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Fetal Alcohol Spectrum Disorder, Mental Impairment, and the State of Play in Australia

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Abstract

Fetal alcohol spectrum disorder (FASD) represents one possible outcome from the consumption of alcohol during pregnancy. Characterised by cognitive and behavioural impairment, one secondary outcome from FASD is encounters with the criminal justice system (CJS). Individuals with FASD are highlighted to be over-represented within the CJS, with one Australian study identifying 36% within a detention centre. This review article presents a brief overview of FASD, the vulnerabilities of individuals with FASD, to and within CJS encounters, mental impairment, and the 'state of play in Australia.' Finally, an overview of some of the recent progress made in Australia with respect to the recognition of FASD within the CJS is presented with a few examples of case law where FASD was considered as a mitigating factor; other landmarks of progress are highlighted including the National FASD strategic plan, the FASD Youth Justice Model of Care Handbook and Ministerial Comment that puts into perspective FASD as a vulnerability. This review article argues that it needs to be understood that FASD may affect a person's ability to be criminally responsible and that an understanding of the condition may present a context for behaviours that are relevant to criminal justice professionals. This review article concludes that while some progress has been made in the recognition of FASD, more needs to be done to understand its effects and to highlight the impact of FASD on criminal responsibility.

Keywords: Criminal Justice System; Diminished responsibility; Lack of capacity; FASD; Forensic

Introduction

What is FASD?

Fetal Alcohol Spectrum Disorder (FASD) describes a range of closely related conditions resulting from prenatal alcohol exposure (PAE)l, characterised by a range of behavioural and cognitive patterns and in some cases, facial deformities [1]. FASD impairments are linked to the teratogenic effects of alcohol and its ability to easily cross the placenta. The dosage and timing of PAE is evidenced to impact the extent of damage resulting from the exposure [2,3]. Currently research concludes that there are no safe levels of alcohol consumption in pregnancy, as there are mixed findings regarding the outcomes from low, moderate to high levels of PAE [4,5]. Therefore, for both mother and baby to remain safe, FASD researchers recommend abstinence from alcohol during pregnancy.

Four conditions are identified in the FASD spectrum: Fetal Alcohol Syndrome (FAS), Partial Fetal Alcohol Syndrome (pFAS), Alcohol-Related Neurodevelopmental Disorder (ARND), and Alcohol-Related Birth Defects – ARBD [1]. FAS is highlighted to be the most easily identified condition, although it does not represent the full spectrum of the teratogenic effects of alcohol. A pattern of facial dysmorphology (shortened palpebral fissures, thin upper lips, and smoothened philtrum), brain impairment, and abnormal growth or development is evidenced to be characteristic of FAS [1,6,7]. pFAS was identified after it was discovered that a subset of patients with PAE presented with abnormal growth and brain dysfunction but did not present with the facial features necessary for a diagnosis of FAS [8]. ARND is identified with central nervous system impairments devoid of the influence of genetic disposition, along with behavioural problems and a documented history of exposure to alcohol prenatally. ARBD, on the other hand, is described as being associated with systemic or organ malformations along with a confirmed history of prenatal alcohol exposure [8] (Figure 1).

Figure 1: FAS as seen in children of different origins.

Prevalence of FASD in the general and justice populations. Estimating the prevalence of FASD is challenging due to stigma, variations in diagnostic criteria, underreporting, missed diagnosis and misdiagnosis [9]. The prevalence of FASD varies across different settings due to socioeconomic and cultural differences. Lange, et al. [10] using meta-analysis, estimated the global prevalence rate of FASD among children and youth to be 7 per 1000. Prevalence for different regions were also estimated, with the European region and the Americas having the highest prevalence – 19.8 and 8.8 per 1000 population, respectively. Country-wise estimates were also provided by Lange, et al. [10]; countries with the highest prevalence rates included: South Africa-111.1 per 1000 population, Croatia - 53.3 per 1000 population, and Ireland at 47.5 per 1000 population. The meta-analysis by Lange et al. [10] provides useful insight into the global prevalence of FASD, however, all the 24 included studies were from only eight countries, which had different diagnostic approaches to FASD; many of the samples used in the studies were not representative and there could have been several cases of missed diagnosis.

In their recent study, Romeo, et al. [11] estimated FASD prevalence in the general population to be 1.7% in the 2012/2013 year. In the 2018/2019 year, they found the FASD prevalence was 1.3%. Specifically, the prevalence of FASD in the whole population in 2018/2019 year was found to range between 1.1% and 3.9%. For Māori, it was found to range from 1.7% to 6.3% which was significantly higher than that found in the Pasifika and Asian populations in 2018/2019 (Pasifika, 0.5% to 1.7% and Asian, 0.2% to 0.6%). Amongst European/others it was 1.3% to 4.6% in 2018/2019 [11].

Estimates in Australia are scarce, but it is believed that FASDs affects 2-5% of the population [12]. Indigenous communities in Australia have reported higher estimates, emphasizing the need for culturally sensitive prevention and intervention strategies [13]. While statistics of FASD in Australia is unknown, the 2013 National Drug Strategy Household Survey found that one-quarter (26%) of women continued to drink after knowledge of the pregnancy [14]. With Australia's total birth rate in 2022 at 300,684 registered babies [15], this would equate to 78,178 women consuming alcohol during pregnancy. This is an alarming statistical representation of the drinking culture for Australia as a nation, its pregnant women, and future generations. Australian First Nation Noongar woman Robyn Williams, in her research cited Department of Health findings that 49% of children in protection are affected by FASD, specifically '... two to three generations of some families' suffered from the alcohol-based disorder. Williams further noted that FASD was not an issue exclusive to Indigenous people but rather, suggested it is a societal problem, requiring a shift in conscious thought from individual or secular to wider community and legal solutions (Ibid).

Regional estimates for FASD within the CJS have also been published. In Canada, four different studies found that an estimated 9.8% to approximately 23.5% of those in the CJS presented with an FASD diagnosis [16-19]. Using active case ascertainment, an Australian study revealed over 50% of inmates have a history of PAE, while 36% had FASD [20]. A systematic review by Popova et

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al. [21], which was an update of the Popova, et al. [22] systematic review, found that the FASD pooled prevalence for adults in the Canadian correctional system was 14.7%. Popova's found that for all countries involved in their study, the median occurrence of FASD was 11.3%; McLachlan, et al. [23] recently found 17.5% in a sample of 80 adults involved with the Canadian justice system using an active case ascertainment approach.

Vulnerabilities in individuals with FASD to, and within justice system encounters individuals with FASD may encounter the CJS at any point within their lifespan; that is, across all age groups from childhood into adulthood [24-27]. Streissguth, et al. [28] measured adverse life outcomes in individuals prenatally exposed to alcohol and found the risk of confinement to increase as individuals with FASD transitioned from childhood to adulthood. Streissguth's [28] study revealed that the fraction (of individuals prenatally exposed to alcohol) charged, arrested, and/or convicted cumulatively increased with age from 13% for children to 67% for adolescents and 87% for adults.

Individuals with Fetal Alcohol Spectrum Disorders (FASD) frequently encounter the justice system due to cognitive and behavioural impairments resulting from prenatal alcohol exposure [28]. Cognitive limitations can lead to confusion during legal proceedings, hindering communication with counsel and comprehension of consequences [29]. Behavioural challenges like impulsivity may result in encounters with law enforcement [30]. Additionally, individuals with FASD may struggle to interpret social cues, evidence poor executive function (e.g., problem solving and planning, concept formation and set shifting, fluency, inhibitory control, working memory); verbal and non-verbal learning and memory; language; Problem-solving, impaired inhibitory control, adaptive functioning thereby increasing susceptibility to manipulation [31,32]. A recent experimental study showed that compared to a neurotypical population, individuals with FASD were more susceptible to suggestions during forensic interviews (interrogative suggestibility), fabricated imaginary stories to replace forgotten facts (confabulation) and were more prone to manipulation to commit crimes, known as compliance [33-36].

Young people with FASD, depending on impairment levels, fail to hold an adequate understanding of basic legal processes, further disabling their ability to grasp legal interview and detention procedures, and indeed an inability to fulfil fault elements if charged with certain offences. This is especially the case for Indigenous youth from culturally specific areas or that have issues with reading, writing, and the English language. Within the justice system, individuals with FASD are at increased risk of victimization [37]. Limited awareness of FASD among legal professionals, inadequate accommodations, and misdiagnoses compound these issues [38,39]. In correctional facilities, challenges arise regarding medication management and specialized mental health services [40]. Fast et al. [41] identified the acronym ALARM as a summary of the fundamental issues in people with brain damage. As proposed by Fast, et al. [41], the acronym ALARM represents impairments in - Adaptive Behaviour; - Language, Attention; - Reasoning and; - Memory. These ALARM signs are suggested to be influential in impacting the vulnerabilities of individuals with FASD [42].

Mental Impairment

Individuals with FASD may also present with mental health issues [43]. Mental impairment because of FASD can be relevant to several issues in a criminal trial. Firstly, severe conditions may prevent the accused person being well enough to go through the trial process. Secondly, if fit enough and the condition can be accommodated by reasonable adjustment of the trial process, some conditions may rebut fault elements of offences such as recklessness or the knowledge necessary to be complicit in the crime of another. Thirdly, a FASD condition may provide evidence for mental impairment defences where an accused person with FASD may not be held fully responsible for their criminal acts. For those unfit to stand trial, the court may return a special verdict that a defendant is not guilty, based on finding of fact, due to mental impairment [44]. The onus is often on the courts to balance administration of justice and the circumstance surrounding the defendant, while the defendant must establish that the act was a result of lack of capacity on the balance of probability, that the mental state is admissible to support a denial of voluntariness or fault as per section 7.3(3).1) 213-218 of the Criminal Code Act [44]. The defendant must also prove that their abnormality of mind (mental illness) was a real cause of the offending conduct. At a state level, the Mental Health Act 2016 (QLD) section 10(1) [45] outlines the meaning of mental illness '...is a condition characterised by a clinically significant disturbance of thought, mood, perception or memory...'. Section 21 of the Act outlines that a case for mental illness defence may be heard in a Mental Health Court, whereby a finding of unsound mind may result in a forensic order for treatment. Other Australian states and Territories also observe mental health legislations and mandates with slight adaptions to suit their applicable regions.

The Australian Commonwealth courts look to the Criminal Code Mental Impairment Act 1995 (Cth) [44] to provide guidance as to the defendant's capacity or lack thereof, to understand their actions. Lack of Capacity is found in Sections 7 and 8 of the Act that defines mental impairment as to include brain damage and severe personality disorders. Whether a FASD affects fault elements such as knowledge or recklessness will depend on the nature of the condition but, to establish a mental impairment defence, the defendant must prove, among other things, that there is a nexus between criminal responsibility and mental health impairment that may lead courts to consider FASD as a defence to reduce or dismiss charges. This is also the case in state legislation. It follows that defendant's with FASD may commit crimes and subsequently be found by Australian courts to be impaired. In this way FASD can be considered a causal reason for the crime, reducing, or removing criminal responsibility. In other cases, certain features of FASD only may provide the context of vulnerability to engaging

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in offending behaviour or to being exploited or victimised which may go to sentencing mitigation, if the condition is properly understood. This might include other vulnerabilities such as generational trauma and domestic violence. A recent study in the Northern Territory [46] concluded that trauma and alcohol and other drug (AOD) use were widespread among convicted domestic, family, and sexual violence (DFSV) offenders, with alcohol involved in the majority of incidents and suggested further research to understand the bio-psycho-social factors involved in the relationship between trauma, alcohol, and family violence. In that study the concern related to crime prevention, but similar factors may well be relevant to criminal responsibility altogether.

State of Play in Australia

Whilst FASD is an umbrella term for multiple medical conditions, it is currently unrecognised as a stand-alone disability, nor is it given broad consideration statutorily in youth justice court systems in Australia, either at prehearing or at time of sentencing [47]. However, conversely in the same instance, the World Health Organisation has declared FASD a recognised disability. The Legislative Assembly of the Northern Territory recognised that FASD was '…doing untold harm to children in the Northern Territory … harm that will stay with them throughout their lives…' denying these children the life and opportunity that they deserved' (Legislative Assembly of the Northern Territory, 2015). In a submission to the Office of the Children's Commissioner of the Northern Territory, it was acknowledged that Indigenous individuals with FASD are more likely to be involved in the mental health and justice systems than non-Indigenous youth [48]. To date, there are no requirements under Australian law for accused persons, particularly young people, to be considered for assessment for pre-trial FAS or FASD, nor is FASD classified a disability under the Australian Disability Act. Unless it is picked up by the police, prosecutors, or defence and suitable expert evidence gathered, the likelihood is that accused persons with FASD are not being fairly tried. This gives rise to questions as to whether the CJS is failing persons with disabilities. For FASD to be considered a disability, a person must commonly present with intelligence quotients (IQ) below 70. This IQ marker however does not account for the secondary effects or disabilities experienced as a direct result of pre – natal alcohol exposure [20]. Therefore, if a child scores higher than the accepted 70 they are not considered to have a disability and a FASD expert assessment may not be commissioned. Training is essential for those working within the CJS, particularly youth justice, police, and child welfare/protection industry along with improved policies and procedures. If FASD is a recognised as a stand alone, neurocognitive disability, this may assist in the identification of challenges and workable solutions to lower the criminalisation of children being born with this burden.

Several authors have advocated for increased recognition and assessment of FASD in Australia, especially within the justice system [49]. There exists the need for increased awareness and education among legal professionals, including judges, lawyers, and law enforcement personnel. Many individuals within the legal system may not be familiar with FASD or its potential impact on legal proceedings. This lack of awareness can lead to misdiagnoses, inappropriate sentencing, or a failure to provide the necessary accommodations and support [2]. Also, there has been active recommendation for the development and implementation of alternative sentencing options [49].

Positive Progress

While more action is needed, there is evidence of progress to consider FASD as relevant to fitness to stand trial [50] or a contributing factor to alleged criminal conduct. A court may also consider FASD as being a separate impacting factor in mitigation of a sentence. This section presents positive progresses on the recognition of FASD within Australia.

Australian case law

While more recognition of FASD in the Australian legal system is needed, this review provides instances where courts considered FASD as a mitigating factor for sentencing purposes. These cases, along with general comments from FASD decision makers are outlined below:

i. **R v BXY [2023] QSC 42, 10 March 2023 Bowskill CJ [51]**

On 8 December 2022, BXY aged 14 years, crashed a stolen car, containing 6 passengers aged 12-15 years. BXY holds an extensive record of offending, including stealing from a home, unlawful use of a motor car (stealing) driving without a licence, dangerous operation of a vehicle (while under the influence of amphetamine, methylamphetamine (known as "ice") and tetrahydrocannabinol (THC), causing grievous bodily harm and manslaughter. As a result of the crash, whereby BXY drove at speeds of 120-130KM per hour, 12-year-old passenger (KD) was left unable to move her arms and legs. Two other female passengers were seriously injured, while a male passenger (BS aged 14 years) died at the scene.

In this matter, Bowskill CJ, considered s150 and of the Youth Justice Act 1992. "special considerations" inclusive of General Principals, s150(1) and BXY's age s152(a). Bowskill CJ weighed public safety against any aggravating or mitigating factors, support networks, rehabilitation options, mental capacity, seriousness, and history of offending. The court also accepted Dr Meg Perkins, psychologist, expertise in relation to BXY's FASD Pre-Sentence report. The Crown Prosecutor noted BXY's first criminal conviction at 11 years (2019) describing BXY's challenges as starting '… before he was born and involves multiple factors completely beyond his control." While Dr Perkins report noted, BXY's mother drank heavily in her first four months of pregnancy and as a result, BXY presented with multiple neuro cognitive deficits. Dr Perkins confirmed BXY "… meets the criteria for diagnosis of FASD, which is recognised as a congenital disorder by the NDIS". Bowskill CJ,

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agreed that FASD changed BXY's brain function and BXY suffered from a lack of capacity to understand actions and consequences, due to exposure of long-term familial violence, substance abuse (including alcohol) and neglect. Weighing the balance of offending against mitigating and aggravating factors and the law, Bowskill CJ determined …'the defendant is less morally blameworthy for the offending, in light of his severe brain dysfunction as a result of FASD and the impact of his dysfunctional upbringing, than he would otherwise be…' Nonetheless, it was determined that BXY receive a four-year 11-month sentence, with a requirement BXY serve 70% of the sentence prior to release.

ii. **LCM v The State of Western Australia (22 September 2016)**

On 5 February 2014, aged 15 years and 10 months, LCM, violently assaulted his newborn son L, causing L to sustain a fractured skull and severe brain injuries due to LCM hitting L's head on a hard surface and administering at least two blows, one to the right and one to the left side of L's head. Because of the severe blunt force head trauma inflicted upon L by LCM, L died on 24 February 2014. Following L's death, LCM, having been originally charged with murder, accepted an offer to plead guilty to manslaughter, LCM was remanded to appear for sentencing in a Western Australian Children's Court. The primary Judges in LCM's original matter, called for presentencing reports and an examination of LCM's relevant history before imposing a 10-year sentence with supervised release after 5 years. LCM appealed on the grounds that the sentence was manifestly excessive. LCM further argued that FASD was a material mitigating factor unknown to the court at first instance.

Mazza JA and Beech J enunciated the legal principal found by Wheeler JA in Krijestorac v The State of Western Australia [2010] WASCA 35, that 'FASD is a mental impairment' and FASD is relevant to the question of mental impairment to the sentencing process. Matrin CJ, taking into account presentencing reports by eminent specialists in the field of childhood FASD, opined that FAS created an indirect nexus between LCM's offences and LCM''s cognitive ability to function in the real world. LCM presented with severe childhood trauma and abandonment issues, including prenatal alcohol exposure. The court noted, LCM's lack of education, lack of foresight, inability to foresee actionable consequences with susceptibility to peer pressure. LCM was only tested for FASD due to him being in detention when organisation, The Telethon Kids, visited as part of an ongoing program. Mazza JA and Beech J considered that, as FASD presents in a multiple of ways then, each sentence under Young Offenders Act 1994 (WA) s46 should also reflect these differences, inclusive of rehabilitation prospects and the principals of reduced moral culpability, as distinct from the legal responsibility, and moral blameworthiness. In final summation of LCM's matter, Martin CJ, Artin CJ, Beech CJ did not make excuses for LCM's traumatic life, citing that it '…did not deprive him of the capacity to know that what he did was wrong…'. However, while recognising LCM had strengths, the court also found LCM was a vulnerable victim who suffered from prenatal brain damage where FASD was a significant mitigating factor in his life. LCM was given a reduced sentence of 7 years' detention with eligibility for supervised release after serving one-half of that term.

iii. **The State of Western Australia v BB (A CHILD)**

BB, an Indigenous young person, born on 14 August 1997, was 17 years and 7 months when it was alleged between 03-04 September 2014 – 02.01.2015, BB committed 5 offences including stealing and wilful damage. Justice Reynolds on 09.03.2015 considered BB's cumulative charges along with mitigating circumstances. BB's alleged charges included, stealing a can of energy drink from a Coles Express store, wilful damage to a Ford Motor vehicle window and wilful and unlawful damage to a wooden cupboard and window, valued at $2,200.00. As to the charge of wilful damage, BB admitted to consuming alcohol prior to the offence.

When deciding whether to impose a custodial sentence, Justice Reynolds examined BB's mitigating circumstance such as:

i. BB's unfitness to stand trial, due to FASD. BB's global assessment function score rated at 40/100

ii. BB's mother's complicated pregnancy with BB was marred by domestic violence and abuse. BB's mother become homeless with health issues related to alcohol abuse.

iii. Family history of incarceration and the death of both BB's father and brother.

iv. BB's lack of appropriate consistent stable care.

Justice Reynolds considered a FAS defence noting the Criminal Law (Mentally Impaired Accused) Act 1996 (CLMIA) 26 when deciding on the child's fitness for trial. CLMIA sets out various provisions in relation to mental unfitness to stand trial and procedures required to be considered by the Court in cases where an accused is not mentally fit. Deciding whether an accused is able to maintain their unfitness to stand trial due to mental impairment is to be decided only by the presiding judge (Criminal Law (Mentally Impaired Accused) Act 1996). Provisions that a court is to take into account to establish mental impairment are found under section 9 of CLMIA and include: an inability of the accused to understand the nature of the charge, inability to understand the requirement to plead to the charge or the effect of a plea, understand the purpose of a trial, along with a number of criteria that display a person's inability to think at a standard cognitive level. Justice Reynolds in considering the totality of offences weighed against mitigating circumstances inclusive of FAS/FASD, dismissed BB's charges citing that BB was now in a supportive and collaborative environment that included appropriate family, cultural and health care support. (pg 24 sections 97 & 98).

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In addition to the recognition of FASD in the above cases for sentencing purposes there are some emerging policy changes:

National FASD Strategic Action Plan 2018-2028

On November 21 and 22, 2018, in Perth Australia, the FASD Research Australia Centre of Research Excellence (CRE) hosted the 2nd Australasian Fetal Alcohol Spectrum Disorder Conference. Keynote speakers and eminent experts on FASD included Professor Svetlana Popova and Sue Miers AM. During the two-day conference, a three-year commitment via Memorandum of Understanding (MOU) between CRE and the Canada FASD Research Network (CanFASD) was reached. The MOU agreement outlined that the two countries would enhance research into the prevention, diagnosis, and intervention of FASD. At time of writing the article, Australia and Canada remain the only countries in the world with national FASD research networks. Professor Elizabeth Elliott stated during the conference [52], that Australia is "unique among other countries in that we now have a national register, a national clinical group, a national hub for research, and a national advocacy group in NOFASD." With over 350 delegates from Australia and around the world, Minister for Health Greg Hunt during his opening video address at the FASD2018 conference, announced the launch of the Commonwealth Government's National FASD Strategic Action Plan 2018-2028. This announcement gave credence that the Australian Government is trying to make some headway into the prevention, diagnosis, and treatment of FASD [53].

FASD Youth Justice Model of Care Handbook (MOC)

In 2020 the Newcastle FASD Youth Justice Model of Care Handbook (MOC) funded by the Australian Government Department of Health was produced to outline considerations when a young people with FASD encounter the youth justice system. Additionally, The Making FASD History Prevention Program, supported by the Telethon Kids Institute, delivered a multisite prevention program (MFH Program) in two Australian sites – Newcastle, New South Wales and Alice Springs, Northern Territory. The three-year program was developed specifically for young people with FASD in the youth justice system [54]. The MOC Handbook, providing a clear diagnostic algorithm for identifying FASD youth in detention, was made available to staff across the youth justice space in Newcastle.

Ministerial Comment

On 30 November 2021, former Liberal Government Minister for Health, and Aged Care the Hon Greg Hunt in a General Media Release, acknowledged the following regarding young people and FASD in Australia (Hunt, 2021):

i. 'FASD babies suffer increased risk of premature birth, as well as permanent damage to their brain and other critical organs. More than 2 per cent of Australian babies may be born with some form of FASD'.

ii. 'From November 30, in an Australian first, a new awareness campaign to increase awareness of the risks associated with alcohol consumption during pregnancy and breastfeeding'. 'This funding brings total Government investment in the fight against FASD to more than $78 million since 2014.'

iii. '…funding to expand FASD diagnostic services was announced in the 2020–21 Budget as part of FASD diagnostic and support services to support the National Fetal Alcohol Spectrum Disorder (FASD) Strategic Action Plan 2018 – 2028' [55-67].

Conclusion

This review article presents an overview of FASD, the prevalence within the general population and specific figures related to the CJS in Australia. This review article argues that individuals with FASD may be unfit to participate in criminal proceedings and / or may lack criminal responsibility or have conditions that can provide significant mitigation of sentence. The condition may present a context for behaviours that are relevant to criminal justice professionals. While there has been progress in recognizing FASD as mitigating factor (within the Australian legal system), more needs to be done to ensure that the legal system consistently considers the condition's impact on an individual's legal capacity and culpability. FASD should be recognised as a stand-alone disability and uniformity in recognition will promote commensurate procedural developments to ensure reasonable adjustments are made. Achieving this consistency requires ongoing training, education, and the development of standardized procedures for identifying and accommodating individuals with FASD within the justice system.

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