

## Brief Reports

# Identifying Fetal Alcohol Syndrome Among Youth in the Criminal Justice System

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**ABSTRACT.** A disproportionately large number of youth and adults with fetal alcohol syndrome (FAS) and fetal alcohol effects (FAE) seem to be coming into conflict with the legal system. Learning and behavioral difficulties associated with FAS/FAE may make them more susceptible to criminal behavior. This study determined the prevalence of FAS/FAE among youth who were remanded for a forensic psychiatric/psychological assessment. All youth remanded to a forensic psychiatric inpatient assessment unit over a 1-year period were evaluated for FAS/FAE. Of the 287 youth, 67 (23.3%) had an alcohol-related diagnosis: 3 (1.0%) had a diagnosis of FAS and 64 (22.3%) had a diagnosis of FAE. Thus, this group is disproportionately represented in the juvenile justice system, indicating the need for increased education and awareness among those in the criminal justice system involved with these youth. *J Dev Behav Pediatr* 20:370-372, 1999. Index terms: fetal alcohol syndrome, justice, behavior problems, adolescents.

Impressions from some judges, lawyers, physicians, and others in the legal system indicate an increasing awareness that youth and adults with fetal alcohol syndrome (FAS) and fetal alcohol effects (FAE) are coming into conflict with the law. The neurological damage caused by prenatal exposure to alcohol affects the whole brain and may result in an increased susceptibility to criminal activity and victimization. FAS and FAE are characterized by specific recognizable patterns of growth deficiency, characteristic facial anomalies, and central nervous system dysfunction that are associated with significant prenatal exposure to alcohol.<sup>1</sup>

Youth with FAS/FAE are at risk for learning and behavioral disabilities (and frequently, but not always, mental handicap).<sup>2-4</sup> This combination can lead to poor judgment, impulsiveness, inability to anticipate consequences, and seeming inability to alter behavior as a result of those consequences. Results of studies of children and adults with FAS suggest that they are at increased risk for maladaptive behavior, which may lead to criminal offenses.<sup>5</sup> There are few studies of mental health issues and FAS/FAE in delinquent youth. A study of adolescents and adults with FAS/FAE found that 60% of them had experienced trouble

with the law.<sup>6</sup> When FAS/FAE is unrecognized, the needs of this population are not considered in sentencing and subsequent treatment.

Weinberg<sup>4</sup> points out that more systematic studies are needed on the prevalence of alcohol-affected youth and adults in specialized settings. There may be a disproportionate number of alcohol-affected individuals having contact with the criminal justice system. The purpose of this study was to determine the prevalence of FAS/FAE in youth remanded to the Inpatient Assessment Unit of Youth Forensic Psychiatric Services in Burnaby, British Columbia, Canada.

## METHODS

Youth were remanded to the Inpatient Assessment Unit (IAU) of Youth Forensic Psychiatric Services in Burnaby, British Columbia, Canada, for the purposes of a psychiatric and psychological assessment. They were between the ages of 12 and 18 years and had committed criminal offenses. Generally, they had pled guilty to or had been found guilty of the offense(s), and they were remanded for an assessment and recommendations for disposition (usually for a period of 8 days, but ranging from 1-30 days).

All youth who were remanded to the IAU between July 1, 1995, and June 30, 1996, were evaluated for fetal alcohol syndrome (FAS) and fetal alcohol effects (FAE).

Although there are other services in the province which provide assessments on an outpatient basis, the IAU was selected for this study because youth come from a broader catchment area, which includes British Columbia and the Yukon, to undergo detailed inpatient medical, psychological, psychiatric, and social work assessments. The professionals followed their usual procedures for assessment and diagnosis. Each youth underwent a physical examination, which included weight, height, and head circumference. The Wechsler Intelligence Scale (either Wechsler Intelligence Scale for Children, Third Edition or Wechsler Adult Intelligence Scale, Revised) was administered as part of the psychological assessment. Informed consent was obtained from the youth, parents, or guardians.

Youth were diagnosed as having FAS by one of the authors, an experienced pediatrician (C.A.L.), using the criteria of Sokol and Clarren.<sup>1</sup> Youth who had significant prenatal exposure to alcohol and who had some but not all of the characteristics for FAS received a diagnosis of FAE using the guidelines of Clarren and Smith.<sup>2</sup> Given the restricted time for the assessment, it was not always possible to obtain a confirmed prenatal alcohol history from the youth or caregivers before the youth returned to court. This history was subsequently obtained from parents, birth medical records, and other collateral sources, at which time the final diagnosis was made. During the study period, 287 youth were admitted to the IAU. This represents approximately 2.5% of youth in custody in British Columbia and the Yukon during this time.

## RESULTS

The frequencies of youth with an alcohol-related diagnosis are given in Table 1. Of the 287 youth remanded to the Inpatient Assessment Unit, 67 (23.3%) had an alcohol-related diagnosis. All had a history of significant prenatal exposure to alcohol. The average age of these 67 youth was 14.8 years (range, 12-8 yr); there were 54 males and 13 females. There were 38 white, 18 aboriginal, 7 white/aboriginal, and 4 from other ethnic groups. The average full-scale IQ for these 67 youth was  $87.26 \pm 13.76$  (mean  $\pm 1$  SD), and IQs ranged from 55 to 129.

Of these 67 youth, 3 (1.0% of the 287 youth remanded) were diagnosed as having full fetal alcohol syndrome (FAS), and 64 (22.3%) were diagnosed as having fetal alcohol effects (FAE). The FAE group included youth who would currently be diagnosed as having partial FAS (52 or 18.1 %) and/or alcohol-related neurodevelopmental disorder (12 or 4.2%) using the Institute of Medicine criteria.<sup>10</sup> Of the 67, only 3 had been diagnosed as having FAS/FAE before this assessment.

## DISCUSSION

The percentage of occurrence of fetal alcohol syndrome (FAS) in the youth remanded to the Inpatient Assessment Unit (IAU) (1.0%) is 3 to 10 times the accepted worldwide incidence for this disorder (which is estimated to be 1-3 per 1000 births).<sup>10</sup> The percentage of these youth with any alcohol-related diagnosis (23.3%) is 10 to 40 times the accepted worldwide incidence. The data support the contention that this group is disproportionately

represented in the juvenile justice system.

**Table 1. Fetal Alcohol Syndrome/Fetal Alcohol Effects Diagnoses Among Remanded Youth**

Diagnosis	Frequency	% <sup>a</sup>	% of Total <sup>b</sup>
FAS	3	4.5	1.0
FAE	64	95.5	22.3
Total	67	100.0	23.3

FAS, fetal alcohol syndrome; FAE, fetal alcohol effects.

<sup>a</sup>Percentage of alcohol-affected youth (total = 67).

<sup>b</sup>Percentage of youth remanded to the Inpatient Assessment Unit (total = 287).

The fact that only three had been diagnosed with FAS/fetal alcohol effects (FAE) before being remanded to the IAU indicates a need for extensive education of physicians in the general community. People with FAS are not always mentally handicapped, but still can have significant, neurologically based learning and behavioral difficulties. There are difficulties for inexperienced physicians in making the diagnosis for the first time when the person is already an adolescent. Physical features (facial characteristics and growth) change, and there are more problems establishing a confirmed prenatal alcohol history. Also, by adolescence, the opportunity for successful preventive interventions has diminished.

To our knowledge, this is the first published study on the prevalence of FAS/FAE in youth in the criminal justice system. This study was done in a specialized forensic psychiatric unit; further research is required with more general forensic populations.

There is a paucity of clinical expertise to identify and provide for the needs of incarcerated youth with FAS/FAE. There needs to be education of health professionals and corrections workers around this high-risk population to develop skills in recognition and referral for diagnosis when warranted. Early identification and treatment of these youth is essential to improve services for this population before, during, and after incarceration. It is recognized that youth with learning disabilities and attention-deficit/hyperactivity disorder who are not alcohol-affected are at increased risk for involvement with the criminal justice system,<sup>11</sup> and it seems that those with FAS/FAE are also at risk. Individuals with FAS/FAE, like those with other disabilities, require special considerations regarding diversion, sentencing, disposition, intervention, and treatment.<sup>12</sup>

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## FAS in Youth in the Justice System

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