.

[2] Australian Institute of Health and Welfare, *The Health of Australia's Prisoners 2018* (Report 2019) 106; Brain Injury Australia, *Out of Sight, Out of Mind: People with an Acquired Brain Injury and the Criminal Justice System* (Policy Paper, July 2011) 4; NSW Law Reform Commission, *People with Cognitive and Mental Health Impairments in the Criminal Justice System: Diversion* (Report No 135, June 2012) 125 [5.85].

[3] Brain Injury Australia (n 2) 4; Brain Injury Association of NSW and Blake Dawson, Submission No 19 to NSW Law Reform Commission, *People with Cognitive and Mental Health Impairments in the Criminal Justice System* (6 August 2010) 4.

[4] Brain Injury Australia (n 2) 4; Brain Injury Association of NSW and Blake Dawson (n 3) 4; Australian Institute of Health and Welfare (n 2) 106.

[5] Nicola Fortune and Xingyan Wen, *The Definition, Incidence and Prevalence of Acquired Brain Injury in Australia* (Australian Institute of Health and Welfare, Report, 1999) 3.

[6] Leanne Dowse et al, *People with Mental Health Disorders and Cognitive Disabilities in the Criminal Justice System: Impact of Acquired Brain Injury* (Report, April 2011) 6.

[7] NSW Law Reform Commission, *People with Cognitive and Mental Health Impairments in the Criminal Justice System: Diversion* (Report No 135, June 2012) 125 [5.85]; Leanne Dowse et al (n 6) 5; Australian Institute of Health and Welfare, *Disability in Australia: Acquired Brain Injury* (Bulletin No 55, December 2007) 1.

4 ABIs can have an impact on most areas of cognitive functioning, particularly in speed of processing, working memory, learning and memory and executive functioning,[8] as well as affecting emotional, behavioural and/or independent functioning.[9] These impairments may be 'temporary or permanent and cause partial or total disability or psychosocial maladjustment'.[10]

5 While ABI is distinct from both intellectual disability and mental illness,[11] ABI commonly increases the risk of people developing anxiety and depression.[12]

Prevalence

6 Research often refers to ABI as the 'invisible' disability for several reasons:

- Dowse et al (2011) explained that the infinite variation of brain injury presentations 'means that there is no universal definitive mechanism by which an ABI can be identified for all individuals'.[13] The Brain Injury Association of Tasmania (2007) noted that 'as there are frequently no outward physical signs of disability, effects such as fatigue, lack of initiation, anger, mood swings and egocentricity, may be seen simply as personality defects'.[14]
- Brain Injury Australia (2011) identified that official prevalence estimates fail to include the significant numbers of Australians with an ABI outside the disability services system.[15]
- The Brain Injury Association of NSW and Blake Dawson (2010) stated that people with ABI may be unable to recognise or reluctant to disclose their disability.[16]

7 Recognising that prevalence figures underestimate the real incidence of ABI,[17] the Australian Bureau of Statistics 2003 Survey of Disability, Ageing and Carers reported that 432,700 people (around 1 in 45 Australians) had ABI with activity limitations.[18] However, as this figure excludes people in correctional institutions, rural and remote areas and people who are homeless, 'Brain Injury Australia estimates that over 500,000 Australians have an ABI'.[19]

Prevalence among Aboriginal and Torres Strait Islander people

8 In 2011, Brain Injury Australia reported that '[w]hile the apparent prevalence rates of ABI in Indigenous communities are up to three times that of the rest of the population, estimates are

[8] Brain Injury Association of NSW and Blake Dawson (n 3) 6 [5.3].

[9] Australian Institute of Health and Welfare (n 7) 1; Brain Injury Association of Tasmania (n 1) 4.

[10] Brain Injury Association of Tasmania (n 1) 4.

[11] ABI is often mistaken for or conflated with intellectual disability and/or mental illness: Brain Injury Association of NSW and Blake Dawson (n 3) 8 [5.4].

[12] Brain Injury Association of NSW and Blake Dawson (n 3) 7 [5.3], 8 [5.5]; Martin Jackson et al, *Acquired Brain Injury in the Victorian Prison System* (Victorian Department of Justice, Corrections Research Paper Series Paper No 04, April 2011) 17.

[13] Leanne Dowse et al (n 6) 7–8. See also Brain Injury Association of NSW and Blake Dawson (n 3) 4 [5.1]; Martin Jackson et al (n 12) 10.

[14] Brain Injury Association of Tasmania (n 1) 6. See also Brain Injury Australia (n 2) 5.

[15] Brain Injury Australia (n 2) 4.

[16] Brain Injury Association of NSW and Blake Dawson (n 3) 10 [6.3]. See also Brain Injury Australia (n 2) 4.

[17] Leanne Dowse et al (n 6) 6.

[18] Australian Institute of Health and Welfare (n 7) 1.

[19] Brain Injury Association of NSW and Blake Dawson (n 3) 4.

compromised by the lack of culturally appropriate (and widely available) cognitive assessment tools'.[20]

9 In the 2009 NSW Inmate Health Survey, Indigenous respondents reported 'higher rates of head injury with loss of consciousness; higher rates of multiple head injuries; and more frequent, and unresolved, sequelae involving "personality change" than non-Indigenous prisoners.'[21]

10 Dowse et al (2011) stated that '[t]he social disadvantages faced by Indigenous communities make them more vulnerable to exposure to causes of ABI.[22]

Prevalence among prisoner populations

11 Brain Injury Australia notes that the 'strikingly high' proportions of prisoners with an ABI 'are likely still conservative measures of the disability'.[23] Numerous studies report the overrepresentation of ABI, and head injuries in particular, among prison populations:[24]

Source	*Prevalence of ABI among People in Prison*
AIHW, *The Health of Australia's Prisoners Report 2018* (2019)[25]	40–90% individuals had an ABI
NSW Inmate Health Survey (2011)[26]	39% of females and 45% of males experienced a head injury resulting in unconsciousness
Victorian Prisoner Health Study (2003)[27]	41% of females and 66% of males experienced a head injury resulting in unconsciousness
Large-scale study investigating People with Mental Health Disorders and Cognitive Disabilities in the Criminal Justice System in NSW (2011)[28]	511 individuals (18.7% of 2,731 people) had an ABI
Victorian Department of Justice commissioned study (2011)[29]	33% of females and 42% of males had an ABI
Census of 9,000 prisoners throughout Australia (2009)[30]	43% reported having received a blow to the head resulting in unconsciousness

[20] Brain Injury Australia (n 2) 10; See also Leanne Dowse et al, *People with Mental Health Disorders and Cognitive Disabilities in the Criminal Justice System: Impact of Acquired Brain Injury* (Report, April 2011) 12.

[21] Ibid 10.

[22] Leanne Dowse et al (n 6) 12.

[23] Brain Injury Australia (n 2) 8.

[24] Brain Injury Australia, 'Acquired Brain Injury and the Criminal Justice System' (Fact Sheet 5); Brain Injury Association of NSW and Blake Dawson (n 3) 10 [6.2]; Brain Injury Australia (n 2) 2.

[25] AIHW (2019) 106.

[26] Australian Institute of Health and Welfare (n 7) 3.

[27] Brain Injury Association of Tasmania (n 1) 10.

[28] Leanne Dowse et al (n 6) 15.

[29] Martin Jackson et al (n 12) 6.

[30] Brain Injury Australia (n 2) 7.

Source	*Prevalence of ABI among People in Prison*
Centre for Health Research in Criminal Justice's Survey of 996 inmates from 30 NSW correctional centres (2009)[31]	35% of females and 52% of males experienced a head injury resulting in unconsciousness
Study of 200 men in the NSW criminal justice system (2006)[32]	82% reported at least one TBI, including 65% who experienced loss of consciousness

Prevalence among juvenile offenders

12 A 2015 report by the Australian Institute of Health and Welfare identified that '[j]uvenile offenders have been found to be more than three times as likely as other youths to have experienced a traumatic brain injury'.[33] Justice Health's 2009 NSW Young People in Custody Health Survey found that nearly one-third (32%) of participants reported having had a head injury with loss of consciousness.[34]

Impacts

13 ABI can result in 'deterioration in cognitive, physical, emotional or independent functioning'.[35] The Brain Injury Association of NSW and Blake Dawson identified that the impacts of ABI are unique and affect individuals differently, depending on 'the type of ABI, the severity of the injury, the location of the injury and how well the person is integrated back into the community'.[36]

Ongoing effect of ABI symptoms

14 While the rate and extent of rehabilitation varies for individuals with ABI, research shows that many people continue to experience unresolved effects from their ABI. In 2012, the NSW Law Reform Commission stated:

> ABI is permanent, and while medication and rehabilitation can be useful, some effects cannot be reversed. One study of 198 clients with severe traumatic brain injury found that after three years, only 10% continued to have significant impairments in the physical domain, a large proportion continued to have clinically significant impairments in the cognitive and behavioural domains: 61% had memory impairment, 52% had problem solving impairment and 20% had impairment in social interaction.[37]

[31] Brain Injury Australia (n 2) 7.

[32] Peter W Schofield et al, 'Traumatic Brain Injury among Australian Prisoners: Rates, Recurrence and Sequelae' (2006) 20 *Brain Injury* 499, 499–500.

[33] Australian Institute of Health and Welfare, *The Health of Australia's Prisoners 2015* (Report, 2015) 112.

[34] Devon Indig et al, *2009 NSW Young People in Custody Health Survey: Full Report* (Justice Health and Juvenile Justice NSW, 2011) 16. The survey comprised a total of 361 juvenile justice detainees, which represented 80% of all young people in custody: 13.

[35] Martin Jackson et al (n 12) 7.

[36] Brain Injury Association of NSW and Blake Dawson (n 3) 4 [5.3]. See also Australian Institute of Health and Welfare (n 7) 3; Leanne Dowse et al (n 6) 7.

[37] NSW Law Reform Commission, *People with Cognitive and Mental Health Impairments in the Criminal Justice System: Diversion* (Report No 135, June 2012) 125–6 [5.86].

15 Studies have found that among people in prison who identified as having ABI, 23–52% reported ongoing symptoms, including headaches, personality change, anxiety/depression, memory loss, uncontrollable anger and poor concentration.[38]

Physical effects

16 The Brain Injury Association of NSW and Blake Dawson (2010) listed a number of physical effects of ABI, which may include extreme mental and/or physical fatigue (exacerbating poor memory, concentration, planning etc), disorders of movement, impaired motor control, sleep disorders, and speech that is unclear due to poor condition of muscles in the lips, tongue and jaw and/or poor breathing pattern.[39]

17 The Australian Institute of Health and Welfare (2007) identified that the rates of physical disability are higher for older people than among younger people, with 96% of people with ABI aged 65 years or over reporting a physical disability.[40]

18 Even where individuals have made a good physical recovery, many still face clinically significant impairments in cognitive and behavioural domains.[41]

Behavioural impacts

19 In a 2011 policy paper, Brain Injury Australia reported that 'challenging behaviour'[42] is common following ABI and may include: 'disinhibition, irritability, aggression, sexual acting out, reduced anger control, immature behaviour (relative to age expectations), rigidity, social awkwardness, impaired social perception, egocentrism, depression and social withdrawal'.[43] Other behavioural and emotional effects may include:

- impulsivity;
- self-centredness;
- reduced tolerance for stress;
- lack of initiative — apathy;
- dependence (failure to assume responsibility for one's actions);
- denial of disability;
- inflexibility (causing difficulty recognising and changing thoughts and behaviour);
- flattened or heightened emotional responses and reactions;
- sadness and/or grief;
- loss of self-esteem;
- change in personality including difficulty in emotional control; and
- uses of substances such as alcohol and other drugs.[44]

[38] Australian Institute of Health and Welfare (n 7) 3; Brain Injury Association of Tasmania (n 1) 10; Schofield et al (2006) 500–1, 504.

[39] Brain Injury Association of NSW and Blake Dawson (n 3) 7 [5.3].

[40] Australian Institute of Health and Welfare (n 7) 15.

[41] Brain Injury Association of NSW and Blake Dawson (n 3) 5 [5.3].

[42] 'Challenging behaviour' is defined as 'any behaviour, or lack of behaviour of such intensity, frequency and/or duration that has the potential to cause distress or harm to clients/carers/staff or one which creates feelings of discomfort, powerlessness, frustration, fear or anxiety. It is also behaviour, which delays or limits access to ordinary community facilities and is outside socially acceptable norms: Brain Injury Australia (n 2) 13.

[43] Brain Injury Australia (n 2) 13. See also Brain Injury Association of NSW and Blake Dawson (n 3) 5, 7 [5.3].

[44] Brain Injury Association of NSW and Blake Dawson (n 3) 7.

20 Brain Injury Australia identified that

> difficulties with regulating behaviour — particularly associated with damage to the frontal lobes of the brain — have been found to be more common in people with an ABI than in carefully matched control groups drawn from, for instance, similar socioeconomic backgrounds … for roughly 2 in every 3 people who behave in such ways — especially where insight into their challenging behaviour and its effects is also limited by damage to their brain and they have limited, or no, control (combined with lack of memory) over them — this is reported as being the most disabling part of their brain injury … unlike most neurobehavioural consequences of TBI that improve over time, irritability, aggression and other behaviour problems may worsen, both in children and adults.[45]

21 In 2010, New South Wales' Brain Injury Rehabilitation Directorate, from a research sample of 659 clients, found that more than half (53%) 'met criteria for challenging behaviour', with the most common type of behaviours being aggression (both verbal and physical) (31%) and inappropriate social behaviour (30%).[46] A notable consequence of challenging behaviour was 'increased contact with police and the criminal justice system'.[47] The research also identified that rates of challenging behaviour increased as severity of cognitive impairment and accommodation problems increased, and with disability;[48] and clients with co-morbid mental health and drug and alcohol had higher rates of challenging behaviour.[49]

Psychological effects and psychiatric disorders

22 Research has found high rates of comorbidity between ABI and mental illness:[50]

> While ABI is different from mental illness, there is evidence of a strong association between ABI and mental illness. ABI causes mental illness. After an ABI an individual has a 4 in 5 likelihood of developing a diagnosable mental illness. The disadvantage experienced by a person with an ABI is compounded by the onset or pre-existence of a mental illness or mental disorder.[51]

23 Drawing upon a large-scale study investigating People with Mental Health Disorders and Cognitive Disabilities in the Criminal Justice System in NSW, Dowse et al (2011) identified that 'mental health disorders and psychiatric disorders occur at high rates for those who have an ABI in this study'.[52] Specifically:

- over one-third (37.4%) of individuals with an ABI, have also been diagnosed with a psychiatric condition, including anxiety, affective or psychotic disorders; and
- a total of 372 (72.8%) individuals who indicated having an ABI were also diagnosed with a mental health disorder, which includes psychiatric, substance use and personality disorders.[53]

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[45] Brain Injury Australia (n 2) 13.

[46] Mark Sabaz, *NSW Brain Injury Rehabilitation Program: Challenging Behaviours Project: Adults Using the Analysis of Prevalence, Course, Co-Morbidity and Burden to Inform the Model of Care* (NSW Agency for Clinical Evaluation, Report, 2010) 11–12.

[47] Ibid 3.

[48] Mark Sabaz (n 46) 14, 16.

[49] Ibid 18–19.

[50] See Brain Injury Association of NSW and Blake Dawson (n 3) 8 [5.5]; Martin Jackson et al (n 12) 17; Leanne Dowse et al (n 6) 23–4.

[51] Brain Injury Association of NSW and Blake Dawson (n 3) 8 [5.5].

[52] Leanne Dowse et al (n 6) 24.

[53] Ibid 23.

24 Similarly, a 2011 Victorian Department of Justice study of 110 adult male prisoners and 86 adult female prisoners found that of those who screened positively for ABI:

- 63% of male prisoners and 79% of female prisoners reported at least one psychiatric diagnosis (current or past);
- 27% of male prisoners and 23% of female prisoners reported three or more psychiatric diagnoses; and
- depression and anxiety were the most frequently reported psychiatric illnesses.[54]

Cognitive impacts

25 The Victorian Department of Justice reported that 'impairments to cognitive abilities may be either temporary or permanent and may cause partial or total disability or psychosocial maladjustment'.[55]

26 The Brain Injury Association of NSW and Blake Dawson (2010) outlined the possible cognitive effects of ABI, including:

- difficulty processing information (decreased speed, accuracy and consistency);
- shortened attention span;
- inability to understand abstract concepts;
- impaired decision-making ability;
- inability to shift mental tasks or follow multi-step directions;
- poor concentration;
- memory loss or impairment;
- language deficit (difficulty expressing thoughts and understanding others);
- problems learning new information;
- problem-solving, planning and organisational difficulties;
- fixed patterns of thinking; and
- difficulty interpreting social cues.[56]

Social and relationship impacts

27 Brain Injury Australia has stated:

> Families of individuals with acquired brain injury experience 'an increasing intolerance to their family member's limitations as time progresses'. This is particularly so where the person has experienced behavioural (eg violence, verbal aggression, inappropriate social behaviours, dependency etc), cognitive and personality changes.[57]

28 A 2011 Brain Injury Australia policy paper also noted the wider societal impact, explaining that 'people with an ABI can sometimes behave in ways that stretch the limits of social

[54] Martin Jackson et al (n 12) 17.

[55] Ibid 7.

[56] Brain Injury Association of NSW and Blake Dawson (n 3) 6 [5.3].

[57] Brain Injury Australia, 'The Connection between Acquired Brain Injury and Homelessness' (Fact Sheet).

acceptability, placing considerable strains not only on family and work relationships but also with the broader community'.[58]

Risk of homelessness

29 An ABI 'can exacerbate and magnify the risk factors associated with homelessness including family breakdown, loss of social support networks, lack of affordable housing, family violence, unemployment, illness, drug and alcohol use, violence and/or criminal behaviour'.[59] They also noted that the risk of homelessness is particularly pertinent for young people, finding that many families of young people with TBI 'will, within five years of the post-school period, reach "breaking" point particularly where "repeated incidents involving police intervention have occurred"'.[60]

30 A Victorian Department of Justice study in 2011 found that prisoners with ABI reported 'high levels of accommodation problems … prior to imprisonment'.[61] Dowse et al (2011) identified that 34.78% of the 604 individuals with an ABI in the People with Mental Health Disorders and Cognitive Disabilities in the Criminal Justice System in NSW study had a recorded instance of being homeless.[62] The report noted that this figure is an under-representation of homelessness, as it comprises only individuals who received a service whilst homeless.[63]

Education and employment outcomes

31 The Australian Institute of Health and Welfare (2007) stated that ABI 'can result in significant restrictions on an individual's ability to participate fully in education, employment and other aspects of life'.[64] The Victorian Department of Justice's 2011 Report found that prisoners with ABI reported a 'lack of employment prior to imprisonment',[65] and male prisoners also had 'significant lower educational achievement'.[66]

32 Brain Injury Australia reported that research on juvenile justice detainees found that many young people with a violent family background, where typically the father or mother's partner hit them around the head, 'seem to attract attention when they enter school due to their problematic, disruptive behaviours'.[67] The 2011 paper explained that these young people, usually boys, are often diagnosed with attention deficit hyperactivity disorder ('ADHD') or oppositional defiant disorder ('ODD') and are 'moved to a 'behavioural school' or they drop out of school altogether'.[68] A Brain Injury Australia fact sheet identifies that 'ADHD is reported to occur in 20% to 50% of children following brain injury'.[69]

[58] Brain Injury Australia (n 2) 13.

[59] Brain Injury Australia, 'The Connection between Acquired Brain Injury and Homelessness' (Fact Sheet).

[60] Ibid.

[61] Martin Jackson et al (n 12) 26.

[62] Leanne Dowse et al (n 6) 41.

[63] Ibid.

[64] Australian Institute of Health and Welfare (n 38) 3.

[65] Martin Jackson et al (n 12) 26.

[66] Ibid 19.

[67] Brain Injury Australia (n 2) 12.

[68] Ibid.

[69] Ibid.

Substance abuse – alcohol and drug problems

33 Brain Injury Australia reports that of those people who experience TBIs:

- up to 68% have a history of substance misuse;
- 50% of people return to pre-injury consumption levels;
- 14% develop an alcohol and drug problem after a head injury; and
- 60–80% of clients in alcohol treatment will show some form of cognitive impairment.[70]

34 NSW studies on prisoner populations with ABI similarly reported higher rates of substance abuse, including the People with Mental Health Disorders and Cognitive Disabilities in the Criminal Justice System in NSW study, which found that among the 511 individuals in the cohort with ABI, 58% had a history of substance abuse.[71]

Family violence

35 Brain Injury Australia notes that ABI is common in children with a history of family violence and child abuse.[72] They also cited research, which found significant cognitive impairments among juvenile justice detainees, who often reported 'violent family backgrounds, where typically the father or mother's partner has been physically abusive towards them and other family members'.[73]

Links to Contact with the Criminal Justice System

36 The NSW Law Reform Commission (2012) found that

> people with ABI are more likely to come into contact with the criminal justice system, where they have problems arising from impulsive behaviour, anger and aggression, increased use of alcohol and other drugs, poor self-monitoring, poor concentration, lack of inhibition, inflexibility, impulsivity, an inability to read social cues and memory loss.[74]

37 In addition, the People with Mental Health Disorders and Cognitive Disabilities in the Criminal Justice System in NSW study (2011) found that individuals in the ABI group had, on average, 'an additional 16 contacts with police as persons of interest than the group with no ABI', and were 'more frequently both victims of crime and persons of interest'.[75]

38 Dowse et al (2011) argue that the link between ABI and criminal behaviour is not causal, but rather, 'the demographic variables which are associated with criminal behaviour are also those which are associated with high risk of TBI', such as 'low socio-economic backgrounds, low levels of education and employment, high rates of drug or alcohol use, high rates of homelessness, histories of domestic violence, and poor mental and physical health'.[76]

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[70] Brain Injury Australia, 'The Connection between Acquired Brain Injury and Homelessness' (Fact Sheet).

[71] Leanne Dowse et al (n 6) 24. See also Brain Injury Australia (n 2) 8.

[72] Brain Injury Australia, 'The Connection between Acquired Brain Injury and Homelessness' (Fact Sheet).

[73] Brain Injury Australia (n 2) 12.

[74] NSW Law Reform Commission, *People with Cognitive and Mental Health Impairments in the Criminal Justice System: Diversion* (Report No 135, June 2012) 126 [5.88].

[75] Leanne Dowse et al (n 6) 27.

[76] Ibid 11.

Vulnerability in custodial settings

39 The Brain Injury Association of Tasmania found that 'people with ABI are often vulnerable in dealings with police and the court system', and then, if incarcerated, 'are at risk of harm due to their susceptibility in the correctional system to abuse, harassment, exploitation and manipulation'.[77]

40 In relation to young offenders, the Brain Injury Association of Tasmania observed:

> It is possible that juveniles with ABI entering a detention facility may have less opportunity to receive appropriate intervention and case management due to the lack of identification of an ABI, and coupled with this is an environment that may further serve to disadvantage them, particularly as they may be eager to please those perceived to be more powerful than them (such as other detainees). The very nature of a prison environment automatically places the offender with a cognitive disability at a disadvantage.[78]

Treatment and Healing*

41 Offenders with ABI often experience cognitive deficits that can lead to 'difficulty functioning in a prison environment, and may require specific assistance from correctional staff as well as altered approaches to the delivery of offending behaviour programs'.[79]

42 The Brain Injury Association of NSW and Blake Dawson stated:

> When people coming into custody after sentence are identified as having an ABI, we recommend a comprehensive risk assessment be undertaken, appropriate programs and support be developed for the person while they are in prison and a plan be developed to help reintegrate the person into the community on their release, with referrals back to community-based disability and/or supported accommodation services where necessary… If an ABI is identified, the person should be assessed for the support they require to comply with the conditions of their sentence on diversion. For some people with an ABI, imposing conditions without appropriate support to enable them to meet those conditions is setting them up to fail.[80]

43 In addition, while there is no cure for an ABI, it is important to tailor support for an individual's particular needs.[81] Dowse et al (2011) observed that 'management of the sequalae of ABI is the primarily rehabilitative response, largely through the use of educational and therapeutic programs to help individuals cope or manage their specific issues'.[82] For example, 'therapeutic tools have been shown to assist individuals to manage impulsive behaviour and anger responses in social situations'.[83]

44 For some people with ABI, mental health facilities are not appropriate and can compromise their treatment.[84] On the other hand, Brain Injury Australia states that mental health services

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[77] Brain Injury Association of Tasmania (n 1) 13–14.

[78] Ibid 22.

[*] *Note*: The research cited in relation to treatment and healing does not attempt to prescribe or recommend what is required for any individual. This will of course be determined by factors such as the individual's personal experience or condition, the advice of any relevant experts, health providers or other support persons and the availability of treatment and opportunities to recover and heal.

[79] Martin Jackson et al (n 12) 6.

[80] Brain Injury Association of NSW and Blake Dawson (n 3) 15 [7.1].

[81] Ibid 8 [5.6].

[82] Leanne Dowse et al (n 6) 8.

[83] Ibid.

[84] Brain Injury Association of NSW and Blake Dawson (n 3) 8–9 [5.6].

are particularly necessary for people with ABI 'who are experiencing severe mood and behavioural changes, psychiatric episodes and suicidal thoughts and actions'.[85]

45 Brain Injury Australia notes that many short-term rehabilitation programs 'do not take into account the slower rate of change for many people with ABI',[86] identifying that a 'combination of cognitive behavioural therapy and well-established cognitive rehabilitation strategies for the brain injury would be of more benefit to the client with a dual problem'.[87]

[85] Brain Injury Australia, 'Acquired Brain Injury and Mental Health Services' (Fact Sheet 8).

[86] Ibid 1.

[87] Ibid 2.