



PREVALENCE OF MENTAL DISORDERS AMONG YOUTH IN THE JUVENILE JUSTICE SYSTEM

Despite increasing interest in the mental health needs of children involved in the juvenile justice system, relatively little is known about the base rates of specific mental disorders in this population due to the absence of any national prevalence data. In 1992, two reviews of the existing empirical literature (Otto, Greenstein, Johnson, Friedman, 1992; Wierson, Forehand, & Frame, 1992) both concluded that relatively few well-controlled epidemiological studies had been conducted that could inform our knowledge of the prevalence of mental disorders in the juvenile justice system. Factors commonly cited that limited the generalizability of much of the existing research included: (a) failure to use random or comprehensive sampling procedures, (b) use of differing assessment instruments across studies or reliance on file information rather than structured diagnostic interviews, (c) assignment of only one diagnosis and failure to assess for multiple diagnoses/comorbidity, (d) samples being drawn from only one site or state, and (e) failure to consider how diagnostic rates might be affected by relevant demographic and historical variables such as age, gender, and length of detainment. Since the publication of these two reviews, few studies have been conducted that have significantly improved our knowledge of the prevalence of mental disorders in juvenile justice populations and national prevalence estimates of mental disorder still have not been established.

Despite the limitations of existing research on the prevalence of mental disorders in the juvenile justice system, some tentative estimates can be provided for specific diagnostic categories, as well as for other clinically significant issues such as a history of child abuse, suicidal behavior, and prior mental health treatment. The following base rates are distilled from the Otto et al. (1992) and Wierson et al. (1992) reviews, as well as from more recent research, and include only those studies that used comprehensive or random sampling procedures. Given the methodological limitations already mentioned, particularly regarding the common failure to assess for co-occurring disorders, these rates should be considered as conservative estimates of the prevalence of these disorders. As well, none of the rates recited here are from studies that employed *DSM-IV* (American Psychiatric Association; APA, 1994) diagnostic criteria.

Most of the rates reported are based on earlier versions of the *DSM* and used what are now outdated criteria for most diagnostic categories.

DIAGNOSES

Conduct Disorder: As might be expected, conduct disorder appears to be the most prominent diagnosis among youth in juvenile justice settings, with most studies reporting prevalence to be greater than 80%. Depending on diagnostic criteria used and assessment methods employed, however, exact base rates vary considerably from study to study. This is due, in part, to changes in the *DSM* criteria over the years. For example, Adam, Kashani, and Schulte (1991) showed significant changes in the base rate of conduct disorder in their sample depending on whether *DSM-III* (APA, 1980) or *DSM-III-R* (APA, 1987) criteria were employed. Typically, however, prevalence estimates have ranged between 50% and 90% in most well-controlled studies. This high rate is not surprising, given that the diagnostic criteria for conduct disorder include various types of delinquent and criminal behavior.

Substance Abuse: Rates of substance abuse or dependence generally have been reported to range between 25% and 50%, although rates of up to 69% also have been reported. These rates of abuse or dependence should not be confused with rates of substance use, which are considerably higher. Many juveniles (13%-25%) also report a history of substance abuse treatment. Evidence from adult populations suggests that substance abuse co-occurs with major Axis I mental disorders with greater frequency in criminal justice settings than in the general population (Edens, Peters, & Hills, 1997). Although this relationship has not been studied as extensively in juveniles, there is evidence to suggest that a high level of comorbidity is also evident in children and adolescents in the juvenile justice system.

Attention Deficit/Hyperactivity Disorder (ADHD): The prevalence of ADHD has varied widely from study to study, with rates ranging from 0% to 46%. Studies using clinical interviews have generally reported higher rates than those employing behavioral rating scales or

checklists. The failure to assess for comorbidity with conduct disorder and the tendency to assign only one diagnosis may also account for the low base rate of ADHD in some studies. Conduct problems and ADHD have been shown to co-occur with great consistency in the general population (see Hinshaw (1987) for a review). Furthermore, it has been documented that juvenile delinquents diagnosed with both conduct disorder and ADHD have a greater number of total arrests and tend to be arrested at an earlier age than delinquents with conduct disorder who do not also have ADHD (Forehand, Wierson, Frame, Kempton, & Armistead, 1991).

Affective Disorders: Rates of affective disorders such as major depression, bipolar disorder, dysthymia, and cyclothymia have ranged between 32% and 78% in studies of juveniles that used diagnostic interviews. Investigators not employing interviews generally have reported much lower prevalences, ranging from 2% to 12%. Given the relatively high comorbidity between conduct and affective disorders in the general population (see McConaughy and Skiba (1993) for a review), some authors have argued that antisocial behavior or aggression in juveniles may be an indirect manifestation of their depressive disorder (Ney, Colbert, Newman, & Young, 1986). Also, there appears to be a greater tendency for affective disorders to co-occur with substance abuse problems in juvenile justice settings than in the general population.

Anxiety Disorders: Base rates of anxiety disorders have varied widely, with studies employing clinical interviews typically reporting higher prevalence (6%-41%) than those not using interviews (0%-7%). More recent research specifically examining Post Traumatic Stress Disorder (PTSD) in incarcerated delinquents has suggested that PTSD tends to co-occur with other mental disorders such as substance abuse and conduct disorder at a high frequency, particularly among children exposed to serious interpersonal violence (Steiner, Garcia, & Matthews, 1997). This is a significant finding, given that most prior studies have not examined the prevalence of PTSD symptoms in their samples.

Psychotic Disorders: Relatively few studies have examined base rates of psychotic disorders in the juvenile justice system. Rates typically have been higher than in the general population, ranging from 1% to 6% in the few studies employing comprehensive or random sampling methods.

Personality Disorders: Although typically not diagnosed before the age of 18, a few studies have reported base rates of personality disorders in juvenile

justice samples. These generally have been low (2%-17%), although rates as high as 46% have been reported. Most researchers typically have not differentiated between subtypes of personality disorders in these studies, which makes their findings difficult to interpret. However, some research has shown that antisocial, sociopathic, or psychopathic personality features appear to be associated with higher rates of recidivism in juvenile delinquents than in delinquents without these personality features (Ganzer & Sarason, 1972; McManus, Alessi, Grapentine, & Brickman, 1984).

Mental Retardation: Rates of mental retardation have been reported by the Institute on Mental Disability and the Law at the National Center for State Courts (1987) to be approximately 13%. Other studies have reported similar rates, ranging from 7% to 15%, depending on the specific intellectual tests employed and the exact diagnostic criteria used.

Learning Disabilities/Specific Developmental Disorders: The Institute on Mental Disability and the Law at the National Center for State Courts (1987) also reported that approximately 36% of children in the juvenile justice system meet diagnostic criteria for learning disabilities. Other studies have varied considerably, reporting prevalences ranging from 17% to 53%.

CLINICAL CONDITIONS

Child Abuse: Although the deleterious effects of child abuse and neglect on children's functioning have been clearly documented, only a few studies have addressed the prevalence of these experiences among youth in the juvenile justice system. Those few studies that have systematically examined rates of child abuse have been highly consistent, however, with rates ranging between 25% and 31%.

Suicidal Behavior: Although studies have varied regarding definitions of suicidal or self-injurious behavior, they typically have reported rates of previous suicide attempts ranging between 6% and 28%. Findings have usually been based on either self-report or information obtained from file reviews. Not surprisingly, these rates are significantly higher among delinquents with major affective disorders.

Prior Mental Health Treatment: Investigators examining rates of psychiatric hospitalization among children in the juvenile justice system generally have reported rates between 12% and 26%, although rates as

low as 3% also have been reported. Outpatient treatment appears to be much more common among youth involved in the juvenile justice system, with rates ranging between 38% and 66% in studies using random or comprehensive sampling procedures.

CONCLUSIONS

Although far from conclusive, a few general trends can be identified in the studies that have been conducted to date. First, these results clearly suggest that the prevalence of mental disorders in juvenile justice settings are considerably higher than in community samples of children and adolescents (Costello, 1989; Otto et al., 1992; Wierson et al., 1992), with conduct disorders being by far the most common diagnosis. Second, comorbidity appears to be relatively high, but has not been adequately assessed in the majority of studies. In particular, the reporting of only one psychiatric diagnosis by many investigators has probably led to underestimations of ADHD, PTSD, and affective disorders in juvenile justice populations. Third, paralleling what we know about adults, substance use and abuse appears to be a significant risk factor for delinquency and also seems to co-occur with other Axis I disorders at a rate much higher than in the general population. Finally, base rates of mental disorders can be significantly influenced by changing diagnostic criteria. As diagnostic criteria continue to evolve, it is likely that the prevalence of specific disorders will change as well.

The need for a multi-state epidemiological study of mental disorders among youth in the juvenile justice system has been pointed out previously by several authors (Hoagwood, 1994; Otto et al., 1992; Wierson et al., 1992). Despite the intrinsic difficulties of conducting such research, it remains necessary before any conclusive statements can be made regarding the prevalence of mental disorders in the juvenile justice system. The results of such a study would have significant implications regarding the screening, assessment, treatment, and disposition of these children.

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