Fetal Alcohol Spectrum Disorder and the Criminal Justice System: A Research Summary

Jacqueline Pei[1,2], Katherine Flannigans[1*], Sarah Keller[2], Michelle Stewart[1,2], Alexandra Johnson[3]

[1]Canada Fetal Alcohol Spectrum Disorder Research Network, PO Box 11364 Wessex PO, Vancouver, BC, Canada, V5R 0A4

[2]Department of Educational Psychology, University of Alberta, 6-102 Education North, Edmonton, AB, Canada, T6G 2G5

[3]Department of Justice Studies, University of Regina, 3737 Wascana Parkway, Regina, SK, Canada, S4S 0A2

Abstract

Fetal Alcohol Spectrum Disorder (FASD) is a neurodevelopmental disability that occurs as a result of fetal exposure to alcohol. Such exposure can impact physical, cognitive, social-emotional, and behavioral development, which renders individuals with FASD vulnerable to a range of adverse life outcomes when adequate supports and services are not available. One of the common adverse outcomes associated with FASD is criminal justice system (CJS) involvement, and individuals with FASD are believed to be over-represented in forensic and correctional settings. The FASD population is an exceptionally heterogeneous and complex group, with varying life experiences, clinical profiles, and levels of functional ability. These factors likely impact how an individual with FASD might engage with the CJS, function within the system, and respond to justice-related supports and intervention initiatives. In this mini review, we provide a synopsis of the current state of the literature regarding the intersections between FASD and the CJS, including research on prevalence and screening, as well as profiles and perspectives of individuals with FASD who are justice-involved. Further, recommendations are put forward to guide our work with justice-involved individuals with FASD, keeping in mind that no two individuals will present in the same way.

Fetal Alcohol Spectrum Disorder

Fetal Alcohol Spectrum Disorder (FASD) describes a range of neurodevelopmental deficits that can occur as a result of prenatal alcohol exposure (PAE), with impacts on physical, cognitive, social-emotional, and behavioral functioning[1,2]. FASD affects an estimated 2-5% of the population in the US[3] and Canada[4,5] and is a lifelong condition often associated with significant postnatal adversity. Individuals with FASD experience high rates of child welfare involvement[6], malnutrition[7], and increased risk for multiple placements as well as maltreatment before age 6[8]. School disruptions, substance use, inappropriate behaviors, trouble with the law, incarceration, residential and employment instability, and mental disorders are experienced much more frequently among individuals with FASD than in the general population[9].

The FASD population is an incredibly complex group with needs that evolve and extend across the lifespan. It is believed that intervention research can provide answers for treating specific challenges and ameliorating negative outcomes for individuals with FASD, however the literature examining the effectiveness of treatment with this population is limited[10,11].

FASD and the Justice System

Criminal justice system (CJS) involvement has long been identified as a significant adverse outcome for many individuals with FASD[9], and individuals with FASD are believed to be overrepresented in correctional settings. Legal issues in FASD have substantial financial implications, accounting for 30-40% of the total cost of FASD in Canada[12,13]. It is no surprise that the issue of FASD in the CJS has garnered increasing public, policy, and academic attention.

Indeed, there is growing interest in how to shape judicial responses, treatment, and policy to better address the needs of this population. The appetite for FASD knowledge, education, resources, and training opportunities among justice professionals is well-documented[14,15,16,17]. FASD is also emerging as a relevant issue for consideration in the courtroom[18,19]. However, the extent to which interventions and reforms are grounded in empirical evidence is unclear, and uninformed changes could not only prove to be ineffective but may even lead to unanticipated negative outcomes. Therefore, it is critical that a clear understanding of existing evidence is established to facilitate the implementation of ongoing evidence-based reforms, and evaluate current justice and treatment approaches. To this end, we recently conducted a systematic review of the peer-reviewed literature on criminal justice involvement among individuals with FASD, with results summarized below[20].

Prevalence and screening

There is currently no clear consensus around FASD prevalence in forensic settings. In one early study, US researchers reported that 60% of adolescents and adults with FASD experienced trouble with the law[9], whereas Swedish researchers recently suggested that criminality was no more common in adults with FAS than a comparison group[21]. Early diagnosis and access to services is a significant protective factor against negative outcomes for individuals with FASD, and lower rates of criminality among Swedish adults may reflect the fact that they were diagnosed at a young age and well connected to support[21].

Prevalence estimates in Canada and the US vary widely. In one study of justice-involved youth, researchers conducted comprehensive assessments for FASD and found that 23% of participants had an alcohol-related diagnosis[22]. In another study, researchers undertook retrospective file reviews and determined that 11% of justice-involved youth were diagnosed or suspected of having FASD[23]. In adult populations, researchers surveying Directors of Corrections reported drastically lower numbers: only 13 of 148,979 justice-involved individuals in Canada, and 1 in over 3 million in the US had a documented FAS diagnosis[24,25]. Across studies, researchers noted that FASD screening and assessment services are largely unavailable in justice settings. These varied results may then suggest that difficulties establishing prevalence are in part due to diagnostic capacity issues, as researchers who directly assess for FASD as part of their studies identify higher rates than those examining existing diagnoses. Researchers also report a critical need for better FASD screening, increased FASD awareness and recognition, as well as enhanced clinical training among CJS professionals.

Efforts have been made to establish FASD screening methods for justice populations, with proposed strategies ranging from training correctional officials to identify FASD, to intensively screening all inmates via medical evaluation[26]. However, only one group of researchers has empirically evaluated a screening tool in this context. In 1998, Streissguth and colleagues[27] studied the Fetal Alcohol Behavior Scale (FABS) in an adult inmate population and suggested that the FABS may have some utility in identifying justice-involved individuals with "presumed" PAE, but more research is needed to make a stronger link between the FABS and clinical diagnosis of FASD. It is clear from the lack of research (and particularly newer studies) in this area that a significant priority should be to develop effective FASD screening strategies that are relevant in the current CJS context.

Profiles and perspectives

Exploring the profiles and perspectives of justice-involved individuals with FASD allows us to better understand, characterize, and support this population. Among Canadian justice-involved youth, there is some recent evidence to suggest that they present with different experiences, risks, needs, and clinical profiles compared to youth without FASD. For instance, researchers have shown that justice-involved youth with FASD display earlier onset of offending behavior, greater criminogenic risk (e.g., foster placement, early alcohol use, comorbid disorders), fewer protective factors (e.g., social support, school commitment, resilient personality characteristics), a higher likelihood of re-offending, and greater impairments understanding and appreciating their justice-related rights compared to youth without FASD[28,29,30]. In 2013 Rogers, McLachlan, and Roesch[31] explored self-reported resilience, enculturation, and offense history among Canadian justice-involved youth with FASD and showed that the FASD group experienced different resiliency factors than youth without FASD, with cultural and spiritual factors appearing particularly important. This work on resilience and protective factors are important contributions to the strengths-based FASD literature and identify potential targets for building resilience and reducing offending.

Several studies have also been conducted to better understand adults with FASD who are justice-involved. Similar to youth justice populations, Canadian researchers described the lives of two male parolees with FASD to be characterized by severe early adversity, trauma, social isolation, instability, and mental illness, but also strength and resilience[32]. Researchers in the US have also reported that justice-involved adults with FASD experience an earlier onset of behavior problems, and higher rates of impairment, abuse, trauma, and parental substance use than justice-involved individuals with other disabilities[33]. In a small US pilot study, Brown and colleagues (2011)[34] explored interrogative suggestibility among justice-involved adult males referred for FASD assessment. They found that justice-involved adults with FASD displayed significantly greater suggestibility compared to non-forensic norms, but fewer differences when compared to court-referred adults, concluding that the heightened suggestibility in FASD may be an inherent characteristic of the disorder rather than situation-specific. These findings highlight the clinical complexity of this group and provide important insight for treatment planning.

In 2016 Currie and colleagues[35] interviewed 14 Canadian adults with FASD and their support workers to explore service access and better understand what factors might influence long-term outcomes. Eight (57%) of the adults reported justice involvement, which they associated with substance use; lack of access to an FASD-trained support worker; and lower daily structure, routine, and supervision; and later life diagnosis. The authors emphasized early diagnosis, support for addictions, enhanced FASD training for caregivers and service providers, structure and supervision, and vocational opportunities as potential avenues for fostering successful outcomes.

Pei and colleagues (2016)[36] explored the perspectives of another group of Canadian justice-involved adults with FASD and service providers experienced in working with this group. Participants discussed factors that influenced CJS involvement, including biological (e.g., cognitive deficits), psychological (e.g., mental illness), and social factors (e.g., early trauma). Participants also described what helped them to move beyond the CJS, including hope for a better future, willingness to change, and resilience. The authors made recommendations for ameliorating negative outcomes, including providing access to stable housing, better case management, improved assessment and diagnosis, moving away from punishment to strengths-based approaches, and increasing FASD awareness, education, and training in the CJS.

Very few studies have been conducted to examine offending patterns among justice-involved individuals with FASD, but in one early study, researchers suggested that crimes against persons were the most common offense type in this population, and first crimes were most often theft or shoplifting committed between the ages of 9 and 14[9]. Sentencing outcomes were most often juvenile justice and detention, and the most common alternative sentences were probation and community service. Importantly, staying in school and absence of substance abuse problems were related to lower rates of trouble with the law, which sheds light on potential areas for intervention among individuals with FASD who may be at heightened risk for problematic behaviors.

Moving Forward

The FASD population is an exceptionally heterogeneous and complex group, with varying life experiences, clinical profiles, and levels of functional ability. These factors likely impact how an individual might engage with the CJS, function within the system, and respond to supports and intervention initiatives. The following recommendations are put forward to guide work with CJS clients with FASD in general, keeping in mind that no two individuals will present in the same way:

1. An integrated and individualized response to justice-involved youth and adults with FASD is indicated to address core underlying issues and achieve just and successful outcomes.

2. A "one size fits all" approach will not be appropriate or sufficient for improving outcomes of individuals with FASD who are justice-involved. Rather, an alternative approach may be to develop justice-based interventions that recognize and support "cognitive diversity," and incorporate a high degree of flexibility and individualization to address the needs of each individual being served.

3. Expanding the framework within which FASD and criminality are considered might serve to improve outcomes, and alternative justice measures may be appropriate in some cases.

4. We must consider the potentially damaging consequences of associating FASD with CJS involvement. It is important to understand that many individuals with FASD do not encounter the CJS, and that the difficulties experienced by individuals with FASD who end up involved in the CJS are not necessarily unique to FASD. Importantly, causal discussions could place individuals with FASD on a downward trajectory as soon as we characterize criminality as FASD-specific. Rather, the constellation of challenges and life experiences that individuals with FASD experience may lead to increased risk for a range of adverse outcomes, including CJS involvement.

5. The factors underlying CJS involvement involve broad social justice issues such as poverty, unstable housing and unemployment, racism, lack of access to services, and concurrent issues such as substance use and mental and physical health challenges[37]. Accordingly, the social determinants of health and issues underlying CJS involvement must be prioritized, not only for those with FASD but for all groups of marginalized individuals.

6. Numerous gaps exist in the literature, requiring further exploration, including: justice-specific FASD screening and assessment practices, FASD-informed justice interventions, FASD education and training for justice professionals, risk assessment in FASD (e.g., whether measures should be adapted), as well as crime prevention among individuals with FASD and identification of protective factors that support resiliency and prosocial behaviors. Important insight into these gaps may be gained from research with other populations, including those with mental health challenges and other disabilities.

Conclusion

There is an urgent need for a stronger connection between research, practice, and policy as it relates to FASD and the CJS – connection grounded in evidence-based research. Researchers, service providers, and policy-makers are eager to pursue systemic change, however there is limited empirical evidence to guide this change. More research is needed to accurately identify justice-involved individuals with FASD, examine trajectories of individuals within the system, and explore how we might better respond in order to inform next steps. There are significant risks in developing programs and initiatives that are not informed by high quality research. Accordingly, this review highlights the current strengths in the literature while also speaking to the need for increased research and dissemination of existing evidence in order to cohesively and confidently move toward improved outcomes for individuals with FASD.

Original Article Citation

Modified from Flannigan, K., Pei, J., Stewart M., & Johnson, Fetal Alcohol Spectrum Disorder and the criminal justice system: A systematic literature review. Int J Law Psychiatry, 57, 42-52, Elsevier, 2018.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

References

1. Chudley AE, Conry J, Cook JL, et al. Fetal Alcohol Spectrum Disorder: Canadian guidelines for diagnosis. Canadian Medical Association Journal. 2005; 172(5 suppl): S1-S21.
2. Mattson SN, Crocker N, Nguyen TT. Fetal Alcohol Spectrum Disorders: Neuropsychological and behavioral features. Neuropsychology Review. 2011; 21(2): 81-101.
3. May PA, Chambers CD, Kalberg WO, et al. Prevalence of Fetal Alcohol Spectrum Disorders in 4 US communities. Journal of the American Medical Association. 2018; 319(5): 474-482. doi:10.1001/jama.2017.21896
4. Thanh NX, Jonsson E, Salmon A, et al. Incidence and prevalence of fetal alcohol spectrum disorder by sex and age group in Alberta, Canada. J Popul Ther Clin Pharmacol. 2014; 21(3): e395-404.
5. Popova S, Lange S, Chudley AE, et al. World Health Organization international study on the prevalence of Fetal Alcohol Spectrum Disorder (FASD): Canadian component. Retrieved from. 2018. https://www.camh.ca/-/media/files/pdfs---reports-and-books---research/who-fasd-report-english-april2018-pdf.pdf?la=en&hash=347373E4C8C362E1F746C28BB063C7DA9E2987AE
6. Lange S, Shield K, Rehm J, et al. Prevalence of Fetal Alcohol Spectrum Disorders in child care settings: a meta-analysis. Pediatrics. 2013; 132(4): e980-e995.
7. Fuglestad AJ, Fink BA, Eckerle JK, et al. Inadequate intake of nutrients essential for neurodevelopment in children with Fetal Alcohol Spectrum Disorders (FASD). Neurotoxicology and Teratology. 2013; 39: 128-132.
8. Smith DK, Johnson AB, Pears KC, et al. Child maltreatment and foster care: Unpacking the effects of prenatal and postnatal parental substance use. Child Maltreatment. 2007; 12(2): 150-160.
9. Streissguth AP, Barr HM, Kogan J, et al. Understanding the occurrence of secondary disabilities in clients with Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effects

(FAE). Final report to the Centers for Disease Control and Prevention (CDC). 1996; 96-06.
10. Burd LJ. Interventions in FASD: We must do better. Child: Care, Health and Development. 2007; 33(4): 398-400.
11. Premji S, Benzies K, Serrett K, et al. Research?based interventions for children and youth with a Fetal Alcohol Spectrum Disorder: Revealing the gap. Child: Care, Health and Development. 2007; 33(4): 389-397.
12. Thanh NX, Jonsson E. Costs of Fetal Alcohol Spectrum Disorder in the Canadian Criminal Justice System. Journal of Population Therapeutics and Clinical Pharmacology. 2015; 22(1): e125-131.
13. Popova S, Lange S, Burd L, et al. The Economic Burden of Fetal Alcohol Spectrum Disorder in Canada in 2013. Alcohol and Alcoholism. 2016; 51(3): 367-375. doi:10.1093/alcalc/agv117
14. Cox LV, Clairmont D, Cox S. Knowledge and attitudes of criminal justice professionals in relation to Fetal Alcohol Spectrum Disorder. The Canadian Journal of Clinical Pharmacology. 2008; 15(2): e306-e313.
15. Douglas H, Hammill J, Russell EA, et al. Judicial views of Foetal Alcohol Spectrum Disorder in Queensland's criminal justice system. Journal of Judicial Administration. 2012; 21(3): 178-188.
16. Mutch RC, Jones HM, Bower C, et al. Fetal Alcohol Spectrum Disorders: Using knowledge, attitudes and practice of justice professionals to support their educational needs. Journal of Population Therapeutics and Clinical Pharmacology. 2016; 23(1): e77-e89.
17. Stewart M, Glowatski K. Front-line police perceptions of Fetal Alcohol Spectrum Disorder in a Canadian province. The Police Journal. 2014; 87(1): 17-27.
18. Chandler JA. The use of neuroscientific evidence in Canadian criminal proceedings. Journal of Law and the Biosciences. 2015; 2(3): 550-579.
19. Douds AS, Stevens HR, Sumner WE. Sword or shield? A systematic review of the roles FASD evidence plays in judicial proceedings. Criminal Justice Policy Review. 2013; 24(4): 492-509.
20. Flannigan K, Pei J, Stewart M, et al. Fetal Alcohol Spectrum Disorder and the criminal justice system: A systematic literature review. Int J Law Psychiatry. 2018; 57: 42-52. doi:10.1016/j.ijlp.2017.12.008
21. Rangmar J, Hjern A, Vinnerljung B, et al. Psychosocial outcomes of Fetal Alcohol Syndrome in adulthood. Pediatrics. 2015; 135(1): e52-e58.
22. Fast DK, Conry J, Loock CA. Identifying Fetal Alcohol Syndrome among youth in the criminal justice system. Journal of Developmental & Behavioral Pediatrics. 1999; 20(5): 370-372.
23. Rojas EY, Gretton HM. Background, offence characteristics, and criminal outcomes of Aboriginal youth who sexually offend: A closer look at Aboriginal youth intervention needs. Sexual Abuse: A Journal of Research and Treatment. 2007; 19(3): 257-283.
24. Burd L, Selfridge R, Klug M, et al. Fetal alcohol syndrome in the United States corrections system. Addiction Biology. 2004; 9(2): 169-176.
25. Burd L, Selfridge R, Klug M, et al. Fetal alcohol syndrome in the Canadian corrections system. Journal of FAS International. 2003; 1(14): 1-10.

26. Burd L, Martsolf J, Juelson T. Fetal Alcohol Spectrum Disorder in the corrections system: Potential screening strategies. Journal of FAS International. 2004; 2: e1-e10.
27. Streissguth AP, Bookstein FL, Barr HM, et al. A fetal alcohol behavior scale. Alcoholism-Clinical and Experimental Research. 1998; 22(2): 325-333. doi:10.1111/j.1530-0277.1998.tb03656.x
28. Corrado RR, McCuish EC. The development of early onset, chronic, and versatile offending: The role of fetal alcohol spectrum disorder and mediating factors. International Journal of Child and Adolescent Health. 2015; 8: 241–250.
29. McLachlan K, Gray AL, Roesch R, et al. An Evaluation of the Predictive Validity of the SAVRY and YLS/CMI in Justice-Involved Youth With Fetal Alcohol Spectrum Disorder. Psychological Assessment. 2018, June 28. Advance online publication. http://dx.doi.org/10.1037/pas0000612
30. McLachlan K, Roesch R, Viljoen JL, et al. Evaluating the psycholegal abilities of young offenders with Fetal Alcohol Spectrum Disorder. Law and Human Behavior. 2014; 38(1): 10-22.
31. Rogers BJ, McLachlan K, Roesch R. Resilience and enculturation: Strengths among young offenders with Fetal Alcohol Spectrum Disorder. First Peoples Child & Family Review. 2013; 8(1): 62-80.
32. Tait CL, Mela M, Boothman G, et al. The lived experience of paroled offenders with Fetal Alcohol Spectrum Disorder and comorbid psychiatric disorder. Transcultural Psychiatry. 2017; 54(1): 107-124.
33. Stinson JD, Robbins SB. Characteristics of people with intellectual disabilities in a secure US forensic hospital. Journal of Mental Health Research in Intellectual Disabilities. 2014; 7(4): 337-358.
34. Brown NN, Gudjonsson G, Connor P. Suggestibility and Fetal Alcohol Spectrum Disorders: I'll tell you anything you want to hear. The Journal of Psychiatry & Law. 2011; 39(1): 39-71.
35. Currie BA, Hoy J, Legge L, et al. Adults with Fetal Alcohol Spectrum Disorder: Factors associated with positive outcomes and contact with the criminal justice system. Journal of Population Therapeutics and Clinical Pharmacology. 2016; 23(1): e37.
36. Pei J, Leung WSW, Jampolsky F, et al. Experiences in the Canadian criminal justice system for individuals with Fetal Alcohol Spectrum Disorders: Double jeopardy. Canadian Journal of Criminology and Criminal Justice. 2016; 58(1): 56-86.
37. Public Safety Canada. Risk and protective factors. 2015. Retrieved from https://www.publicsafety.gc.ca/cnt/cntrng-crm/crm-prvntn/fndng-prgrms/rsk-fctrs-en.aspx#rap_factor