Summary of findings from Research findings on "FASD in the Outpatient Forensic Psychiatric Clinic" Study – Dr. Mansfield Mela et, al.

The following is a summary of the research activities supported by funds from College of Medicine and the Forensic Center of forensic behavioural science and justice study:

Rationale

It has been suggested that a substantial portion of criminal offending can be ascribed to those suffering from the life-long sequelae of prenatal alcohol exposure (PAE) (Fast and Conry 2009). In a youth forensic assessment unit, the one year rate of FASD was 23%. These numbers suggest a high prevalence of FASD in the correctional system. Correctional Services of Canada researchers conducted an incidence study among 92 new admissions to the federal penitentiary system. In the analysis, the confirmed incidence was 10% and the possible incidence, given the challenge of confirming maternal alcohol consumption, was 18%. From a systematic review youths with FASD are 19 times more likely to be incarcerated than those without FASD (Popova et. al, 2011). Little is known about mentally disordered offenders (MDOs) with FASD, how well they are supported in the community and what works in their rehabilitation.

Research question(s)

The research questions include: What is the rate of FASD comorbid with psychiatric diagnoses among MDOs in the community? Compared to those without FASD, how do MDOs with FASD differ on criminogenic, clinical and interventional variables? What best practice interventions can be identified and applied in MDOs with FASD to mitigate their neuropsychological deficits?

Methodology

The list of all attendees of the Saskatoon forensic psychiatric outpatient clinic was the study population. These are individuals on parole, probation, considered high risk to reoffend, found not criminally responsible and released to the community and other accused awaiting trial. The research assistant contacted all those and obtained consents on about 50% of those attending. The consent chronicled the tasks of screening, assessment and interview with care givers. The process included accent in cases of incapacity. A lot of the participants also have case management professionals that accompany them to the appointments for consent and other diagnostic procedures. Once consent was received, participants underwent a comprehensive assessment including the following:

Completion of demographic data form, measurement of height and weight, review of birth records, school records and other psycholegal and criminogenic records. Also comprehensive diagnostic assessment for the four domains for FASD diagnosis according to the Canadian guidelines for diagnosis of FASD. Psychological tests measuring nine different brain domains were part of the package used to determine the level of brain abnormality and facial measurements to determine the level of facial dysmorphology. All these help determine FASD diagnosis according to Canadian guidelines.

Findings

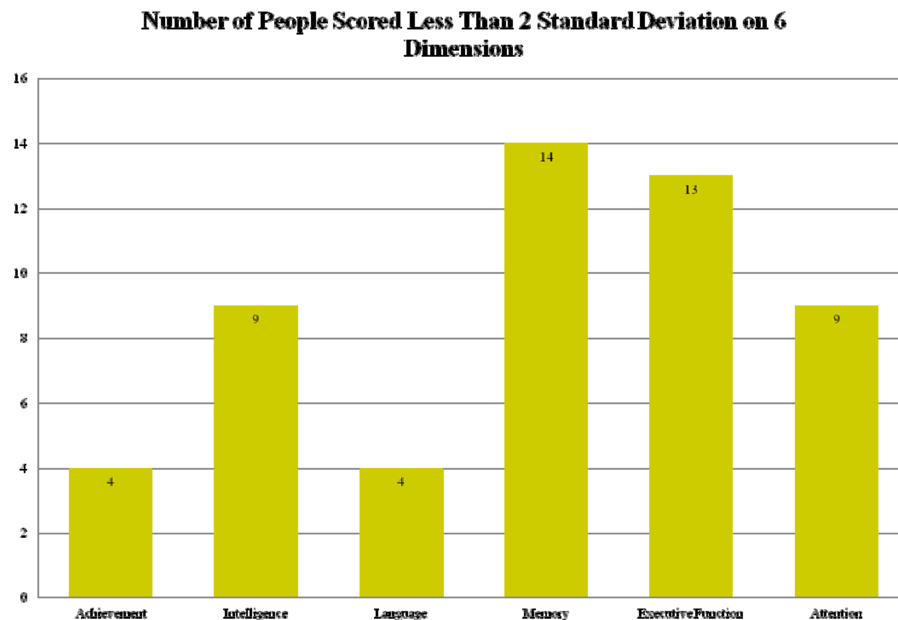
Our statistical calculation is that we need at least 60 participants to obtain a valid estimate of the rates of FASD as well as to compile the effective treatment package envisaged from the participants' responses. Fifty four individuals consented to participate. Forty four of these have had their weight and height measurements completed. As well the facial dysmorphology measurement has been completed on 44 participants. Demographic and social information have been obtained in 29 of the participants. Only 18 of the participants have completed the psychological assessment and the maternal drinking history inquiry. Thus complete assessment reports are available for the 18.

The mean age of all participants was 44 (range 30-65). The mean IQ of those who completed psychological assessment is 85. 55.5% of those with completed assessment have a diagnosis of FASD (including 11% whose diagnoses are probable due to uncertain maternal drinking history.

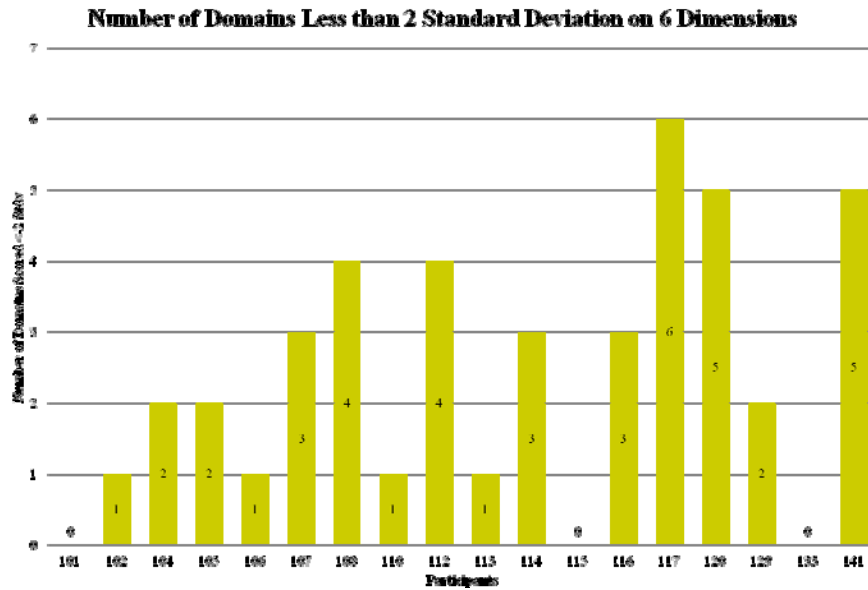
Among those with the FASD diagnosis, four three, two and one had partial FAS, static encephalopathy, neurodevelopmental disorder and FAS respectively.

Chart review of those diagnosed revealed the following mental disorder diagnosis (40% schizophrenia and substance use disorder, 30% anxiety and ADHD and 20%% paraphilia and general medical condition).

Neuropsychological Results



Reviewing the different brain domains of those who completed psychological testing, we found that difficulties with memory and executive functioning were the most present, followed by general intelligence and inattention.



Among those who completed the psychological testing (17), those with multiple domain deficits are shown in the figure above. Multiple domain abnormalities occurred in those with FASD with for instance 3-6 abnormal brain domains. Participants and their care givers identified the following as effective community intervention strategies. The topmost five include being on stimulants, positive parental and family influence, social support, having a physician and having a mentor.

Conclusions and implications for policy and/or practice

Form the pilot study we note a higher rate of FASD in forensic outpatient with those affected recording poor cognitive abilities (memory, inattention and executive functioning). These have implications for conditions in the community. Management of schizophrenia, substance use disorder, ADHD with access to mentoring, family reunion and social support should be included in the case management of mentally disordered offenders with FASD. It is likely that the format of case management with a mentor is required in a treatment package. The mentor is placed to assist a MDO with FASD in accessing a family physician, psychiatrist, social support and connecting with family. If indicated, stimulant medication can be prescribed. Psychiatrists and case managers need this type of information to inform changes in their practices and approach to those with complex needs.

A policy that ensures this package of services wrapped around such an individual can be instituted, adopting case management principles and researching the effectivess. A future plan when more subjects are recruited.

References

Fast DK, Conry J. Fetal alcohol spectrum disorders and the criminal justice system. Developmental Disabilities Research Reviews. 2009;15(3):250-7.

Popova S, Lange S, Bekmuradov D, Mihiv A, Rehm J. Fetal alcohol spectrum disorder prevalence estimates in the correctional system: A systematic literature review. Canadian Journal of Public Health. 2011;102(5):5.