

FASD Evidence in Canadian Criminal Cases: A Case Law Review

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Preliminary findings and portions of results from this study have been previously presented as part of a 2020 Canada FASD Research Network webinar, titled 'Understanding FASD in the Criminal Justice System: A Research Update in 2020, in summary form within several presentations to community agencies/forensic health organizations, and will also be presented at the American Psychology-Law Society Annual Conference in March, 2023.

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The coding form and list of included cases are available as supplementary tables to this article. All included cases are publicly available.

Sadly, the fourth author, Dr. Jodi L. Viljoen, passed away before the publication of this article. She made important and substantive contributions not only to this research, but also to the field of psychology and law. On a personal note, I (KM, second author) am deeply grateful to Jodi for the immeasurable impact she had in my life as a mentor, collaborator, colleague, and friend.

Abstract

Increasing evidence highlights the relevance and frequent consideration of fetal alcohol spectrum disorder (FASD) in Canadian criminal legal cases, though systematic evaluation of the impact of such evidence on legal outcomes remains limited. We sought to fill this gap via a systematic review of reported Canadian criminal cases mentioning evidence of FASD (including prenatal alcohol exposure, PAE) between 2012 and 2020. The final sample of 350 cases primarily included male (92.3%) adult defendants (86.9%). The majority focused on sentencing determinations (76.3%), along with dangerous/long-term offender (DO/LTO) designations (11.4%), guilt/innocence (3.4%), criminal responsibility (0.8%), fitness to stand trial (0.6%), and other decisions (7.4%). Indigenous defendants were overrepresented (76.9%), with a subset of cases (33.1%) addressing FASD evidence alongside *Gladue* sentencing considerations, findings that must be situated in the context of systemic inequities and colonization. Often, evidence about FASD was mentioned only once (42.3%), and roughly half of the cases referenced a formal FASD diagnosis (53.1%). Evidence about FASD was assessed as having “great relevance” in 21.7% of decisions, and among these cases, there was relative consensus that FASD can reduce a defendant’s responsibility and moral blameworthiness, and general acceptance as a mitigating factor. However, decision-making challenges were evident across cases due to competing concerns about risk, public protection, rehabilitation, and the long-term nature of the disability. Findings highlight the importance of improving evidence-based FASD knowledge, increasing access to evidence-informed resources, and bringing a culturally informed lens that highlights Indigenous ways of knowing when working within the criminal legal system.

Key words: fetal alcohol spectrum disorder, FASD, legal decision making, Canadian criminal legal system, sentencing decisions

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Fetal alcohol spectrum disorder (FASD), a common neurodevelopmental disorder caused by prenatal alcohol exposure (PAE), results in deficits in neurocognitive, self-regulatory, and adaptive functioning with impact across the lifespan (Cook et al., 2016; Hoyme et al., 2016; Kable & Mukherjee, 2017; Mattson et al., 2019). Conservative prevalence estimates range from 2% to 5%, with significantly higher rates in criminal legal settings (May et al., 2018, 2021; Popova et al., 2018; Popova, Lange, Poznyak, et al., 2019; Popova, Lange, Shield, et al., 2019). Each person with FASD experiences a unique profile of strengths and challenges. Common strengths among individuals with FASD include strong self-awareness, receptiveness to support, capacity for human connection, perseverance, and hope for the future (Flannigan, Wrath, et al., 2021). Common areas of neurodevelopmental need include intellectual functioning, attention, executive functioning, language, learning and memory, academic skills, and adaptive functioning, as well as psychosocial immaturity, impulsivity, difficulty making decisions, and problems learning from cause and effect (Kodituwakku & Kodituwakku, 2014; Mattson et al., 2019). Concurrent mental and physical health problems are also common, as are experiences of pre and postnatal adversity, resulting in a complex constellation of needs for many individuals with FASD (Flannigan, Kapasi, et al., 2021; Lebel et al., 2019; McLachlan et al., 2022; Pei et al., 2011; Popova et al., 2016; Streissguth et al., 2004). Early identification and appropriately tailored interventions support people with FASD in leveraging strengths and achieving healthy outcomes and play an important protective role in buffering against commonly experienced difficulties (Flannigan, Wrath, et al., 2021; Olson & Sparrow, 2021; Pei et al., 2019; Streissguth et al., 2004).

FASD in Criminal Justice Contexts

Increasing evidence highlights disproportionate rates of criminal legal system contact for individuals with FASD. Studies of youth and adults seen in FASD diagnostic clinics have identified rates of criminal legal system contact ranging from 30% to 60%, and rates of FASD assessed in relatively small samples of youth and adults in correctional and forensic settings range from 10% to 46% (Bower et al., 2018; Fast et al., 1999; Forrester et al., 2015; MacPherson et al., 2011; McLachlan et al., 2019; McLachlan, Flannigan, et al., 2020; Popova, Lange, Poznyak, et al., 2019; Popova, Lange, Shield, et al., 2019; Streissguth et al., 2004). While research systemically elucidating factors underlying this overrepresentation remains limited, possible contributors include the substantial and complex neurodevelopmental needs experienced by many individuals with FASD, coupled with elevated experiences of adversities associated with increased risk of becoming involved in the criminal legal system (e.g., Flannigan, Kapasi, et al., 2021; Pei & Burke, 2018; Streissguth et al., 2004). People with FASD also often go unrecognized and undiagnosed, in part, due to limited FASD knowledge among clinicians and legal professionals, stigma associated with FASD and alcohol use during pregnancy, and substantial gaps in assessment, support, and intervention resources in both community and legal contexts (Aspler et al., 2018; Astley, 2010; Brown et al., 2016; Chasnoff et al., 2015; Cox et al., 2008; McLachlan, Mullally, et al., 2020; Popova et al., 2020). People with FASD can thrive when appropriately understood and supported, however, failure to identify and appropriately respond to the complex needs experienced by many through preventative support pathways may lead to an increased risk for becoming legally involved (Flannigan, Kapasi, et al., 2021; Jampolsky, 2018; Roach & Bailey, 2009).

Legal, clinical, and case law reviews support the relevance and increasing consideration of FASD evidence across a range of legal matters including rights waiver and statement validity,

plea decisions, determinations of guilt, sentencing, dangerous/long-term offender (DO/LTO) designations, fitness/competency to stand trial, and criminal responsibility (Chandler, 2015; Douds et al., 2013; Douglas, 2010; McLachlan et al., 2014; Novick Brown & Greenspan, 2022; Reid, Kippin, et al., 2020). These findings highlight the importance of considering FASD evidence at various junctures within the criminal legal system. Scholars have suggested that aspects of FASD, including the associated neurocognitive deficits, may contradict the fundamental assumption that accused individuals are able to make informed and voluntary choices, that consequences such as incarceration are likely to deter future offending, and that departures from these assumptions are temporary and treatable (Douglas, 2010; Johansen-Hill, 2019; Novick Brown & Greenspan, 2022; Roach & Bailey, 2009). Traditional provisions in criminal statutes relevant to adjudicative competence or criminal responsibility have also generally not been effective in addressing the unique characteristics of defendants with FASD. This may be due to conservative thresholds and a tendency to focus on severe forms of psychopathology, including psychosis or overt and severe intellectual disability (Gagnier et al., 2011; Mela & Luther, 2013; Roach & Bailey, 2009).

Recent efforts to address the overrepresentation of FASD in legal settings through legislative and policy changes have proposed codifying FASD into criminal statutes as a mitigating factor and providing judges with increased access to clinical evidence about FASD, with some being passed into law in U.S. jurisdictions and several Bills in Canada (i.e., C-235, 2016; C-583, 2014) that did not pass into law (American Bar Association, 2012; Binnie & Trussler, 2013; Canadian Bar Association, 2010, 2013; SB 151, 2012; Steering Committee on FASD and Access to Justice, 2016). Importantly, there is a need to ensure that policy and legislative reform efforts are guided by evidence, including systematic appraisal of how FASD

evidence has been applied in criminal cases (Binnie & Trussler, 2013; Petrosino & Boruch, 2014; Steering Committee on FASD and Access to Justice, 2016).

Several Canadian reviews have explored the impact of evidence about PAE and FASD on legal decisions (herein referenced together as FASD evidence). Freedman (2008) analyzed sentencing decisions involving defendants with FASD ($n = 19$, 1997-2007) and showed that FASD evidence was considered as a mitigating factor in 37% of cases but did not appear to be highly relevant to judges' decisions. Vidovic (2012) explored the impact of both FASD and attention-deficit/hyperactivity disorder (ADHD) diagnoses on sentencing ($N = 107$, 2004-2009) and found that 37.4% ($n = 40$) of cases reviewed mentioned FASD, a small proportion of which were appellate level decisions ($n = 9$, 22.5%), which were excluded from subsequent analyses. Within the remaining cases, 32.2% ($n = 10$) referenced a formal FASD diagnosis. FASD evidence was also directly connected to a range of legal considerations including mitigation ($n = 11$, 35.5%), treatability (i.e., the defendant's likelihood of responding to treatment or not; $n = 14$, 41.2%), and risk to the community ($n = 6$, 19.5%). Rodger (2014) found differential application of sentencing principles ($N = 87$, 2002-2012) in cases involving defendants with FASD ($n = 42$) relative to a non-FASD comparison sample ($n = 45$). Specifically, FASD case decisions invoked deterrence less often, and both protection of the public and rehabilitation more often. However, there were no differences in the type or length of sentences between the groups. Chandler (2016) found that FASD ($n = 73$ of 133 cases, 2008-2012) comprised the most common forms of neuroscientific evidence raised in a sample of criminal cases and was most frequently presented at sentencing and in DO/LTO designation cases. Chandler found that judges grappled with a "double-edged sword," or tension between the tendency for FASD evidence to reduce moral blameworthiness through diminished capacity due to "brain damage," while simultaneously

increasing perceptions of risk and dangerousness, and pessimism for rehabilitation, particularly in cases involving serious violent offences. Hashmi et al.'s (2021) more recent review of sentencing cases for defendants with intellectual disabilities convicted of sexual offences ($N = 61$, 2015-2020), including a subset with diagnosed or possible FASD ($n = 34$, 56%), similarly found that judges struggled to balance appropriate dispositions for defendants with intellectual disabilities due to competing considerations (i.e., moral culpability, blameworthiness, risk, justice, community safety).

Another notable pattern across legal reviews was the disproportionate overrepresentation of Indigenous individuals in cases involving FASD evidence (Chandler, 2015; Hashmi et al., 2021; Rodger, 2014; Vidovic, 2012). The overrepresentation of Indigenous people in the criminal legal system is widely recognized and contextually linked with the intersecting impacts of Canada's harmful colonization and assimilationist government policies in which Indigenous people were systematically targeted and harmed, ongoing systematic and institutionalized racism, and the resulting intergenerational adverse impacts to the health and well-being of Indigenous individuals and communities (Blagg & Tulich, 2018; Kennedy-Kish et al., 2017; LaPraire, 2002; Milward, 2014; Rudin, 2008; Tait, 2003a, 2003b; Truth and Reconciliation Commission of Canada, 2015). For cases involving Indigenous defendants and FASD evidence, scholars have posited that this overrepresentation may additionally reflect the introduction of such evidence through *Gladue* reports, which are available in several Canadian provinces and territories (Chandler, 2015; Rodger, 2014).¹ These specialized reports result from sentencing provisions under section 718.2(e) of the *Criminal Code* (1996) and case law. In *R v Gladue*,

¹ *Gladue* reports are available in several Canadian provinces and territories, except for Saskatchewan (other than a program at the University of Regina), Manitoba, Newfoundland, New Brunswick, Northwest Territories, and Nunavut.

(1999) the Supreme Court of Canada ruled that courts should consider unique systemic or background factors that may have played a part in an Indigenous defendant coming before the court. In addition, courts have identified FASD as a distinct *Gladue* factor – a decision supported by the Truth and Reconciliation Commission (TRC) of Canada. Indeed, the TRC’s Calls to Action underscore the need for additional assessment and intervention resources to better address the needs of people with FASD who become involved in the criminal legal system (Stewart & Glowatski, 2018; Truth and Reconciliation Commission of Canada, 2015).

Taken together, increasing evidence suggests that judges and other legal actors may be frequently faced with the difficult task of determining the relevance of FASD in criminal cases in Canada. While several case law reviews have characterized important concerns about the nature and impact of FASD evidence on legal decision making and case outcomes, analyses have focused on a smaller number of relevant cases in the context of broader reviews (e.g., neuroscientific evidence, intellectual disabilities), or specific legal considerations (e.g., sentencing decisions). Moreover, findings from earlier reviews may also not generalize as readily to current jurisprudence given increasing awareness and recognition of FASD in criminal legal contexts and jurisdictional differences in laws and the application of FASD evidence (Chandler, 2015). Thus, the current study sought to systematically assess the frequency, nature, relevance, and impact of FASD evidence across recent published Canadian criminal cases. We also sought to advance understanding of legal analyses of such cases by undertaking a structured and exploratory evaluation of the relevance and impact of FASD evidence with respect to legal outcomes. Prior reviews also suggest an overrepresentation of Indigenous defendants in criminal cases involving FASD and other neurodevelopmental disabilities, a pattern that must be understood in the context of the ongoing impacts of colonial and assimilationist government

policies and specialized sentencing considerations for this population (Monchalin, 2016, Tait, 2003b). As a result, we sought to further characterize this pattern across our comprehensive review.

Method

Design & Procedure

This study used a retrospective review approach to systematically examine published Canadian trial and appellate level decisions for criminal cases in which FASD evidence was mentioned in relation to the defendant. A systematic search for cases published between January 1, 2012, and May 1, 2020, was conducted via Canadian legal databases (CanLii, Westlaw), using structured search terms and inclusion criteria (i.e., search terms related to PAE and/or FASD, made in reference to the defendant; see Table S1 in the online supplemental materials). Raters reviewed the full text of 655 cases returned in the initial search for inclusion, resulting in a final sample of 350 cases (Figure 1, also see Table S3 in the online supplemental materials). Cases were then coded using a structured form developed by the research team and informed by prior FASD and mental health case law reviews (Chandler, 2015; Douds et al., 2013; Viljoen et al., 2010; see Table S2 in the online supplemental materials). Cases were coded for case and defendant characteristics, statements about FASD and/or PAE, clinical FASD evaluations, *Gladue* considerations (e.g., mention of *Gladue* reports and/or *Gladue* factors), legal and clinical considerations (e.g., moral culpability; diminished responsibility; treatability; risk; credibility), and case outcomes. An FASD “mention” was broadly defined to include any statement comprising one or more terms related to either FASD and/or PAE, collectively referred to as “FASD evidence” (Table 1). Coding was completed by five undergraduate and graduate level research assistants supervised by the first and second authors. All coders had completed

coursework in forensic psychology, were familiar with FASD and its relevance to the criminal legal system, and completed training on the study protocol and coding form. Following training, all coders rated four cases to establish coding reliability against training cases that had been coded collaboratively and agreed upon by two senior research assistants and the senior author (KM). Feedback was provided when there were discrepancies between coding and corrections made. Three of the above research assistants also completed qualitative coding (see below). This study was not pre-registered.

[Insert Figure 1 About Here]

Data Analysis

The relevance of FASD evidence was coded across four categories, ranging from “no relevance” to “great relevance” (Table 1). The impact of FASD evidence on legal decisions and case outcomes was also appraised among cases determined to have “great relevance.” Content analysis was used to identify themes in cases where FASD evidence had great relevance to explore how judges applied their understanding of FASD to legal principles and ultimate legal decisions. Following existing guidelines for content analysis, all data were first read to obtain a sense of responses overall (Bauer, 2000; Hsieh & Shannon, 2005). Then cases were read word-by-word to derive codes or subthemes using an inductive approach until saturation was reached, at which point coding primarily focused on identifying rather than creating additional subthemes. Definitions and exemplars for each subtheme were also developed based on the text to enhance reliability between coders. Once all cases had been coded the subthemes and text were reexamined. Duplicate subthemes were combined, and subthemes were sorted into larger categories based on common overarching themes, resulting in broader categories or themes (e.g., FASD connected to denunciation) and corresponding subthemes (e.g., denunciation not relevant

for defendants with FASD). Frequencies are provided for broader themes but not for subthemes because they often overlapped. As such, a narrative approach was deemed the best way to characterize these nuanced discussions.

[Insert Table 1 about here]

Results

Case and defendant characteristics are presented in Figure 2 and Table 2. Cases were evenly distributed over time with a preponderance reported from Western provinces and Territories (Figure 2). Cases were primarily drawn from adult criminal court and involved a male defendant. Defendant ethnicity was disproportionately identified as Indigenous and was not otherwise clearly stated in most remaining cases. Violent non-sexual offences were the most common index offence.² Sentencing cases were most common, with the majority being initial level decisions, followed by long-term offender (LTO) and dangerous offender (DO) applications.

[Insert Figure 2 about here] [Insert Table 2 about here]

Nature of FASD Evidence

Across the full sample, terms related to FASD evidence (e.g., PAE, FASD, Alcohol-Related Neurodevelopmental Disorder [ARND]) were mentioned an average of four times per case ($M = 4.38$, $SD = 6.73$, range 1-56 mentions)³ though this varied substantially, and many cases included only a single relevant statement ($n = 148$, 42.3%; see Table 1). FASD had been formally diagnosed in just over half of the cases ($n = 186$, 53.1%). The remaining cases characterized either possible FASD without a formal diagnosis ($n = 139$, 39.7%), or an unclear

² Where a case involved multiple index offences ($n = 203$, 58%), the most serious charge category was assigned.

³ Mentions were defined as 1-3 consecutive sentences discussing FASD evidence, broadly comprising terms related to PAE and/or FASD.

diagnostic status ($n = 25$, 7.1%). Specific information about an assessment for FASD was detailed in few cases ($n = 69$, 19.7%). Among this subset, more than half referenced historical evaluations (i.e., undertaken at some time in the past, outside of the current adjudication; $n = 39$, 56.5%), while few characterized current assessments and/or expert testimony (undertaken in the context of the current adjudication to inform the present legal matter; $n = 14$, 20.3%). A small number of cases characterized both current and historical assessments ($n = 8$, 11.6%), and the assessment timeframe was unclear ($n = 8$, 11.6%) in the remaining cases. FASD evidence was also frequently referenced in the context of discussion about a *Gladue* report or *Gladue* considerations or factors ($n = 116$, 33.1%).

The relevance of FASD evidence across for the majority of cases ($n = 274$, 78.3%) ranged from no relevance through to some/possible relevance indicating more circumscribed consideration and fewer mentions (Table 1, Figure 3). Thus, the remaining analysis focuses on cases where FASD evidence was connected to legally relevant factors and found to be of great relevance in the decision/analysis ($n = 76$, 21.7%), and therefore also typically mentioned more frequently or given more consideration throughout the case ($M = 10.28$, $SD = 10.75$).

Sentencing Decisions

The majority of cases where FASD evidence was found to have great relevance involved decisions about sentencing ($n = 67$, 88.2%). Among these cases judges most often considered FASD evidence in the context of balancing key goals and principles of sentencing. Many judges also reflected on the challenge of applying FASD evidence appropriately, particularly following serious crimes, as exemplified in *R v Goodman* (2019):

Sentencing is often described as more of an art than a science. This is because although the Criminal Code sets out sentencing principles, the Court must still balance them in light of the circumstances of the offence and the offender. This task becomes particularly

complex when dealing with offenders with a diagnosis of Fetal Alcohol Spectrum Disorder (FASD) who commit very serious offences. (at para. 1)

Proportionality. FASD was frequently discussed in relation to proportionality ($n = 58$, 86.6%), with many analyses acknowledging that a defendant's FASD may reduce their degree of responsibility or moral blameworthiness (e.g., *R v Friesen*, 2016, *R v Hanska*, 2014), and several noting that this must be balanced with (and potentially outweighed by) the gravity of the offense, particularly in the context of serious, violent crimes (e.g., *R v Bernarde*, 2018; *R v Profeit*, 2020). For example, in *R v Bernarde* (2018), the judge acknowledged that FASD-related intellectual deficits reduced moral blameworthiness for an adult convicted of robbery but concluded that this did not outweigh aggravating factors of the case, including the severity of the offense. Some judges also explicitly noted that FASD does not automatically reduce a defendant's moral blameworthiness and emphasized that this should be decided on a case-by-case basis, depending on the nature and severity of an individual's deficits (e.g., *R v Ramsay*, 2012; *R v Kramer*, 2015). In *R v Ramsay* (2012), the Alberta Court of Appeal reviewed the applicability of sentencing principles for a defendant with FASD and noted that these need to be commensurate with cognitive deficits attributable to FASD, while also factoring in considerations such as protection of the public. The Court acknowledged that "sentencing is an individualized process and courts should craft sentences for FASD-affected offenders with awareness of their unique neurological deficits and abilities" (at para. 20).

Mitigation, Risk, and Public Safety. FASD evidence was also frequently reviewed in relation to mitigation ($n = 33$, 49.3%), and generally accepted as a mitigating circumstance across both youth and adult case decisions (e.g., *R v Cutter*, 2017; *R v Charlie*, 2018; *R v Friesen*, 2016; *R v Ramsay*, 2012; *R v Shingoose*, 2014). For example, in *R v Shingoose* (2014) the judge concluded that "the case law is now clear that FASD is a disorder that can be a

mitigating circumstance” (at para. 48). FASD was not explicitly identified as an aggravating factor in any cases reviewed, however, many discussions focused on balancing fit sentences for defendants with FASD in the context of risk, public safety, and separation ($n = 34, 50.7\%$). While several cases noted that public protection is less relevant for defendants with FASD and must be balanced with considerations of reduced moral blameworthiness, others suggested that FASD can increase one’s risk and emphasized the importance of public safety and separation. For instance, in *R v Laquette* (2015), mental disability or illness (such as FASD) were emphasized as form prima facie mitigating factors, though it was noted “these circumstances can turn into aggravating factors and may require that the individual be separated from society” if the mental illness or disability “creates a risk to the safety of others” (at para. 22). In *R v Ramsay* (2012), when discussing FASD, the decision noted that “mental disorder can also be, on much less frequent occasions, a factor that may escalate the objective of protection of the public but in such cases Parliament and the common law require strict proof and clear fact finding” (at para. 21). Similarly, in *R v Manyshots* (2018), when discussing the FASD diagnosis, the judge reviewed the implications of this connection in stating that the defendant was an “adult with complex developmental and mental health needs who requires a high degree of supervision and multidisciplinary support in order to ensure the safety and well-being of himself and others” (at para. 72).

Rehabilitation. Judges also frequently ($n = 39, 58.2\%$) weighed rehabilitative considerations both as a goal of sentencing, and more generally in the context of perceptions about treatability for both youth and adults (e.g., *R v Charlie*, 2014; *R v Goodman*, 2019; *R v Henderson*, 2018). In some cases, rehabilitation was emphasized as a possibility and a priority for an already vulnerable population, with emphasis on intensive community-based supervision

and supports (e.g., *R v Drysdale*, 2016; *R v J. R. W.*, 2019; *R v Primeau*, 2019; *R v T. C. M.*, 2017). For instance, in *R v Drysdale* (2016), the judge expressed optimism about successful life-long management of risk stemming from FASD-related disabilities, owing to the availability of appropriate community resources. In other cases, there was debate about whether rehabilitation was possible in the context of a neurodevelopmental disorder considered to be “lifelong” in nature. For example, in *R v McDonald* (2018) the judge summarized findings from a 2009 case and noted that “...rehabilitation, as it is conventionally understood, is largely a cognitive process premised on the ability to understand, to learn, to remember and to make choices. None of these assumptions fit well with what is known about FASD, a permanent form of brain damage that can affect all parts of the brain” (at para. 81).

Similarly, in *R v J. P.* (2018), medical and psychological intervention recommendations for a youth diagnosed with FASD were interpreted as emphasizing management over treatment, and it was determined that experts had provided limited optimism for prospects of rehabilitation, resulting in greater emphasis being given to public protection. However, the sentence was reduced by the Court of Appeal for Saskatchewan after determining that the judge had erred by taking an overly narrow view of rehabilitation. Specifically, the appellate judge noted that when understood in the context of the fundamental purpose of sentencing and FASD, rehabilitation should be conceptualized as serving to reduce risk of reoffending through structured support that controls, modifies, or manages behaviour. Similarly, in *R v Friesen* (2016) the Manitoba Court of Appeal reduced a sentence from 6 to 4 years of incarceration, finding that the judge had erred not only in failing to consider the adult accused’s diminished culpability in light of his FASD diagnosis, but also in displacing the role of rehabilitation, noting,

Rehabilitation is not limited to the traditional view of correcting the accused's attitude to prevent him from recidivating. It can also deal with finding a way to control and modify the behaviour (at para. 36).

The Court further articulated,

To mete out a sentence which is based upon a consideration of risk without due consideration of the effect of controlling his behaviour, also a form of rehabilitation, is inconsistent with the principles of sentencing. Rehabilitation should be a factor in the determination of a fit and proper sentence unless it is clearly irrelevant. While in certain cases the discounting of rehabilitation as a factor may be warranted, those would be cases where the accused's repeated conduct, as well as the medical evidence, led to that conclusion (at para. 38).

Some cases also identified concerns regarding limited availability of appropriate rehabilitative options for defendants with FASD, particularly in crafting community-based sentences (e.g., *R v C.P.L.*, 2013; *R v Joamie*, 2013). For instance, in *R v Charlie* (2014) the judge noted that a lack of available resources for defendants with FASD can result in "incarceration by default," providing only a short-term solution for both the defendant and society (at para. 61).

Deterrence and Denunciation. FASD was also frequently discussed in relation to deterrence ($n = 38$, 56.7%) and denunciation ($n = 33$, 49.3%), with general agreement that both were less relevant given that FASD-associated neurocognitive deficits challenge the underlying assumptions of these sentencing objectives, namely, that an individual can restrain impulses and understand the link between behaviour and consequences (e.g., *R v Baptiste*, 2019, *R v Charlie*, 2014; *R v F. J. N.*, 2012; *R v Ipeelee*, 2015; *R v Ramsay*, 2012). Some judges also explicitly noted that incarceration is likely to be ineffective for defendants with FASD because they may have difficulties applying cause-and-effect and managing impulses, and that individuals with FASD may be at increased risk of more serious adverse effects associated with incarceration,

including victimization (e.g., *R v Charlie*, 2014; *R v Ipeelee*, 2015; *R v T. C. M.*, 2017; *R v Baptiste*, 2019).

Need for More Information. Several judges ($n = 8$, 11.9%) indicated that they did not have enough information about a defendant's FASD to fully inform sentencing decisions and highlighted the need for additional FASD assessment or medical evidence (e.g., *R v Hanska*, 2014; *R v Weasel Bear*, 2016). The importance of such evidence was highlighted in *R v Ramsay* (2012), wherein the judge indicated that "medical reports assessing the prospect of the offender's rehabilitation and reintegration into the community are essential to the task and must be carefully analyzed" (at para. 16). Further, in *R v Friesen* (2016), the Court indicated that a "sentencing judge must have evidence of the diagnosis and its impact on the accused in order to draw the nexus between that diagnosis and the accused's conduct relating to the offences" (at para. 26).

FASD and *R v Gladue*. Within sentencing cases categorized as having great relevance, FASD evidence was also discussed in the context of *Gladue* considerations ($n = 28$, 50.9%). FASD was explicitly identified as a *Gladue* factor in a subset of these cases ($n = 9$, 32.1%), such as in *R v Roulette* (2015) where the Court of Appeal of Manitoba concluded that the sentencing judge "properly took into consideration the pertinent sentencing factors, including the relevant *Gladue* factors such as the accused's ARND [Alcohol-Related Neurodevelopmental Disorder]" (at para. 9). FASD evidence was brought forward in the context of a *Gladue* report, but not identified as a specific *Gladue* factor, in another subset of cases ($n = 8$, 28.6%; e.g., *R v Manyshots*, 2018; *R v R. D. F.*, 2018, *R v Quash*, 2019), and was also broadly intertwined with consideration of *Gladue* factors or the defendant's Indigenous background in other cases ($n = 11$, 39.3%), most notably due to their reportedly combined impact on the defendant's moral culpability. Several judges discussed *Gladue* factors and FASD as being inextricably linked;

specifically, that substance use difficulties and FASD can often be understood in the context of colonialization, residential schools, systematic racism, and intergenerational trauma (e.g., *R v Baptise*, 2019; *R v Goodman*, 2019; *R v J. P.*, 2018; *R v J. P.*, 2020; *R v McDonald*, 2018). In some cases, written decisions clearly discussed this connection. For example, in *R v Goodman* (2018), the judge stated,

As already indicated, Goodman's *Gladue* factors are, in many regards, intertwined with his cognitive deficits. His family's history of residential schools, substance abuse and child welfare involvement has had a direct impact on Goodman. Not only has his brain been affected by his mother's alcohol and substance consumption during pregnancy, the loss of his family and community connections exposed him to a life of significant neglect and trauma, including victimization. These *Gladue* factors clearly reduce Goodman's moral blameworthiness (at para. 30).

Other cases did not provide additional context for these statements. For example, in *R v K.P.* (2018), the judge wrote,

While [FASD] constitutes a factor in its own right, the sad reality is that this condition appears much more frequently in Canada's Indigenous population. It is for this reason that the disorder is often presented, as it is here, as a *Gladue* factor that may weigh against an Indigenous offender's moral blameworthiness (at para. 78).

While it is critical that judges consider the nexus between FASD, *Gladue* considerations, and legal considerations such as moral blameworthiness and mitigation, such discussions should be thoughtfully constructed so as not to perpetuate erroneous, unhelpful, and stigmatizing notions that FASD is an issue primarily or somehow uniquely affecting Indigenous people or place blame on biological mothers (Dickson & Stewart, 2022).

Youth Sentencing Considerations. FASD evidence was considered to have great relevance in several youth sentencing cases ($n = 13$, 17.1%), and was directly connected to considerations unique to youth in a subset of these cases. Specifically, FASD was considered in some cases in relation to adult sentencing decisions for youth (e.g., *R v Flett*, 2015; *R v Henderson*, 2018). For example, in *R v Henderson* (2018), the judge determined that a youth was

unlikely to benefit from available cognitive behavioural programming in a youth facility due to her FASD, and thus imposed an adult sentence given the perception of more appropriate programming and support for FASD in the federal correctional system. In contrast, in *R v Flett* (2015), the judge concluded that placement in a youth correctional facility, rather than an adult placement, was in the defendant's best interest given his PAE, the availability of resources, and a need to separate him from adults who would "prey on his intellectual limitations" (at para. 24). In other cases, judges referred to a sort of "double jeopardy" experienced by youth with FASD due to the combined impact of both young age and disability, which contributed to determinations of diminished blameworthiness (e.g., *R v A.Y.*, 2019; *R v F.D.*, 2016).

The Impact of FASD Evidence on Sentencing

Among the sentencing cases where FASD evidence was deemed to have great relevance, analysis revealed this evidence had clear impact on the ultimate sentencing outcome in only one third of decisions ($n = 22$, 32.8%). Further, FASD evidence was most often considered together with additional factors and rarely formed the sole consideration impacting sentencing outcomes. Impacts were variable, but most often resulted in reduced sentence durations (e.g., *R v Eyakfwo*, 2019; *R v Friesen*, 2016; *R v O'Connor*, 2014), application of noncustodial sentencing options to minimize the negative impact of the jail system (e.g., *R v C. G. J.*, 2019, 2020; *R v F. D.*, 2016), and increased credit for time served in pretrial custody (e.g., *R v Drysdale*, 2016; *R v Charlie*, 2014). Judges also made special placement considerations given a defendant's increased vulnerability and/or unique needs related to FASD (e.g., *R v Kasook*, 2017) and attached specific conditions to sentences, such as being required to attend targeted interventions due to FASD (e.g., *R v F.D.*, 2016).

Dangerous Offender/Long Term Offender Designation Hearings

FASD evidence had great relevance in only three of the 40 DO/LTO designation cases (7.7%) and did not appear to have direct impact on ultimate case outcomes (Table 3). In all three cases FASD evidence was directly connected to the defendant's risk of reoffending. Two cases involved the initial legal decision and subsequent appeal for the same defendant (*R v Toutsaint* 2014, 2015). Specifically, the initial decision in *R v Toutsaint* (2014) referenced a prior assessment concluding the defendant likely had FASD, which rendered him a high risk to reoffend violently. The defendant received a DO designation, but instead of receiving an indeterminate sentence, he was given a reduced determinate sentence of 3 years with a 5-year supervision order, due to *Gladue* and *Ipeelee*, and the defendant's systemic and background factors. On appeal, the FASD evidence was reiterated but not directly considered in reference to the ultimate decision, which set aside the determinate sentence and imposed an indeterminate period of incarceration (*R v Toutsaint*, 2015). In *R v Smarch* (2014), results of a court-ordered forensic assessment were reviewed, including a finding that the cognitive, affective, social, and behavioural deficits associated with FASD had "set up the conditions promoting the development" of the defendant's antisocial personality and alcohol use, and that given the permanence of his deficits, the nature of his substance use difficulties, and proximity to future potential victims, he remained at high future risk of reoffending (at para. 76). The defendant was ultimately designated as a DO and received a determinate sentence of 18.5 months incarceration (with a reduction of 14.5 months for pre-trial custody) followed by 3 years of probation, rather than an indeterminate sentence.

Determinations of Guilt

FASD evidence had great relevance in only two of the 12 cases (16.7%) involving determinations of guilt (Table 3). In both cases, FASD evidence was considered in relation to the

credibility of the defendant and their testimony (*R v Marshall*, 2013; *R v J. J. L.*, 2015). In *R v Marshall* (2013) the judge opined that the defendant was “a difficult witness” owing to self-disclosed memory problems associated with FASD, noting that he did not believe the defendant’s testimony, and that he seemed to lack understanding or insight into what happened and appeared defensive (at para. 46). The defendant was ultimately found guilty, though the judge added that he could not determine what role FASD played in the commission of the offence. In *R v J. J. L.* (2015), the defendant, who was a youth at the time of the offence, testified at trial. The judge concluded that the defendant’s FASD diagnosis, combined with a learning disability and substance use difficulties, made it difficult for him to recall details and led to discrepancies in his testimony. The judge concluded that the defendant’s testimony was too vague and therefore not credible and ultimately dismissed the defendant’s evidence.

Criminal Responsibility and Fitness to Stand Trial

FASD evidence had great relevance in two of the three (66.7%) criminal responsibility cases. In both cases, FASD-associated deficits were clearly identified as having met criteria for mental disorder (“disease of the mind”) and the defendants were ultimately found not criminally responsible by reason of mental disorder (NCRMD; *R v Baril-Blouin*, 2013; *R v Charlie*, 2016). In *R v Baril-Blouin* (2013) the judge concluded that the defendant suffered from a mental disorder based on expert testimony regarding his FASD diagnosis and associated level of functioning, with a specific focus on substantially impaired executive functioning and overall developmental functioning commensurate with a child “less than ten years of age” (at para. 7). However, the judge also specified that this decision was not meant to establish a new legal framework or precedent in with respect to FASD and criminal responsibility. In *R v Charlie* (2016) the court also heard expert evidence confirming that the accused was “profoundly

affected” by FASD, and that “although [he] does not manifest with typical psychotic symptoms, he is functionally more disabled than many if not most people with typical psychotic mental disorders” (at para. 16). The judge determined that the severity of the accused’s disability would impair his appreciation and understanding of the nature and quality of his actions during the offense. Notably, both cases departed from predominant jurisprudence concerning FASD and NCRMD decisions in the Canadian context, and given they were decided in Yukon, may suggest a need to consider jurisdictional variations in forensic psychiatric detention resources and practices that may impact ultimate legal determinations and dispositions (Gagnier et al., 2011; Roach & Bailey, 2009).

FASD evidence did not have great relevance in either of the two cases involving fitness to stand trial (*R v B. J. R.*, 2017; *R v Nehass*, 2014). FASD has resulted in findings of unfitness in several cases both within and outside of Canada, particularly when combined with other significant cognitive deficits or mental illness, notwithstanding concerns about the implications of a finding of unfitness for individuals with lifelong or irremediable deficits (Brookbanks et al., 2022; Roach & Bailey, 2009).

Other Cases

FASD evidence was also considered in a range of other legal matters ($n = 26, 7.4\%$), including admissibility of evidence, arbitrary detainment, and parole eligibility/bail hearings, but was found to have great relevance in only two cases (7.7%). In *R v Sinclair* (2013), an admissibility hearing, expert FASD evidence was found to be relevant in providing additional information about the defendant’s cognitive functioning, decision-making, planning, and ability to anticipate the consequences of their actions, and was ultimately admitted. In *R v Peequaquat* (2019) a defendant with FASD and other disabilities impacting hearing and communication

appealed an unsuccessful application to set aside a prior guilty plea for sexual assault, arguing that fresh evidence about his disabilities should be considered with respect to his ability to understand the plea process and submit an accurate plea. The judge ultimately concluded that the evidence would not have impacted the trial judge's ruling that the pleas were informed and voluntary.

Discussion

To better understand the nature and impact of FASD evidence in Canadian criminal cases, we completed a systematic review of reported decisions between 2012 and 2020, thereby extending previous Canadian case law reviews (e.g., Chandler, 2015; Douds et al., 2013; Hashmi et al., 2021; Vidovic, 2012). FASD evidence was mentioned in 350 criminal cases across Canada for both youth and adult defendants, though, this likely reflects an underestimate given the number decisions that go unreported (Chandler, 2015). Cases varied substantially by geographic region, with nearly 60% originating from Western provinces and territories (i.e., British Columbia, Alberta, Yukon) despite these accounting for only roughly one-fifth of the Canadian population (Statistics Canada, 2022). Several factors may impact this pattern, including jurisdictional differences in FASD knowledge and awareness, programming, and policy (Chandler, 2015; McDonald et al., 2011; Roach & Bailey, 2009; Sorge, 2006). Complementing earlier reviews, FASD evidence was considered across a range of legal matters, most commonly in relation to sentencing, and less frequently in DO/LTO cases, and cases involving determinations of guilt, criminal responsibility, and fitness to stand trial (Chandler, 2015; Douds et al., 2013; Vidovic, 2012).

The Nature of FASD Evidence

Results highlighted substantial variability regarding the nature of FASD evidence across cases. Overall, FASD evidence was found to have limited relevance and mentions across many cases examined, prompting the need to consider factors that may contribute to such circumscribed consideration. It is possible that insufficient FASD knowledge among legal professionals may result in limited awareness regarding the potential legal relevance of FASD (Brown et al., 2016, 2017; Cox et al., 2008; McLachlan, Mullally, et al., 2020; Passmore et al., 2018). Even if the matter of FASD is raised and its potential legal relevance understood, insufficient diagnostic or expert resources in legal contexts may lead to evidence being haphazardly introduced without a clear plan or intent for application (McLachlan, Mullally, et al., 2020; Reid, Kippin, et al., 2020). Consistent with earlier research (e.g., Chandler, 2015; Hashmi et al., 2021; Vidovic, 2012), less than one quarter of cases reviewed in the current study characterized clear information about a formal FASD assessment, with even fewer seemingly undertaken in the context of the current adjudicative matter. Ultimately, this may leave judges tasked with the challenging position of needing to draw conclusions about the current relevance of FASD-related deficits using historical or “out of date” clinical information, or without the support of experts and comprehensive evaluation. Within the current sample, many judges emphasized the importance of updated assessments and individualized decision making for defendants with FASD and noted that they were unable to draw conclusions about the relevance of FASD in cases where this information was not available (e.g., *R v Friesen*, 2016; *R v Hanska*, 2014; *R v Ramsay*, 2012; *R v Weasel Bear*, 2016).

Critically, each person with FASD experiences an individual profile of strengths and deficits thereby necessitating comprehensive and individualized evaluations (Mattson et al., 2011; McLachlan et al., 2017). Despite FASD being a disability with lifelong and whole-body

impacts, it is also critical to re-assess functioning as individuals age and transition to new life stages, and to consider most recent functioning in reference to specific legal questions (Flannigan, Wrath, et al., 2021; Pei et al., 2019). Here, forensic evaluators may play a crucial role as they can provide both clinical information about a defendant's disability and current functional deficits and aid decision makers in bridging the forensic nexus by applying this information to legal considerations relevant to the current adjudication (McLachlan, Mullally, et al., 2020; Novick Brown et al., 2012). Unfortunately, many practical barriers limit access to timely and up-to-date clinical FASD assessments both in community and legal contexts, including inadequate resources, stigma, difficulty obtaining records to confirm PAE, limited mechanisms to trigger a referral in legal settings, particularly for adults, along with insufficient FASD knowledge and skill among clinical and forensic practitioners (Flannigan, Wrath, et al., 2021; Freedman, 2008; McLachlan, Mullally, et al., 2020; Steering Committee on FASD and Access to Justice, 2016).

When diagnostic resources are accessible, defense counsel may also opt not to raise or further expand on a defendant's potential FASD as a matter of legal strategy owing to concerns about negative stereotypes that may be biasing or harmful to the case (Douds et al., 2013; Johansen-Hill, 2019; Roach & Bailey, 2009; Stewart, 2015). Negative and inaccurate stereotypes, which may present FASD as a disability that necessarily increases violence risk or reoffending, or decreases the likelihood of successful rehabilitation, are evident in criminal legal contexts (Chandler, 2015; Hashmi et al., 2021; Roach & Bailey, 2009; Vidovic, 2012), and were apparent in cases for the current review. Counsel may also have concerns about FASD evidence being ineffective or potentially harmful, particularly in cases where recommended intensive community-based resources are not available (Tibbett & Jeffrey, 2016). Indeed, lack of

community-based resources and programs designed to address the rehabilitative needs of justice-involved people with FASD remains a pressing challenge and may contribute to more serious sanctions to meet rehabilitative and programming needs, including elevated rates of incarceration, which was highlighted as a concern in some cases in the current review (Freckelton, 2016; Roach & Bailey, 2009; Vidovic, 2012). Without appropriate recognition, support, and intersectoral response, the significant needs experienced by many individuals with FASD may lead to a “revolving door” phenomenon, only further perpetuating concerns about treatability and perceptions of dangerousness and reoffense risk (Jampolsky, 2018; McCarthy et al., 2016; Novick-Brown et al., 2012; Pei et al., 2016).

Limited evidence also complicates current understanding of whether and how brief FASD mentions, in the absence of additional contextualizing information, may implicitly or overtly impact or bias proceedings in ways that cannot be discerned based on published case decisions. In the current study, just under half of cases mentioned FASD only once across decisions. Though it is difficult to ascertain the relative impact of such brief mentions in the current analysis (or lack thereof), both experimental and archival studies have demonstrated that the introduction of disability and mental health evidence can impact perceptions and attributions about defendants and legal decision-making (Chandler, 2015; Douds et al., 2013; Mowle et al., 2016; Najdowski & Bottoms, 2015; Najdowski et al., 2009; Vidovic, 2012). As such, there is a pressing need for research investigating the potential impact of FASD evidence, including brief mentions and more in-depth presentations on legal decisions and case outcomes, particularly in serious criminal matters with potentially life-changing consequences. Further, these considerations underscore a clear need for policy direction to ensure that legal professionals,

including lawyers and judges, have up-to-date, accurate, and de-biasing FASD knowledge to support evidence-based decision making (Stewart & Glowatski, 2018).

Context, Relevance, and Impact of FASD Evidence

Among the smaller subset of cases examined in the current study where FASD evidence was found to have great relevance, many judges reported detailed legal analyses. Consistent with prior Canadian case law reviews (e.g., Chandler, 2015; Rodger, 2014; Vidovic, 2012) the current findings suggest that there appears to be relative judicial consensus regarding FASD being recognized as a mitigating factor that reduces a defendant's responsibility and moral culpability, and de-emphasizes sentencing goals such as denunciation and deterrence, notwithstanding this requiring an individualized assessment of relevant deficits for each defendant. At the same time, findings also supported earlier emphasis with respect to many judges grappling with how to best weigh these considerations alongside concerns about risk, public protection, and rehabilitation, particularly in cases involving serious violent offences, underscoring important challenges inherent in applying FASD evidence in decision-making (e.g., Chandler, 2015; Douds et al., 2013; Roach & Bailey, 2009). Underlying these considerations were discussions about appropriate sanctions and interventions to promote rehabilitation and ensure public safety. In some cases, community supports were deemed most appropriate for defendants with FASD but were often unavailable due to limited resources and programming. Others considered the structure and programming offered within carceral settings to be beneficial for defendants with FASD, notwithstanding the risk for potential adverse outcomes associated with incarceration for this population and the stigmatizing and problematic connection this can insinuate between FASD and criminality (Douglas, 2010; Johansen-Hill, 2019).

The current results suggest that FASD evidence may contribute to less favourable perceptions and outcomes when understood as being associated with risk and public safety, and/or poor rehabilitative prognosis for a given defendant, a pattern evident in several sentencing and DO/LTO cases. This finding is also consistent with targeted exploration by Rodger (2014) who found disproportionate consideration of the need for public protection as a sentencing purpose for cases involving defendants with FASD compared to those without FASD. Courts may also trend towards more restrictive or punitive case outcomes for defendants with FASD due to high rates of adversities experienced by this population (e.g., substance use difficulties, housing and employment instability), and lengthy criminal histories, particularly if framed as aggravating factors associated with increased recidivism risk or perceptions of dangerousness (Flannigan, Kapasi, et al., 2021; McLachlan, Flannigan, et al., 2020; Streissguth et al., 2004). This was evident within some cases in the current study, wherein judges stated that FASD evidence may be outweighed by other aggravating circumstances (e.g., *R v Bernarde*, 2018; *R v Profeit*, 2020).

It is well established that individuals with FASD can benefit from support and intervention and live positive lives with appropriately tailored programming and resources (Currie et al., 2016; Flannigan, Wrath, 2021; Pei et al., 2016; Tait et al., 2017). Indeed, this reconceptualized and more accurate framing of rehabilitation for people with FASD was recognized by the Manitoba Court of Appeal in *R v Friesen* (2016), underscoring a need to shift from more traditional views of rehabilitation that stress the removal of symptoms or behaviours, toward an emphasis on management. Findings from the current review suggest that some courts may be moving toward this approach given frequent emphasis on rehabilitation and community management over incarceration, though conclusions regarding rehabilitative potential

and appropriate placement also varied considerably. In many cases, concerns about rehabilitation appeared to be impacted by potential misperceptions about the irremediability of “lifelong” and “permanent” FASD-related neurodevelopmental deficits. Aspects of the neurodevelopmental sequelae of FASD were also sometimes directly framed in the context of elevated risk for reoffense and poor treatment prognosis. While as with all people, individuals with FASD may present with elevated risk for reoffense and poor treatment prognosis, in addition to complex neurodevelopmental needs, it is important to ensure that appropriate clinical and forensic evaluations form the basis of such conclusions, particularly given that in the absence of this data, such perceptions may be rooted in limited knowledge and understanding of FASD (Bell et al., 2016; Chandler, 2015; Fast & Conry, 2009; Roach & Bailey, 2009).

Overrepresentation of Indigenous Defendants

The current sample included a disproportionately high number of cases involving Indigenous defendants, much above documented overrepresentation in the Canadian criminal legal system more broadly, and at a rate greater than seen in some prior case law reviews (e.g., Chandler, 2015; Hashmi et al., 2021). Importantly, these findings must be situated in the context of Canada’s harmful colonization and assimilationist government policies and actions against Indigenous peoples, such as the Residential School system, the historical and current removal of Indigenous children through the child welfare system, and the Indian Act that still regulates Indigenous communities, identity, and land (Kennedy-Kish et al., 2017; Milward, 2014; Rudin, 2009; Truth and Reconciliation Commission of Canada, 2015). These policies, coupled with ongoing systematic and institutionalized racism, have led to historical, intergenerational, and ongoing adverse impacts to the health and well-being of Indigenous individuals and communities, leading not only to substantial disparities in social determinants of health, but also

contributing to the disproportionate representation of Indigenous people in a number of institutional systems, including the criminal legal and child welfare systems (Aguiar & Halseth, 2015; Blagg & Tulich, 2018; Kennedy-Kish et al., 2017; LaPraire, 2002; Milward, 2014; Rudin, 2008; Tait, 2003a, 2003b; Truth and Reconciliation Commission of Canada, 2015; Zinger, 2020). As well, both within and beyond the criminal legal lens, significant ongoing stigmatization and stereotypes surrounding Indigenous individuals and communities regarding alcohol also persist, along with the harmful and inaccurate misconception of FASD being a problem that primarily impacts Indigenous communities despite evidence contradicting this assertion (McKenzie et al., 2016; Milward, 2014; Tait, 2003a, 2003b, 2009; Wolfson et al., 2019).

Several possible explanations may help to account for the current findings. At the broadest level, a greater proportion of Indigenous people live in the regions most represented in the current sample of cases (e.g., West and North of Ontario), where there is also a greater degree of overrepresentation of Indigenous individuals before the courts and in provincial and Federal correctional institutions (Department of Justice, 2018; Malakieh, 2020). This, combined with increased FASD-awareness and provincial level policies and frameworks geared toward supporting people with FASD in Northern and Western Canadian regions, may result in greater recognition of FASD in these areas, including among Indigenous individuals before the courts (Chandler, 2015; McDonald et al., 2011; Roach & Bailey, 2009; Sorge, 2006).

Regional variations in the availability of *Gladue* reports, with more readily accessible services in some Western provinces and territories, may also contribute to an increased likelihood of FASD evidence having been considered across criminal cases in this sample (Chandler, 2015; Statistics Canada, 2016). As a result, it is important to consider the availability

of such services when assessing whether and how information regarding *Gladue* factors is presented to the courts. For example, one survey of judges showed that they commonly received *Gladue* information a range of formats including oral submissions by defence counsel (42.6%), court workers or other support persons (7.4%), and presentence reports (14.8%), in addition to *Gladue* reports (38.9%) (Dickson & Smith, 2021; Dickson & Stewart, 2022). Further, in cases where there is more explicit opportunity to fulsomely explore and understand an Indigenous individual's background and experiences in the context of formal evaluations, *Gladue* reports may facilitate information about FASD coming to the court's attention (Chandler, 2015; Rodger, 2014). In their analysis, Rodger (2014) found that sentencing cases involving FASD were significantly more likely to mention a *Gladue* report compared to a matched sample of non-FASD cases. In some cases, FASD may also be more actively canvassed by *Gladue* report writers, such as in the context of specialized and FASD-informed programs (Dickson & Stewart, 2022). Though the current study provides a broad and descriptive characterization of such evidence, precluding more in-depth analysis, experts have raised a number of potential benefits and cautions regarding the potential impacts of *Gladue* reports for people with FASD. In particular, reviews have noted the potential harms associated with overemphasizing medical and diagnostic considerations while ignoring the underlying ongoing impacts of colonial violence (see Sabiston, 2021). They have also highlighted that the reconciliation-oriented potential of *Gladue* reports completed by FASD-informed assessors may serve an educational function regarding links between FASD and colonialization in Canada for the courts, ultimately supporting more just sentences (see Dickson & Stewart, 2022).

Inaccurate stereotypes and assumptions about FASD may also contribute to differential inquiry or consideration for cases involving Indigenous versus non-Indigenous defendants,

which when combined with few mechanisms for ordering an FASD assessment for defendants otherwise, may further the disproportionate consideration of FASD for Indigenous defendants (Chandler, 2015; Sabiston, 2021). Several prior case law reviews have shown greater overrepresentation of Indigenous defendants among cases referencing FASD evidence as compared to evidence concerning ADHD (Vidovic, 2012) or defendants without FASD (Rodger, 2014). This finding lends support to the suggestion that the singular focus on cases mentioning FASD evidence in the current study may help to account for even further disproportionate representation of Indigenous defendants as compared to prior case law reviews evaluating a broader range of neuroscientific evidence and/or neurodevelopmental disorders.

Taken together, the current findings emphasize the importance of increasing knowledge and awareness of the historical and ongoing impacts of colonialization and systemic racism in Canada, and the pressing need to implement the Truth and Reconciliation Commission's Calls to Action to better address the needs of Indigenous accused persons with FASD (Truth and Reconciliation Commission of Canada, 2015). Moreover, findings emphasize a critical need for further evaluation of how, and for whom, FASD evidence is being introduced, including more detailed studies examining the impacts of such evidence, particularly for Indigenous individuals for whom such evidence may be disproportionately raised.

International Relevance

While results from this study apply most directly to the Canadian context, key findings may also have implications for additional common law jurisdictions where similar barriers and tensions regarding FASD and the criminal legal system exist. Broadly, researchers and legal professionals across the world, including the United States, New Zealand, Australia, and the United Kingdom, have identified the potential relevance of FASD in a range of criminal legal

matters (Allely & Mukherjee, 2019; Douglas, 2010; Novick Brown & Greenspan, 2022; Reid, Kippin, et al., 2020; Freckleton et al., 2017). Thus, legal and clinical professionals around the world also likely face shared challenges balancing neurodevelopmental factors and considerations of diminished culpability and rehabilitation with risk, punishment, and public protection in the context of adversarial systems (Douglas, 2015; Freckleton et al., 2017; Reid, Kippin, et al., 2020). Despite differences in knowledge, resources, and programming across jurisdictions, barriers such as limited FASD-specific training, stigma, lack of community-based resources, and difficulties accessing diagnostic assessments are commonly reported and may similarly challenge effective consideration of FASD in criminal legal contexts across jurisdictions (McLachlan, Mullally, et al., 2020; Reid, Kippin, et al., 2020). Notably, Canada has made strides in understanding and supporting people with FASD in criminal legal contexts (e.g., FASD justice programs and centres, FASD courts; See Table 4) as well as navigating legal considerations related to FASD (e.g., *R v. Friesen*, 2016; *R v. Ramsay*, 2012). There have also been ongoing calls for legislative and policy reform in Canada to address the challenges presented by FASD in criminal courts, including two bills that aimed to codify FASD as a mitigating factor and increase the availability of court-ordered FASD assessments but were not passed into law (e.g., Bill C-583, Bill C-235), as well as syntheses including a national consensus conference (Binnie & Trussler, 2013). Therefore, Canadian examples and case law may prove helpful in informing legislation, policy, and practice shifts in other jurisdictions (Gibbs & Sherwood, 2017; Sessa et al., 2022).

Further, while the current findings are situated with the context of Canada's own ongoing and historical colonization, systemic racism, and oppression toward Indigenous people, Indigenous people have also been recognized as being disproportionately overrepresented within

criminal legal systems in other jurisdictions, underscoring the clear imperative to carefully consider and address the complex interplay between these factors in the context of FASD (Blagg et al., 2017; Douglas, 2010; Nielson & Robyn, 2003; Tait, 2003a, 2003b; Truth and Reconciliation Commission of Canada, 2015). Ultimately, many of the tensions and needs identified within the current study have likely relevance beyond the Canadian context, and while additional research is needed to inform jurisdictionally-specific needs and responses, international collaboration and shared learning may also aid in promoting rapid and evidence-based policy, research, and practice to better address FASD in the criminal legal system.

Limitations

Relying on analysis of written decisions provides an important window into better understanding how FASD evidence is applied in Canadian criminal cases, but also leaves important gaps with respect to fulsomely investigating factors that may overtly, subtly, or not at all impact legal reasoning and case outcomes. While conclusions drawn from the current analysis can serve to inform future legal and clinical practice and policy, alternative and complementary primary research approaches, such as surveys, interviews, courtroom observations, and experimental decision-making paradigms, form critical next steps in better understanding when, why, and how FASD evidence is introduced, how decision makers understand, perceive, and apply such evidence, and how these factors impact case outcomes. Further, reported decisions form only a fraction of all criminal legal proceedings, and as such, findings from the current study may not generalize to a wider range of cases, such as those resolved by guilty plea and less serious legal matters. Our analysis also focused most heavily on cases in which FASD evidence was deemed to be of great relevance to legal reasoning, in part owing to limited information provided in cases with less relevance. Important information and conclusions may be drawn from

further analysis of the latter. As well, more unique patterns and nuances may be identified in future research focused on specific types of legal matters. Written decisions published in French were also excluded from the sample; thus, findings do not capture cases from Quebec.

Policy Considerations, Recommendations, and Conclusions

The current findings lend support to increasingly recognized concerns regarding the ways in which FASD may challenge assumptions of the Canadian criminal legal system (Chandler, 2015; Douds et al., 2013; Roach & Bailey, 2009; Rodger, 2014; Sabiston, 2021). One of the most pressing continuing challenges appears to be balancing competing considerations of diminished responsibility, reduced moral blameworthiness, and mitigation due to FASD, with concerns about risk and rehabilitation, and the need for public protection, particularly given the near absence of resources in both community and legal contexts (Chandler, 2015; Douglas, 2010; Roach & Bailey, 2009). While courts will likely continue to grapple with this information, many current barriers further complicate this process, including challenges accessing clinical information about FASD and assessments, limited knowledge about FASD among criminal legal professionals and forensic clinicians, and lack of services, supports, and alternative approaches to sentencing that may better address the needs of defendants with FASD (Table 4). Policy changes are needed to improve identification of FASD through enhanced screening at key legal junctures and increased funding and capacity for specialized assessments (Binnie & Trusler, 2013; Cox, et al., 2008; Flannigan, et al., 2022; Goodfellow, 2018; McLachlan, Mullally, et al., 2020; Winsor, 2020). Concurrent policy changes should focus on implementing additional FASD-specific training for both criminal legal professionals and forensic clinicians to support them in making effective and responsible use of information about FASD during adjudication, and to protect against potentially harmful biases or stigma about FASD that may impact

decisions (Cox, et al., 2008; Douds et al., 2013; McLachlan, Mullally, et al., 2020; Mutch, et al., 2016). Wherever possible, professionals working within the criminal legal system should seek out FASD-specific training to inform their practice (McCormack et al., 2022; McLachlan, Mullally, et al., 2020).

Critically, increased access to clinical information and knowledge about FASD, be it through legislative change or other policy action, is likely to be insufficient without appropriate evidence-based supports, services, and pathways that would allow legal decision makers more latitude to make FASD-informed decisions, recommend appropriate programs and interventions, and ultimately ensure just and appropriate outcomes (Binnie & Trusler, 2013; Goodfellow, 2018; Mutch, et al., 2016). Such legislative and/or policy changes should occur in tandem to ensure that professionals approach their work through an FASD-informed lens, have an accurate understanding of the needs of individuals before the courts, and access to the resources needed to action evidence-based decisions and interventions. To date, criminal legislative reform efforts aiming to increase consideration of FASD evidence before the courts and within correctional systems have been met with a range of concerns, including how to fund specialized assessments given provincial and federal divisions for responsibility across healthcare, criminal legal, and correctional systems, the practical lack of resources needed to complete such specialized assessments and ensure these are effectively translated to inform legal decision-making, and the implementation of FASD-specific changes without similar consideration of other neurodevelopmental disabilities or forms of neurodiversity (Canadian Intergovernmental Conference Secretariat, 2016; Johansen-Hill, 2019).

While the current findings identify several key issues and inform recommendations relevant to future policy, research, and practice, there also remains a critical need for further

research examining the effectiveness and impact of FASD-specific policies, interventions, and programs in legal contexts. Findings also highlight the importance of research specifically focused on the impact of FASD evidence introduced for Indigenous individuals, particularly at the intersection of *Gladue* considerations. Further collaborative and community-engaged evaluation and policy guidance, led by Indigenous scholars and informed by Indigenous worldviews, scholarship, and research methodologies, is imperative to ensure that consideration of FASD evidence in legal contexts does not further perpetuate harmful stereotypes, or unjustly worsen legal and other social and health outcomes for Indigenous people (Flannigan et al., 2022; Hyett et al., 2018; Stewart & Glowatski, 2018; Tait, 2003b; Wolfson et al., 2019). Moreover, policy changes must prioritize equity and consider the unique needs and potential impact of changes on diverse groups, particularly given ongoing and systemic inequities and racism (Sabiston, 2021; Stewart & Glowatski, 2018). Overall, findings highlight the importance of increasing knowledge and awareness of FASD among legal, clinical, and forensic professionals, and improving access to evidence-informed resources needed to promote healthy outcomes for people with FASD.

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Table 1*Coding Definitions for Relevance of FASD Evidence*

Category	Definition	FASD mentions <i>M (SD)</i> , range
No Relevance	FASD ^a was mentioned, often briefly, but not connected with legal decisions or key aspects of legal decision-making (e.g., goals or principles of sentencing, risk, moral culpability).	1.48 (1.21), 1 - 10
Unclear Relevance	FASD was discussed thoroughly and throughout the case but not connected to key legal decisions/considerations (e.g., goals or principles of sentencing, risk, moral culpability).	3.48 (2.50), 1 - 10
Some/Possible Relevance	FASD was mentioned in the decision/analysis. It could be inferred that FASD was connected to legally relevant factors in decision-making, or broad/vague reference to a defendant's "cognitive deficits" or "disability" was made in connection with the legal decision or related factors, however, there was no explicit mention of FASD in the decision/analysis.	4.74 (5.53), 1 - 27
Great Relevance	FASD was directly connected to legally relevant factors in the decision/analysis (e.g., sentencing principles/goal, moral culpability, blameworthiness, risk, credibility, or criminal responsibility).	10.28 (10.75), 1 - 56

Note. FASD = fetal alcohol spectrum disorder.

^aFASD mentions were defined as 1-3 consecutive sentences discussing FASD evidence, broadly comprising terms related to PAE and/or FASD).

Table 2*Defendant and Case Characteristics*

<i>Age (M, SD)</i>	
At time of offence	25.6 (9.2)
At time of judgement	28.2 (9.3)
<i>Gender n (%)</i>	
Man	323 (92.0)
Woman	26 (7.0)
Other	1 (0.3)
<i>Ethnicity n (%)</i>	
Indigenous	269 (76.9)
Not mentioned	78 (22.0)
White/Caucasian	2 (0.6)
Other	1 (0.3)
<i>Index offence n (%)</i>	
Violent nonsexual	185 (53.0)
Sexual	98 (28.0)
Property	26 (8.0)
Other ^a	21 (6.0)
Drug-related	14 (4.0)
Administrative	2 (0.6)
Not mentioned	4 (1.0)
<i>Type of case n (%)</i>	
Sentencing	267 (76.3)
DO/LTO	40 (11.4)
Guilt/Innocence	12 (3.2)
NCR	3 (0.9)
FST	2 (0.6)
Other ^b	25 (7.4)
<i>Court Level n (%)</i>	
Trial Level	280 (80.0)
Appellate	70 (20.0)
<i>Youth/Criminal Court n (%)</i>	
Youth (12 to 17 years)	46 (13.1)
Criminal (\geq 18 years)	304 (86.9)

Note. $N = 247 - 248$ for all variables due to missing case information. ^aOther includes admissibility hearings, bail hearings, parole eligibility cases, and applications (e.g., for bail, judicial release. Administrative = administration of justice related offences (e.g., failure to comply, disobeying a court order); ^bOther includes admissibility hearings, bail hearings, parole eligibility cases, and applications (e.g., for bail, judicial release); DO/LTO = Dangerous Offender/Long-term Offender; FST = Fitness to Stand Trial; NCR = Not Criminally Responsible by Reason of Mental Disorder.

Table 3*Relevance of FASD Evidence*

	Sentencing (<i>n</i> = 267)	Guilt/innocence (<i>n</i> = 12)	DO/LTO (<i>n</i> = 40)	FST (<i>n</i> = 2)	NCR (<i>n</i> = 3)	Other (<i>n</i> = 26)
	<i>n</i> (%)					
No relevance	113 (42.3)	9 (75.0)	20 (50.9)	1 (50.0)	0 (0.0)	18 (69.2)
Unclear relevance	17 (6.4)	0 (0.0)	8 (20.0)	1 (50.0)	1 (33.3)	2 (7.7)
Some/possible Relevance	70 (26.2)	1 (8.3)	9 (22.5)	0 (0.0)	0 (0.0)	4 (15.4)
Great relevance	67 (25.1)	2 (16.6)	3 (7.5)	0 (0.0)	2 (66.7)	2 (7.7)

Note. *N* = 350. FASD = fetal alcohol spectrum disorder; DO/LTO = Dangerous Offender/Long-term Offender. FST = Fitness to Stand Trial. NCR = Not Criminally Responsible. Other includes admissibility hearings, bail hearings, parole eligibility cases, and applications (e.g., for bail, judicial release).

Table 4*Recommendations to Enhance Understanding and Responses for FASD in the Criminal Legal Context*

Goal	Recommendations	Special considerations
Improved identification and understanding	<ul style="list-style-type: none"> Enhanced FASD screening and identification practices in community and in legal contexts Increased availability of accurate and comprehensive clinical information about FASD to guide legal decisions 	<ul style="list-style-type: none"> Evaluations should be current, comprehensive, and completed by trained experts (Flannigan, Wrath, et al., 2021; McLachlanm Mullally, et al., 2020; Reid, Kippin, et al., 2020; Reid, White et al., 2020) Ensure that there are not biases and harmful trends in referral and screening identifications (Binnie & Trussler, 2013; Grubb et al., 2021; McLachlan et al., 2022; Tait, 2003b) Forensic evaluations completed by clinicians with both forensic and FASD expertise may be needed to inform the legal nexus where FASD presents a particular challenge to decision-making (McLachlan, Mullally, et al., 2020; Novick Brown et al., 2010) Legal decision-makers should be provided with adequate assistance to fully inform legal issues relevant to the current adjudication to avoid potentially inaccurate or incomplete information guiding decision-making (Roach & Bailey, 2009)
Improved knowledge	<ul style="list-style-type: none"> FASD-specific evidence-based training is needed for legal, clinical, and forensic professionals to provide greater awareness of FASD, and to support identification, understanding, and decision-making 	<ul style="list-style-type: none"> Policy changes should focus on implementing FASD-specific training for criminal legal professionals and forensic clinicians. Professionals working within the criminal legal system should seek out FASD-specific training wherever possible (Binner & Trussler, 2013; McCormack et al., 2022; McLachlan, Mullally, et al., 2020). Training should be evidence-based, debiasing, and address harmful stigma associated with FASD as well as common misconceptions (Bell et al., 2016; Dickson & Stewart, 2021; Passmore et al., 2020).

		<ul style="list-style-type: none"> • Training should include thorough education on cultural considerations relevant to FASD, including the impact of colonial and assimilationist policies on current rates of incarceration and FASD identification and diagnoses for Indigenous individuals, and education about systemic racism (Dickson & Stewart, 2022; Johansen-Hill, 2019; Milward, 2014; Passmore et al., 2021; Reid, Kippin, et al., 2020; Sabiston, 2021; Tait, 2003a, 2003b)
<p>Improved services and supports</p>	<ul style="list-style-type: none"> • Increased resources are needed, both within the community and the legal context, to address the unique needs of justice-involved individuals with FASD and to identify alternative approaches for sentencing and management 	<ul style="list-style-type: none"> • Promising potential approaches may involve therapeutic justice and restorative justice approaches, along with therapeutic and problem-solving courts, such as the Manitoba FASD Court, and should prioritize social determinants of health (Douglas, 2010; Evans & Bourgon, 2020; Flannigan, Pei, Rasmussen, et al., 2018; Flannigan, Pei, Stewart, et al., 2018; Steering Committee on FASD and Access to Justice, 2016) • Some services and approaches are being developed and evaluated in Canada, including specialized FASD assessment programs (e.g., FASD Federal Regional Psychiatric Centres, Saskatchewan FASD Network; Alexis Nakota Sioux Nation FASD Justice Program, Manitoba Youth Justice FASD Program (Flannigan, Pei, Rasmussen, et al., 2018; Harvie et al., 2010; Johansen-Hill, 2019; Kerodal et al., 2021; Longstaffe et al., 2017; Mela et al., 2022; Vidovic, 2012) • Research is needed to evaluate programs and approaches to ensure effective outcomes using a holistic lens that emphasizes management over traditional definitions of “treatment” and considers factors beyond reduced recidivism (Currie et al., 2016; Flannigan, Wrath, et al., 2018; Pei et al., 2016; Reid, White, et al., 2020; Tait et al., 2017)
<p>Improved evidence to inform policy,</p>	<ul style="list-style-type: none"> • There is a need for more research to investigate the potential impact of FASD 	<ul style="list-style-type: none"> • Future research can apply diverse methodological approaches, including surveys, interviews, courtroom observations, and experimental paradigms, to better

programming, and
practice

evidence on legal decision
making and to evaluate the
potential impact of FASD-
specific policy changes

understand how FASD evidence impacts legal decision-
making and outcomes across legal matters

- Future studies should also evaluate the intersection of FASD, Indigenous populations, and the criminal legal system. Researchers should consider how to best situate research questions and findings in the context of culturally-specific frameworks, including systemic inequities and colonization and assimilationist policies, and studies should be undertaken in collaboration with or led by Indigenous scholars, and community agencies using appropriate methods and research approaches (Stewart & Glowatski, 2018; Tait, 2003a; Wolfson et al., 2019)
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Figure 1

Case Selection and Exclusions

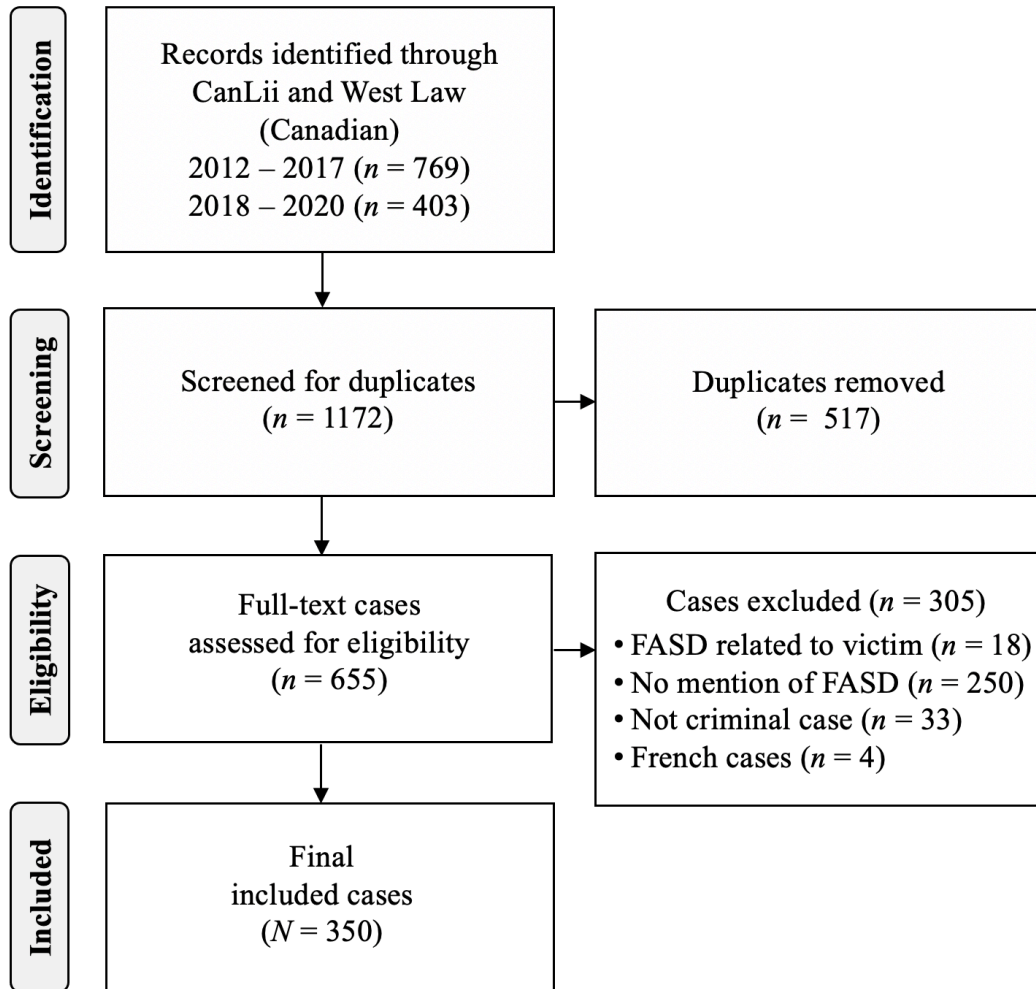
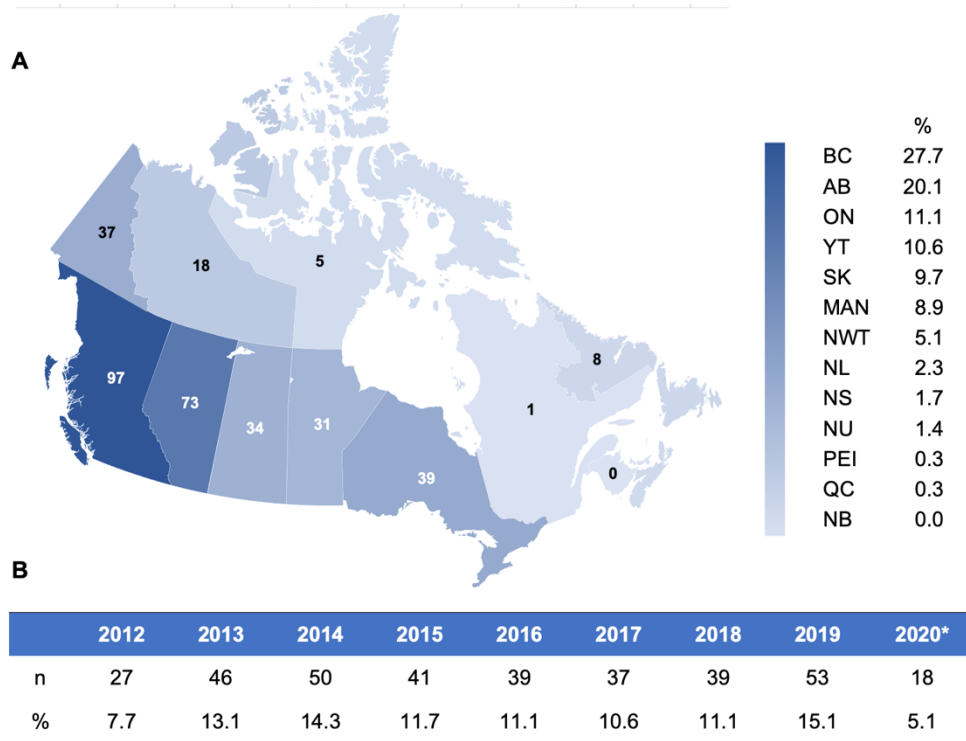


Figure 2

Case Distribution by (A) Location and (B) Year



Note. BC = British Columbia; AB = Alberta; ON = Ontario; YT = Yukon; SK = Saskatchewan; MAN = Manitoba; NWT = Northwest Territories; NL = Newfoundland and Labrador; NS = Nova Scotia; NU = Nunavut; PEI = Prince Edward Island; QC = Quebec; NB = New Brunswick.
 * Data for 2020 are complete for five months through May 2020.

Figure 3

Relevance of FASD Evidence Across Cases

