



University of
Salford
MANCHESTER

Suggestibility, false confessions and competency to stand trial in individuals with fetal alcohol spectrum disorders : current concerns and recommendations

Allely, CS and Mukherjee, RAS

<http://dx.doi.org/10.1108/JCP-11-2019-050>

Title	Suggestibility, false confessions and competency to stand trial in individuals with fetal alcohol spectrum disorders : current concerns and recommendations
Authors	Allely, CS and Mukherjee, RAS
Type	Article
URL	This version is available at: http://usir.salford.ac.uk/id/eprint/52801/
Published Date	2019

USIR is a digital collection of the research output of the University of Salford. Where copyright permits, full text material held in the repository is made freely available online and can be read, downloaded and copied for non-commercial private study or research purposes. Please check the manuscript for any further copyright restrictions.

For more information, including our policy and submission procedure, please contact the Repository Team at: usir@salford.ac.uk.

Suggestibility, False Confessions and Competency to Stand Trial in Individuals with Fetal Alcohol Spectrum Disorders: Current Concerns and Recommendations

Allely, C. S., & Mukherjee, R. A. S.

C. S. Allely.

Reader in Forensic Psychology, School of Health and Society, University of Salford, Salford, England, United Kingdom.

Affiliate member of the Gillberg Neuropsychiatry Centre, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden.

R. A. S. Mukherjee.

Consultant Psychiatrist, FASD Specialist Behaviour Clinic, Surrey and Borders Partnership NHS Foundation Trust, Redhill, England, United Kingdom.

Honorary Reader, School of Health and Society, University of Salford, Salford, England, United Kingdom.

Fetal Alcohol Spectrum Disorder (FASD) is a lifelong disorder which is the result of prenatal exposure to alcohol (PAE) (Charness, Riley, & Sowell, 2016; Rangmar et al., 2015). Alcohol crosses the placenta which may result in cell damage and have an impact on developing organs (including the brain and the spinal cord). There are numerous organs which are sensitive to alcohol exposure across all stages of pregnancy (Jonsson, 2019). FASD, previously considered an umbrella term for a range of accepted diagnoses including: fetal alcohol syndrome (FAS), partial FAS, alcohol related neurodevelopmental disorder (ARND), and alcohol related birth defects (ARBD). Increasingly these terms are being replaced by the FASD with and without dysmorphic features in the (UK) (Sign, 2018). Individuals with FASD exhibit a variety of symptoms including cognitive (e.g., intelligence, executive control, and memory), social (e.g., communication skills and suggestibility), and adaptive (e.g., decision making ability and capacity to solve problems) impairments (Brown, Gudjonsson, & Connor, 2011; BoS, 2016). One of the misconceptions regarding FASD is that individual will exhibit facial features that would suggest PAE. However, this is rarely the case. The majority of individuals who experience the negative effects of PAE lack any physical symptoms. It has been estimated that less than 10% of individuals with FASD exhibit the physical features which have been found to be associated with PAE (Astley, 2010). Moreover, individuals who do exhibit the physical symptoms of PAE, typically diagnosed as FAS (i.e., short palpebral fissures, thin vermilion border, smooth philtrum, growth deficits), tend to become less marked or pronounced as the individual gets older (Streissguth et al., 1991). Individuals with FASD often present with a range of other physical and mental health problems. A review identified 428 comorbid conditions linked to FASD. They suggest rather than being referred for FASD, these comorbid conditions are how individuals may present to services (Popova et al., 2016).

Currently, there are no guidelines which are developed to inform and support mental health professionals in the detection and identification of PAE in mental health professionals amongst their patient population (Mela, Coons-Harding, & Anderson, 2019). In order to make the diagnostic process more accessible to mental health professionals (as well as address some of the key diagnostic complexities surrounding FASD), the Diagnostic and Statistical Manual – Fifth Edition (DSM-5; American Psychiatric Association, 2013) included Neurodevelopmental Disorder Associated with Prenatal Alcohol Exposure (ND-PAE) as an example under the diagnosis “Other Specified

Neurodevelopmental Disorder”. Therefore, DSM-5 allows for a clinical diagnosis of “Other Specified Neurodevelopmental Disorder – Neurodevelopmental Disorder Associated with Prenatal Alcohol Disorder”. The diagnostic criteria are included in a section of the DSM-5 which is designated as “Conditions for Further Study” (Brown, Haun, Zapf, & Brown, 2017). Based on a review of the FASD literature, Roozen and colleagues found the overall prevalence rate of FASD to be 3.35% in the United States (Roozen et al., 2016). McQuire and colleagues (2019) recently carried out a study which screened for the prevalence of FASD in a region of the United Kingdom (UK) using data from a population-based birth-cohort study. The screening prevalence estimates identified in this study indicates that FASD is “likely to be a significant public health concern in the UK. Given current patterns of alcohol consumption and recent changes in prenatal guidance, active case ascertainment studies are urgently needed to further clarify the current epidemiology of FASD in the general population of the UK” (McQuire et al., 2019, pp. 344).

The prevalence in the legal context seems to be higher in both juvenile and adult offender samples (e.g., Fast et al., 1999; MacPherson et al., 2011; Brintnell, Sawhney, Bailey, Nelson, Pike, & Wielandt, 2019). It is important to emphasise that most individuals with FASD never become involved with the criminal justice system. Another important finding which has emerged from active case ascertainment studies is that a significant proportion of individuals identified as having a FASD only became aware of this when they are in the criminal justice system. This is despite the fact that they had previously been diagnosed with other psychiatric mental health conditions (e.g., Popova, Lange, Bekmuradov, Mihic, & Rehm, 2011; Bower et al., 2018; Brintnell et al., 2019). In a systematic review on prevalence, Popova and colleagues estimated that youth with FASD are 19 times more likely to be incarcerated when compared to youth with no diagnosis of FASD (Popova et al., 2011). Impaired executive functioning (such as a poor understanding of the consequences of inappropriate behaviours) and poor impulse control are some of the primary reasons that may lead some individuals with FASD to become involved with the criminal justice system (Verbrugge, 2003; Novick Brown, Connor, & Adler, 2012 – see also Allely & Gebbia, 2016).

Risk of false confession, false testimony and wrongful conviction in individuals with FASDs

Symptoms of FASD may have a negative impact on an individual’s ability to participate in the criminal justice system and receive a fair hearing (i.e., waive rights, enter pleas, stand trial, and abide by community supervision) (Conry, Fast, & Loock, 1997; Conry & Lane, 2009; Freckelton, 2016; McLachlan, Roesch, Viljoen, & Douglas, 2014). As recently highlighted by Brown and colleagues (2019), there is a lack of formal training specific to FASD for mental health professionals which is perpetuating

the under-identification of FASD (Chudley et al., 2005). As a result, individuals with FASD are frequently overlooked with regards to mental health evaluations - particularly within the criminal justice system (Conry & Fast, 2011; Popova et al., 2011; Brown, Carter, Haun, Wartnik, & Zapf, 2019).

FASD have been found to cause impaired linguistic and communication abilities. Difficulties with both understanding and forming coherent communication patterns are found in individuals with FASD (McLachlan, Roesch, Viljoen, & Douglas, 2014). Such impairments may cause the individual to be coerced more easily into 'improper interrogation procedures' which can subsequently lead to improperly obtained confessions, on the part of the police or other criminal justice professionals. This is a result of the greater suggestibility of individuals with FASD (McLachlan, 2012). This population may also be more prone to acquiescence and may also change their responses even with just minimal pressure (e.g., Brown et al., 2010, 2011). There is also the tendency for this group to exhibit average but superficial verbal skills that mask their below-average comprehension ability (Fast & Conry, 2009). Individuals with FASD also tend to, following their arrest, rights waiver after initially denying culpability and subsequently "over" confession. Specifically, they much more information during the interrogation compared to neurotypicals (Brown et al., 2010).

Adaptive functioning (a type of experiential learning) has also been found to be impaired in individuals with FASD. Adaptive functioning describes the ability to learn to adapt behaviour based on previous experiences. Self-regulation difficulties and impulse control in an unstructured environment (e.g., their wider social environment) can be other consequences of impaired adaptive functioning. It has been well-established that individuals with FASD are more likely to re-offend and be arrested numerous times as a result of their impaired ability to make associations between actions and their consequences (e.g., Edwards & Greenspan, 2010). The issue of confabulation is also something that needs to be considered in individuals with FASD who become involved in the criminal justice system. Confabulation involves the act of honestly lying or giving information which is based on memories which are not accurate (Brown et al., 2014). Confabulation in individuals with FASD frequently leads to incorrect testimonies and wrongful conviction and incarceration. Specifically, when an individual with FASD is not able to recall information, they may confabulate or integrate misinformation into their responses to the interviewer. Such inaccurate reporting of past events is typically unintentional (an unconscious act) and is part of the process of filling in the gaps in memory in the individual with FASD (Brown et al., 2016). FASD may also frequently result in the individual being impaired in their ability to provide a coherent, sequential narrative. In addition to confabulation described above, they may also exhibit memory impairments such as forgetting crucial defense-related information from interview to interview and not being able to recall a number of offense-related details (Brown et al., 2010).

An example of one of the most disturbing modern miscarriages of justice was identified by the Privy Council in *Pora v The Queen* [2015] UKPC 9 in New Zealand. This miscarriage of justice occurred as a result of the criminal justice system's failure to identify the diminished executive function and the propensity to confabulate due to PAE in a young Maori male who was interviewed by police about a rape and murder in 1992. As a result, he was found guilty by juries based on unreliable confessions two times. His conviction was only recently quashed in 2015 following expert evidence regarding the impact of Pora's FASD on his confession and how his FASD impacted on his responses during police questioning. The decision of the Privy Council in *Pora v The Queen* [2015] UKPC 9 provides an authoritative legal precedent for recognition that questioning by police can lead to unreliable and confabulated confessions from individuals with FASD. Pora spent over 20 years in prison. The case outlined by Freckelton highlights a number of critical issues including: the potential for PAE to result in FASD, the particular vulnerabilities that an individual with FASD can have and if the FASD is not properly identified, miscarriages of criminal justice can occur (see Freckelton, 2016a).

A proposed model standard for forensic assessment of FASDs

Brown and colleagues (2010) have recommend the use of an informal screening questionnaire which includes empirically validated factors which have are associated with FASD (Brown, Wartnik, Connor, & Adler, 2010). This screening questionnaire covers five areas:

1. **Offence Conduct** (e.g., Impulsive and illogical actions with high risk of detection, poor exit strategy, aggressive over-reaction to unforeseen events ("fight or flight"), more sophisticated/experienced co-defendants)
2. **Arrest Conduct** (e.g., immediately or easily waives rights, over-confesses (suggestible), emotionally detached from crime (shows little remorse or guilt), behavioural regression (breaks down in tears, infantile behaviour))
3. **Interview with Client** (e.g., eager to please or stubbornly resists the obvious, socially inept, immature, and naïve and does not seem to remember what you tell him/her from appointment to appointment)
4. **Prior Legal History** (e.g., easily led by more sophisticated peers and illogical offences (e.g., stealing something that has little value))
5. **Life History** (e.g., involvement with child welfare, adoption/foster or relative placement/juvenile commitment, anger control problem, Poor understanding of personal boundaries) (for full FASD experts screening questionnaire see Brown et al., 2010, pp. 417).

Even more recently, Brown and colleagues (2016) outlined a number of tips or recommendations for criminal justice interviewers. Some of these tips include how interviewers should only ask one question at a time and also use language which is simple, concrete and specific. Interviewers should avoid asking multiple questions in the same sentence (i.e., shotgun questions). Another tip is that interviewers must be aware of the possibility of suggestibility and confabulation in individuals with FASD. They highlight that both suggestion and confabulation are particularly likely when the interviewer asks leading questions or puts them under pressure. Brown and colleagues also recommend that interviewers avoid adopting judgmental or accusatory tones or phrases. In individuals with FASD, such tones or phrases can increase feelings of anxiety and reduce information processing. They should also avoid the use of overly complimentary language as this may lead to inaccuracy as individuals with FASD generally have a desire to please those in authority they come into contact with. The interviewer also needs to be alert to any overly eager responses that echo (“parrot”) the suggestions made by the interviewer or elaborate on the suggestions which are made by the interviewer. The interviewer should ask for concrete evidence (i.e., receipt for something that they said they had bought) and obtain, if possible, corroborating information from collateral sources. Lastly, they recommend that interviewers ask “What” questions rather than “how” or “why” questions. They argue that this is because “What happened next?” type questions are more concrete and are usually easier to process when compared to asking how or why questions as such questions require higher-order, abstract processing (see Brown et al., 2016 for many more tips for criminal justice interviewers).

FASD and competency to stand trial (CST)

There has been relatively little empirical investigation into the impact of an defendant's FASD on their competency to stand trial (CST). However, from the sparse literature to date, FASD symptoms are likely to have a negative affect on a defendant's CST (e.g., Brown et al., 2017; Freckelton, 2016; McLachlan et al., 2014). The assessment of CST is complicated given the broad range of how neurocognitive and adaptive functioning impaired which are associated with PAE can present. Assessment of CST, despite the challenges, is nevertheless imperative to the protection of due process rights (Brown, Haun, Novick Brown, & Zapf, 2016; Brown et al., 2017; McLachlan et al., 2014 – see Brown, Carter, Haun, Wartnik, & Zapf, 2019). Individuals with FASD can very easily appear to meet minimal criteria for CST when in fact they have nuanced or subtle impairments that may lead to significant problems for proceeding in the criminal justice system. Thus, highlighting the need for specialised knowledge regarding FASD (Brown et al., 2019). If an evaluator suspects that PAE may have been a contributory factor in reduced functional capacities relating to CST, a referral for a full

neuropsychological and language assessment should be considered although a full neuropsychological assessment may not be necessary in all CST cases of suspected FASD (i.e., if there are clear indications that the individual is not competent to proceed). There will be some cases where the individual requires a much more in-depth assessment to accurately determine their functional abilities and impairments. Some impairments may appear to be subtle, however, the impact on individuals with FASD may be severe and an in-depth assessment of their functional capacities outside of their intellectual functioning may be required (Brown et al., 2019).

CST of a defendant is a judicial decision which is usually informed by independent psychiatric or psychological evaluations of the defendant's functional capacities. The independent psychiatrist or psychologist provides information which is relevant to the court regarding cognitive, adaptive, and psychiatric factors that might affect the competency of the defendant. There are a wide range of well-validated instruments for assessing CST in defendants who are neurotypical (Pirelli, Gottdiener, & Zapf, 2011). However, currently there does not exist any structured protocol for guiding the assessment CST in defendants who have or may have FASD (Brown, Haun, Zapf, & Brown, 2017). Brown and colleagues (2017) also make reference in their paper to the DSM-5's cautionary statement (Section I. Cautionary Statement for Forensic Use of DSM-5) which states that while a diagnosis can support legal decision makers in determining things such as level of culpability, there is a discrepancy between the clinical diagnostic information and questions of legal concern. Usually, the clinical diagnosis of a DSM-5 mental disorder such as intellectual disability (intellectual developmental disorder) does not suggest that an individual with such a condition would meet the legal criteria for the presence of a mental disorder or a specified legal standard (e.g., competence, criminal responsibility). Usually additional information is needed beyond that outlined in the DSM-5 diagnostic criteria for legal criteria such as the individual's functional impairments and how these impairments affect the abilities in question. "It is precisely because impairments, abilities, and disabilities vary widely within each diagnostic category that assignment of a particular diagnosis does not imply a specific level of impairment or disability" (DSM-5, 2013, pp. 25). There is substantial evidence in the psychological and legal literature which shows how cognitive impairments can impair competency (e.g., Mossman, 2007; Simpler & Parmenter, 2011; White, Batchelor, Pulman, & Howard, 2012). Therefore, it is suggested that it is the severity and nature/scope of impairments secondary to PAE that may provide a valid basis for a judicial finding of a defendant lack of CST as opposed to the diagnosis *per se* (Brown, Haun, Zapf, & Brown, 2017).

In their recent paper, Brown and colleagues (2017) make a number of recommendations for the minimum expected steps that they suggest should be phased into all CST evaluation procedures, particularly in cases which are high-stake. These steps include the following: (1) early inquiry with

counsel regarding whether there are indications of PAE in the defendant; (2) complete record review, which include birth, medical, and school records in addition to any other childhood records which are available (e.g., child protective services, adoption records, juvenile records); (3) comprehensive neuropsychological testing (e.g., intellectual, attention, memory and learning, communication, and executive functioning skills). This would also include adaptive assessment with individuals who have observed, on a regular basis, the defendant's everyday behaviour and also assessment for suggestibility; (4) use of CST measures which are standardised (well-validated) in order to assess specific psycho-legal capacities and interpreting results of these measures in the context of the defendant's specific cognitive/adaptive profile; (5) using open-ended evaluation questions and making sure that the defendant understands the questions with in-depth probing; and (6) corroborating self-report with documented third-party data and/or collateral interviews. Lastly, they recommend that if the evaluator suspects FASD and they lack the expertise to diagnose ND-PAE according to the diagnostic guidelines in the DSM-5, a referral for specialised assessment should be sought as soon as possible for the defendant (Brown et al., 2017, pp. 24-25).

Urgent need for more research and for the training of mental health and criminal justice professionals on FASD

There is a very real need for research that empirically investigates the impact that FASD has on psycho-legal capacities (Brown et al., 2017). There is also a need for research which focuses on the development of a well-validated instrument which can be used to assess CST in defendants who have or may have FASD (Brown, Haun, Zapf, & Brown, 2017). Additionally, there is always an urgent need for FASD training (particularly in relation to CST) for forensic mental health evaluators and other criminal justice professionals. Such training is particularly crucial given the misconceptions that exist relating to FASD and the sometimes subtle and nuanced challenges that some individuals with FASD can experience. FASD training would hopefully support forensic evaluators to identify and understand the impairments which are specific to FASD and recognise the possible impact of the defendant's FASD on their CST. Such 'early' possible identification can then result in proper diagnosis by a clinician (as well as the specific impairments in the defendant) and highlight their need for appropriate and timely interventions which are specifically designed for individuals with FASD (Brown et al., 2019). The "criminal justice system is an ideal arena for intervention efforts aimed at the rehabilitation and prevention or reduction of recidivism in this unique population" (Popova et al., 2011). The case of Pora, discussed by Freckelton in detail in his paper, clearly highlights the need for criminal justice professionals (e.g., police, forensic mental health assessors, defence lawyers, prosecution lawyers and

judicial officers) to be aware of and alert to the potential impact that FASD may have on the defendants responses to questions asked of them during interrogation (Freckelton, 2016a). There is a very real risk that decisionmakers and legal professionals will overestimate a defendant's abilities and underestimate their needs if they lack sufficient knowledge and understanding of the defendant's diagnosis of FASD. This could lead to sentencing decisions which are harsher as well as a lack of access to appropriate treatment and support (Mullally, 2019).

References

Allely, C. S., & Gebbia, P. (2016). Studies investigating fetal alcohol spectrum disorders in the criminal justice system: a systematic PRISMA review. *SOJ Psychology, 3*(1), 1-11.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.

Astley, S. J. (2010). Profile of the first 1,400 patients receiving diagnostic evaluations for fetal alcohol spectrum disorder at the Washington State Fetal Alcohol Syndrome Diagnostic and Prevention Network. *Journal of Population Therapeutics and Clinical Pharmacology, 17*(1), 132–164.

Brintnell, E. S., Sawhney, A. S., Bailey, P. G., Nelson, M., Pike, A. D., & Wielandt, P. (2019). Corrections and connection to the community: A diagnostic and service program for incarcerated adult men with FASD. *International Journal of Law and Psychiatry, 64*, 8-17.

BoS, B. M. A. (2016). *Fetal alcohol spectrum disorders, a guide for healthcare practitioners update*. London: British Medical Association.

Bower, C., Watkins, R. E., Mutch, R. C., Marriott, R., Freeman, J., Kippin, N. R., ... & Tarratt, L. (2018). Fetal alcohol spectrum disorder and youth justice: a prevalence study among young people sentenced to detention in Western Australia. *BMJ Open, 8*(2), e019605.

Brown, J., Carter, M. N., Haun, J., Wartnik, J. A., & Zapf, P. A. (2019). Fetal Alcohol Spectrum Disorder (FASD) and Competency to Stand Trial (CST): A Call on Forensic Evaluators to Become Informed. *Journal of Forensic Psychology Research and Practice, 19*(4), 315-340.

- Brown, J. M., Haun, J., Zapf, P. A., & Brown, N. N. (2017). Fetal Alcohol Spectrum Disorders (FASD) and competency to stand trial (CST): Suggestions for a 'best practices' approach to forensic evaluation. *International Journal of Law and Psychiatry*, 52, 19–27.
- Brown, J., Wartnik, A., Aiken, T., Watts, E., Russell, R., Freeman, N., ... & Cich, J. (2016). Fetal Alcohol Spectrum Disorder and suggestibility: Tips for criminal justice interviewers. *The Journal of Law Enforcement*, 5(4), 1–9.
- Brown, J., Long-McGie, J., Wartnik, A., Oberoi, P., Wresh, J., Weinkauf, E., ... & Kerr, A. (2014). Fetal alcohol spectrum disorders in the criminal justice system: A review. *The Journal of Law Enforcement*, 3(6), 1-10.
- Brown, N. N., Gudjonsson, G., & Connor, P. (2011). Suggestibility and Fetal Alcohol Spectrum Disorders: I'll tell you anything you want to hear. *The Journal of Psychiatry and Law*, 39, 39–71.
- Brown, N. N., Wartnik, A. P., Connor, P. D., & Adler, R. S. (2010). A proposed model standard for forensic assessment of Fetal Alcohol Spectrum Disorders. *The Journal of Psychiatry and Law*, 38(4), 383-418.
- Charness, M. E., Riley, E. P., & Sowell, E. R. (2016). Drinking during pregnancy and the developing brain: Is any amount safe? *Trends in Cognitive Sciences*, 20(2), 80–82.
- Chudley, A. E., Conry, J., Cook, J. L., Loock, C., Rosales, T., & LeBlanc, N. (2005). Fetal alcohol spectrum disorder: Canadian guidelines for diagnosis. *Cmaj*, 172(5 suppl), S1-S21.
- Conry, J. L., Fast, D. K., & Loock, C. A. (1997). Youth in the criminal justice system: Identifying FAS and other developmental disabilities. Final report to the Ministry of the Attorney General, Vancouver, BC.
- Conry, J. L., & Lane, K. A. (2009). Characteristics of youth with FASD on adjudicated probation orders. Final report to the Department of Justice Canada and British Columbia Ministry of Children and Family Development.
- Edwards, W. J., & Greenspan, S. (2010). Adaptive behavior alcohol spectrum and fetal disorders. *The Journal of Psychiatry and Law*, 38(4), 419-447.
- Fast, D. K., & Conry, J. (2009). Fetal alcohol spectrum disorders and the criminal justice system. *Developmental Disabilities Research Reviews*, 15, 250–257.
- Fast, D. K., Conry, J., & Loock, C. A. (1999). Identifying fetal alcohol syndrome among youth in the criminal justice system. *Journal of Developmental and Behavioral Pediatrics*, 20, 370–372.

Freckelton, I. (2016). Expert evidence in fetal alcohol spectrum disorder cases. *Ethics, Medicine and Public Health*, 2, 59–73.

Freckelton, I. (2016a). Fetal Alcohol Spectrum Disorders, Expert Evidence and the Unreliability of Admissions during Police Interviews: *Pora v The Queen* [2015] UKPC 9 (Lord Kerr, Dame Sian Elias, Lord Reed, Lord Hughes, Lord Toulson). *Psychiatry, Psychology and Law*, 23(2), 173-183.

Jonsson, E. (2019). Fetal Alcohol Spectrum Disorders (FASD): A Policy Perspective. *Canadian Journal of Psychiatry*, 64(3), 161-163.

MacPherson, P., Chudley, A. E., & Grant, B. A. (2011). *Fetal alcohol spectrum disorder (FASD) in a correctional population: Prevalence, screening and characteristics*. Ontario: Correctional Service of Canada

McLachlan, K., Roesch, R., Viljoen, J. L., & Douglas, K. S. (2014). Evaluating the psycholegal abilities of young offenders with fetal alcohol spectrum disorder. *Law and Human Behavior*, 38(1), 10-22.

McLachlan, K. E. (2012). *An examination of the abilities, risks, and needs of adolescents and young adults with Fetal Alcohol Spectrum Disorder (FASD) in the criminal justice system* (Doctoral dissertation, Arts & Social Sciences: Department of Psychology).

McQuire, C., Mukherjee, R., Hurt, L., Higgins, A., Greene, G., Farewell, D., ... & Paranjothy, S. (2019). Screening prevalence of fetal alcohol spectrum disorders in a region of the United Kingdom: A population-based birth-cohort study. *Preventive Medicine*, 118, 344-351.

Mela, M., Coons-Harding, K. D., & Anderson, T. (2019). Recent advances in fetal alcohol spectrum disorder for mental health professionals. *Current Opinion in Psychiatry*, 32(4), 328-335.

Mossman, D. (2007). Predicting restorability of incompetent criminal defendants. *Journal of the American Academy of Psychiatry and the Law*, 35, 34–43.

Mullally, K. (2019). *Evaluating the Impact of Clinical Evidence about FASD on Attributions and Decisions in a Criminal Justice Context* (Doctoral dissertation).

Novick Brown, N., Connor, P. D., & Adler, R. S. (2012). Conduct-disordered adolescents with fetal alcohol spectrum disorder: Intervention in secure treatment settings. *Criminal Justice and Behavior*, 39(6), 770-793.

Pirelli, G., Gottdiener, W. H., & Zapf, P. A. (2011). A meta-analytic review of competency to stand trial research. *Psychology, Public Policy, and Law*, 17, 1–53.

- Popova, S., Lange, S., Shield, K., Mihic, A., Chudley, A. E., Mukherjee, R. A., ... & Rehm, J. (2016). Comorbidity of fetal alcohol spectrum disorder: a systematic review and meta-analysis. *The Lancet*, 387(10022), 978-987.
- Popova, S., Lange, S., Bekmuradov, D., Mihic, A., & Rehm, J. (2011). Fetal alcohol spectrum disorder prevalence estimates in correctional systems: a systematic literature review. *Canadian Journal of Public Health*, 102(5), 336-340.
- Rangmar, J., Hjern, A., Vinnerljung, B., Strömland, K., Aronson, M., & Fahlke, C. (2015). Psychosocial outcomes of Fetal Alcohol Syndrome in adulthood. *Pediatrics*, 135(1), 52–58.
- Roozen, S., Peters, G. J. Y., Kok, G., Townend, D., Nijhuis, J., & Curfs, L. (2016). Worldwide prevalence of Fetal Alcohol Spectrum Disorders: A systematic literature review including meta-analysis. *Alcoholism: Clinical and Experimental Research*, 40(1), 18–32.
- SIGN (2018). SIGN 156. Edinburgh: Health improvement Scotland.
- Simpler, A. H., & Parmenter, B. A. (2011). Can neuropsychological assessment inform forensic evaluators' psycholegal opinions? Evidence through a case report. *Journal of Forensic Psychology Practice*, 11, 351–360.
- Streissguth, P., Aase, J. M., Clarren, S. K., Randels, S. P., LaDue, R. A., & Smith, D. F. (1991). Fetal alcohol syndrome in adolescents and adults. *Journal of the American Medical Association*, 265(15), 1961–1967.
- Verbrugge, P. (2003). *Fetal alcohol spectrum disorder and the youth criminal justice system: A discussion paper*. Department of Justice Canada, Youth Justice Research.
- White, A. J., Batchelor, J., Pulman, S., & Howard, D. (2012). The role of cognitive assessment in determining fitness to stand trial. *International Journal of Forensic Mental Health*, 11, 102–109.