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Profiles of Mental Disorder among Incarcerated Adolescent Females

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In recent years, the number of adolescent females sentenced to custody in the juvenile justice system has increased substantially, such that girls now comprise nearly one third of all juvenile arrests in the United States.[1] A striking fact about these incarcerated adolescent female offenders is that approximately 75% suffer from one or more psychiatric disorders.[2] In fact, rates of psychiatric disorder appear even higher among detained female youth than detained male youth,[3] suggesting that incarcerated adolescent females may be the most psychiatrically impaired population in today's juvenile justice system. To make matters worse, recent studies have shown that many incarcerated adolescent females have *more* than one psychiatric disorder—a phenomenon known as *comorbidity*,[4] which is associated with a more difficult treatment response and severe impairment in life activities compared to single disorders.[5] Thus, it is apparent that mental health problems among incarcerated adolescent females are both prevalent and severe, demanding attention from researchers, clinicians, and policymakers alike.

If left untreated, mental health problems among delinquent female youth may lead to a variety of poor outcomes, such as increased suicide risk, substance dependence, involvement in violent or unstable relationships, and parenting difficulties.[6] Moreover, each of these poor outcomes may ultimately serve to strengthen the intergenerational cycle of criminal behavior and psychiatric impairment. For example, intergenerational research has shown that mothers with histories of aggression are likely to experience enduring behavioral, social, and health problems and are more likely to use harsh and ineffective parenting strategies, all of which may be transmitted to offspring via parental modeling of these behaviors and the unwholesome effects of growing up in risky, unhealthy home environments such as those often concomitant with antisocial parenting.[7]

Despite the high-prevalence rates of mental disorder documented among incarcerated female youth, most of these young women are not receiving adequate mental health treatment,[8] perhaps because many juvenile justice facilities are unable to provide the staff and resources necessary to meet this treatment need. Finding a way for the juvenile justice system to meet the treatment needs of delinquent female youth is important given the system's legal and moral obligation to provide mental health services for adolescents in their charge (see Articles H.49, H.51, and H.53 of the *United Nations Rules for the Protection of Juveniles Deprived of their Liberty*)—an obligation that can be best met through empirically informed efforts at mental health screening and assessment and appropriate allocation of limited treatment resources.

What follows is a description and review of prevalence rates for some of the most frequently occurring disorders among adolescent female offenders: conduct disorder (CD), attention deficit hyperactivity disorder (ADHD), major depressive disorder (MDD), and generalized anxiety disorder (GAD). Prevalence rates from the Gender and Aggression Project—Virginia and Vancouver sites (described in the introduction of this special issue by Odgers, Moretti, & Reppucci) will also be presented. Next, we will discuss the ways in which these mental health problems may increase the risk for reoffending and suicidal behavior—two important markers of continued maladjustment. Finally, we provide evidence-based suggestions for mental health professionals and policymakers working to

Footnotes

1. Howard N. Synder & Melissa Sickmund, Juvenile offenders and victims: 2006 National Report (Off. Juv. Just. & Delinq. Prevention, U.S. Dep't. Just.) (2006), *available at* http://ojjdp.ncjrs.org/ojstatbb/nr2006/index.html.
2. Linda A. Teplin et al., *Psychiatric Disorders in Youth in Juvenile Detention*, 59 Arch. Gen. Psychiatry 1133 (2002).
3. Thomas Grisso, Double Jeopardy: Adolescent Offenders with Mental Disorders (2004); Elizabeth Cauffman, *A Statewide Screening of Mental Health Symptoms among Juvenile Offenders in Detention*, 43 J. Am. Acad. Child Adolescent Psychiatry 430 (2004); Dorothy L. Espelage, et al., *A Cluster-Analytic Investigation of MMPI Profiles of Serious Male and Female Juvenile Offenders*, 42 J. Am. Acad. Child Adolescent Psychiatry 770 (2003).
4. Karen M. Abram et al., *Comorbid Psychiatric Disorders in Youth in Juvenile Detention*, 60 Arch. Gen. Psychiatry 1097 (2003); Angela Dixon et al., *Psychopathology in Female Juvenile Offenders*, 45 J. Child Psychol. Psychiatry 1150 (2004); Dina D. Domalanta et al., *Prevalence of Depression and Other Psychiatric Disorders among Incarcerated Youths*, 42 J. Am. Acad. Child Adolescent Psychiatry 477 (2003); Thaddeus P. M. Ulzen & Hayley Hamilton, *The Nature and Characteristics of Psychiatric Comorbidity in Incarcerated Adolescents*, 43 Can. J. Psychiatry 57 (1998).
5. Rob V. Bijl & Anneloes Ravelli, *Psychiatric Morbidity, Service Use, and Need for Care in the General Population: Results of the Netherlands Mental Health Survey and Incidence Study*, 90 Am. J. Pub. Health 602 (2000).
6. Dorothy O. Lewis et al., *A Follow-Up of Female Delinquents—Maternal Contributions to the Perpetuation of Deviance*, 30 J. Am. Acad. Child Adolescent Psychiatry 197 (1991); Robert Vermeiren et al., *Mental Health Problems in Juvenile Justice Populations*, 15 Child Adolescent Psychiatry N. Am. 333 (2006).
7. Lisa Serbin & Jennifer Karp, *Intergenerational Studies of Parenting and the Transfer of Risk from Parent to Child*, 12 Curr. Dir. Psychol. 138 (2003).
8. Lewis et al., *supra* note 6; Vermeiren et al., *supra* note 6; Leslie Acoca, *Investigating in Girls: A 21st Century Strategy*, 6 Juv. Just. 3 (1999).

improve the lives of adolescent females who are struggling with mental disorders in juvenile justice contexts.

PSYCHIATRIC DISORDERS IN THE GENDER AND AGGRESSION PROJECT

High rates of psychiatric disorder have been found repeatedly among incarcerated adolescent females. Our study, the Gender and Aggression Project, was no exception—93.6% of the Virginia (VA) sample and 87.7% of the Vancouver, British Columbia (BC) sample met diagnostic criteria for at least one psychological disorder. Psychological disorders are often classified according to two types: externalizing, characterized by "outward" or external signs of psychopathology (such as hyperactivity/impulsivity and aggression, seen in ADHD and conduct disorder, respectively); and internalizing, characterized by "inward" or internal signs of psychopathology (such as depression or anxiety).

In this article, Part 1 of Mental Health Profiles and Outcomes, we focus on describing the characteristics and prevalence rates of the most commonly occurring disorders among incarcerated adolescent females in both externalizing and internalizing categories, the outcomes associated with these disorders, and how the juvenile justice system might best address the difficult assessment and treatment issues this population often presents. Part 2 of Mental Health Profiles and Outcomes (Obsuth, Watson, & Moretti) covers the prevalence rates of substance use, abuse, and dependence among adolescent offenders; the considerable overlap between these conditions, mental health problems, and crime; and the ways in which the juvenile justice system may best address these problems.

Externalizing Disorders

Conduct Disorder. Conduct disorder (CD) is defined as a persistent pattern of behavior in which age-appropriate societal norms and the rights of others are consistently violated, and is characterized by frequent involvement in a diverse array of antisocial activities. Given this description, it is perhaps unsurprising that the majority of adolescent female offenders meet diagnostic criteria for CD. Rates of CD among adolescent female offenders range from a low of 17% to a high of 96%,[9] with a recent meta-analysis providing an average estimate of 52.8%.[10] These rates are substantially higher than those documented for adolescent females in the general population, where prevalence rates range from 0.8% to 9.2%.[11] Rates of CD among girls in the Gender and Aggression Project were high. In the VA and BC samples, 86.9% and 67.7% met diagnostic criteria for CD, respectively.

High rates of psychiatric disorder have been found repeatedly among incarcerated adolescent females.

ADHD. ADHD is characterized by the display of developmentally inappropriate levels of inattention, hyperactivity, and impulsivity beginning in early childhood and across a variety of settings such as at home, at school or work, and with peers.[12] Recent research has shown that ADHD is *not* just a disorder of childhood; in fact, follow-up studies of children with ADHD have shown that the disorder persists into adolescence and adulthood in the majority of cases.[13] Furthermore, persistent ADHD has been shown to lead to a number of adverse outcomes in adolescence and young adulthood, including mental and physical health problems, poor academic performance, and substance use disorders.[14]

Prevalence rates of ADHD among incarcerated females are substantially higher than for adolescent females in the community, for whom rates of ADHD range from 1.1% to 6.7%.[15] Among incarcerated adolescent females, rates of ADHD range

9. Dixon et al. *supra* note 4; Niranjan S. Karnik et al., *Prevalence of and Gender Differences in Psychiatric Disorders among Juvenile Delinquents Incarcerated for Nine Months*, 60 PSYCHIATRY SERV. 838 (2009); Cindy S. Lederman et al., *Characteristics of Adolescent Females in Juvenile Detention*, 27 INT. J. L. & PSYCHIATRY 321 (2004); Angela A. Robertson et al., *Prevalence of Mental Illness and Substance Abuse Disorders among Incarcerated Juvenile Offenders in Mississippi*, 35 CHILD PSYCHIATRY & HUM. DEV. 55 (2004); Teplin et al., *supra* note 2; Jane Timmons-Mitchell et al., *Comparing the Mental Health Needs of Female and Male Incarcerated Juvenile Delinquents*, 15 BEHAV. SCI. & L. 195 (1997); Ulzen & Hamilton, *supra* note 4.
10. Seena Fazel et al., *Mental Disorders among Adolescents in Juvenile Detention and Correctional Facilities: A Systematic Review and Metaregression Analysis of 25 Surveys*, 47 J. AM. ACAD. CHILD ADOLESCENT PSYCHIATRY 1010 (2008).
11. Rolf Loeber et al., *Oppositional Defiant and Conduct Disorder: A Review of the Past 10 Years, Part I*, 39 AM. ACAD. CHILD ADOLESC. PSYCHIATRY 1468 (2000).
12. AM. PSYCHOLOG. ASS'N. (APA), THE DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS (4th ed. 2000).
13. Russell A. Barkley et al., *The Persistence of Attention-Deficit/Hyperactivity Disorder into Young Adulthood as a Function of Reporting Source and Definition of Disorder*, 111 J. ABNORMAL PSYCHOL. 279 (2002).
14. GABRIELLE WEISS & LILY T. HECHTMAN, HYPERACTIVE CHILDREN GROWN UP: ADHD IN CHILDREN, ADOLESCENTS, AND ADULTS (2nd ed. 1993); Russell A. Barkley et al., *Young Adult Outcome of Hyperactive Children: Adaptive Functioning in Major Life Activities*, 45 J. AM. ACAD. CHILD ADOLESCENT PSYCHIATRY 192 (2006); Stephen P. Hinshaw et al., *Prospective Follow-up of Girls with Attention-Deficit/Hyperactivity Disorder into Adolescence: Evidence for Continuing Cross-Domain Impairment*, 74 J. CONSULT. CLIN. PSYCHOL. 489 (2006); Salvatore Mannuzza & Rachel G. Klein, *Long-Term Prognosis in Attention-Deficit/Hyperactivity Disorder*, 9 CHILD ADOLESCENT PSYCHIATRY N. AM. 711 (2000).
15. E. Jane Costello et al., *Prevalence and Development of Psychiatric Disorders in Childhood and Adolescence*, 60 ARCH. GEN. PSYCHIATRY 837 (2003); Patricia Cohen et al., *An Epidemiologic-Study of Disorders in Late Childhood and Adolescence—1. Age-Specific and Gender-Specific Prevalence*, 34 J. CHILD PSYCHOL. PSYCHIATRY 851 (1993).

Rates of anxiety disorders are higher among incarcerated adolescent females than in the general population

from 13% to 68%[16] with a meta-analytic average estimate of 18.5%.[17] In the Gender and Aggression Project, 40.2% in the VA sample and 44.6% in the BC sample met past-year diagnostic criteria for ADHD. The higher-than-average rates of ADHD in these samples may be due to the higher-than-average rates observed for CD, as research has shown that ADHD and CD co-occur in between 30 and 50% of cases in both clinical and epidemiological samples.[18]

Internalizing Disorders

Major Depressive Disorder. Major depressive disorder (MDD) is characterized by the presence of one or more major depressive episodes, discrete time periods lasting two weeks or more during which the person experiences either a depressed mood or a loss of interest or pleasure from activities typically enjoyed in the past.[19] Other symptoms may include significant change in weight (either a loss or gain), increase or decrease in sleep, fatigue, and recurrent thoughts of death.[20] Estimates from large epidemiological studies suggest that 15.4% to 27% of youth report experiencing major depression by the end of adolescence,[21] and the World Health Organization (WHO) has declared MDD to be a leading cause of disability for Americans.[22]

Depression demands increased attention in the juvenile justice system given its predominance among females and its strong association with suicidal thoughts (aka ideation) and behavior,[23] an outcome that will be discussed in further detail later in this article. Despite MDD's high prevalence in the general population, incarcerated adolescent females nonetheless have strikingly *higher* rates of depression, with estimates ranging from 21.6% to 88%.[24] The rate of MDD among incarcerated adolescent females is also significantly higher than for adult females in correctional settings, where a 12% average prevalence rate has been documented.[25] Further, MDD is known to disproportionately affect females when compared to males—at a ratio of 2:1 in the general population[26] and 3:1 among adolescent offenders.[27]

Among girls in the Gender and Aggression Project, 24.5% of those in the VA sample and 32.3% of those in the BC sample met criteria for a current MDE. Rates of MDD in these samples were a bit lower, with 14.4% in VA and 12.2% in BC meeting criteria for current MDD. These rates, while somewhat lower than those reported in other incarcerated samples, nonetheless suggest that depression is a significant problem experienced by nearly 1 in 4 adolescent females in the juvenile justice system.

Generalized Anxiety Disorder. Anxiety disorders are characterized by an excessive amount of worry and apprehension that interferes with the person's ability to function effectively in everyday activities.[28] One of the most common anxiety disorders is generalized anxiety disorder (GAD), which is characterized by pervasive worry that is nonspecific, difficult to control, and occurs more days than not for a period of at least 6 months.[29] A recent nationwide study of adults found that 18.1% of adults in the United States met criteria for at least one anxiety disorder in the past 12 months.[30] Estimates for children and adolescents are somewhat lower but still significant, with prevalence rates ranging from 10% to 15%.[31]

As might be expected, rates of anxiety disorders are higher among incarcerated adolescent females than in the general population, with rates ranging from 12% to 59%.[32] Rates of GAD specifically range from 5% to 7% within this group.[33] GAD was prevalent among girls in the Gender and Aggression Project—13% of girls in the VA sample and 16.2% of those in the BC sample met criteria for GAD within the past six months. For 81% of those in the VA sample who met current diagnostic criteria for GAD, their symptoms began before age 13, indicating that the disorder preceded the experience of

16. Dixon et al. *supra* note 4; Niranjan S. Karnik et al., *supra* note 9; Lederman et al., *supra* note 9; Robertson et al., *supra* note 9; Teplin et al., *supra* note 2; Timmons-Mitchell et al., *supra* note 9; Ulzen & Hamilton, *supra* note 4.
17. Fazel et al., *supra* note 10.
18. Joseph Biederman et al., *Comorbidity of Attention-Deficit Hyperactivity Disorder with Conduct, Depressive, Anxiety, and Other Disorders*, 148 Am. J. Psychiatry 564 (1991).
19. APA, *supra* note 12.
20. *Id.*
21. Ronald C. Kessler et al., *Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication*, 62 Arch. Gen. Psychiatry 593 (2005); Laura P. Richardson et al., *A Longitudinal Evaluation of Adolescent Depression and Adult Obesity*, 157 Arch. Pediatr. Adolescent Med. 739 (2003).
22. World Health Organization (WHO), The World Health Report 2004: Changing History (Annex Table 3: Burden of Disease in DALYs by Cause, Sex, and Mortality Stratum in WHO Regions, Estimates for 2002) (2004).
23. Karen M. Abram et al., *Suicidal Ideation and Behaviors among Youths in Juvenile Detention*, 47 J. Am. Acad. Child Adolescent Psychiatry 291 (2008); Denise B. Kandel et al., *Suicidal Ideation in Adolescence—Depression, Substance Use, and Other Risk-Factors*, 20 J. Youth & Adolescence 289 (1991).
24. Dixon et al., *supra* note 4; Domalanta et al., *supra* note 4; Teplin et al., *supra* note 2; Timmons-Mitchell et al., *supra* note 9.
25. Seena Fazel & John Danesh, *Serious Mental Disorder in 23,000 Prisoners: A Systematic Review of 62 Surveys*, 359 Lancet 545 (2002).
26. APA, *supra* note 12.
27. Fazel et al., *supra* note 10.
28. APA, *supra* note 12.
29. *Id.*
30. Ronald C. Kessler & Philip S. Wang, *The Descriptive Epidemiology of Commonly Occurring Mental Disorders in the United States*, 29 Ann. Rev. Pub. Health 115 (2008).
31. Costello, *supra* note 15.
32. Domalanta et al., *supra* note 4; Lederman et al., *supra* note 9; Teplin et al., *supra* note 2.
33. Dixon et al. *supra* note 4.

incarceration for these girls. This finding suggests that GAD may be a *contributor* to problem behaviors in adolescent female offenders rather than a *result* of incarceration, and as such, warrants further study.

Comorbidity

Comorbidity is defined as the presence of two or more distinct psychiatric disorders in a single case.[34] Because individuals with comorbid psychopathology present multiple disorders at once, treatment planning for these individuals is much more difficult than for those who present a single disorder.[35] Comorbidity is now known to be the rule rather than the exception among children and adolescents in the general population. A large-scale meta-analysis found that if a child or adolescent reported meets criteria for one disorder (disorders included CD, ADHD, depression, and anxiety), he or she had from 3.0 to 10.7 times the odds of meeting criteria for another of these disorders versus those who had no disorders.[36]

Comorbidity is also high among detained adolescent females—a large epidemiological study that included 657 females ages 10-18 found that 56.5% met criteria for two or more disorders.[37] High rates of comorbidity were also observed among girls in the Gender and Aggression Project. In the VA sample, 66.0% met criteria for two or more disorders of the four disorders presented above (CD, ADHD, depression, and GAD); in the BC sample, this rate was 41.5%.

DO MENTAL HEALTH PROBLEMS PREDICT POOR OUTCOMES FOR INCARCERATED YOUTH?

The lives of incarcerated adolescent females are fraught with risk, both in and out of the correctional facility. Many adolescent offenders are rearrested soon after release,[38] and previous research has shown that profound and diverse impairments characterize the adulthoods of delinquent female youth, with one researcher describing these young women as "suicidal, alcoholic, drug addicted, enmeshed in violent relationships, and unable to care for their children" when they reach adulthood.[39] Research into the outcomes of psychiatric disorder among delinquent youth has shown that many of the disorders common in this population are associated with the outcomes that characterize delinquent youth after release, including recidivism, suicidality, substance use problems, hospitalization, and frequent use of psychiatric services.[40] Thus, it seems reasonable that mental health problems may play a role in the cycle of continued maladjustment and offending experienced by delinquent female youth.

Profound and diverse impairments characterize the adulthoods of delinquent female youth.

Among the many problems these youths face, three appear most salient for those working in juvenile justice contexts: recidivism, self-harming or suicidal behavior, and substance abuse, two of which are discussed in the following section (for an in-depth discussion of substance use problems among adolescent female offenders, see Obsuth & Moretti, this issue).

Recidivism

Recidivism as a term encompasses measured rates of rearrest, convictions, and adolescent self-reported offending after release from juvenile justice settings. Recidivism is a large problem among adolescent offenders, with follow-up studies showing that 55% of adolescent offenders are rearrested within one year.[41] Though the research is sparse, CD, ADHD, and substance use disorders have been linked to increased rates of reoffending after release from a correctional facility.[42] In contrast, one of these studies found that males with major depression were at a *reduced* risk for recidivism.[43] Similarly, among adolescent female offenders, the presence of depression has also been shown to be associated with a reduced risk for reoffending in 2-to-4.5-year follow-up periods.[44] Therefore, whereas externalizing conditions may be risk factors for recidivism, internalizing conditions may actually reduce the chances of official reoffending after release.[45] Considering the lack of research in this area, more study is needed to clarify the role that depression plays in the cycle of recidivism and continued offending among adolescent females.

Given that CD can be virtually universal among adolescent offenders, predicting whether a CD diagnosis increases the chances of recidivism among this population is often not practical. However, researchers and mental health professionals working with adolescent offenders have begun to consider whether other conditions, such as ADHD, may serve as markers of persistent offending among adolescent offenders with CD. Indeed, when ADHD is present in children and adolescents with CD, it is associated with an earlier onset, longer

34. Adrian Angold et al., *Comorbidity*, 40 J. Child Psychol. Psychiatry 57 (1999).
35. E. Jane Costello et al., *The Great Smoky Mountains Study of Youth—Goals, Design, Methods, and the Prevalence of DSM-Iii-R Disorders*, 53 Arch. Gen. Psychiatry 1129 (1996).
36. Angold et al., *supra* note 34.
37. Abram et al., *supra* note 4.
38. Snyder & Sickmund, *supra* note 1.
39. Lewis et al., *supra* note 6, at 197.
40. Vermeiren et al. *supra* note 6.
41. Snyder & Sickmund, *supra* note 1.
42. Richard Dembo et al., *Recidivism among High-Risk Youths—A 2-1/2-Year Follow-Up of a Cohort of Juvenile Detainees*, 26 Int'l. J. Addictions 1197 (1991); Richard Dembo et al., *Predictors of Recidivism to a Juvenile Assessment-Center*, 30 Int'l. J. Addictions 1425 (1995); Robert Vermeiren, et al., *Predicting Recidivism in Delinquent Adolescents from Psychological and Psychiatric Assessment*, 43 Comprehensive Psychiatry 142 (2002).
43. Vermeiren et al., *supra* note 42.
44. Hans Steiner et al., *Personality Traits in Juvenile Delinquents: Relation to Criminal Behavior and Recidivism*, 38 J. Am. Acad. Child Adolescent Psychiatry 256 (1999).
45. Robert Vermeiren, *Psychopathology and Delinquency in Adolescents: A Descriptive and Developmental Perspective*, 23 Clinical Psychol. Rev. 277 (2003).

Suicidality among incarcerated adolescent female offenders is alarmingly high.

duration, and higher severity of CD symptoms.[46] Moreover, the combination of ADHD and CD, more so than either disorder alone, has been shown to predict both a lower verbal IQ[47] and a higher risk for hard drug use and dependence,[48] factors that are known to predict recidivism among both adolescents and young adults.[49]

In light of these considerations, we tested whether ADHD predicted especially poor outcomes during the transition to adulthood for girls in the Gender Aggression Project—Virginia Site. In this sample where CD was virtually universal, ADHD increased in the odds of self-reported offending, mental health impairment, and continued psychopathology approximately two years after release. ADHD also uniquely predicted continued externalizing problems such as aggression and rule-breaking behavior in the transition to adulthood, suggesting that ADHD may play a role in the cycle of continued offending and mental health impairment among adolescent female offenders.

Suicidal or Self-Harming Behavior

The term "suicidality" encompasses a range of thoughts (referred to as "ideation") and behaviors involving deliberate attempts to injure or inflict death upon oneself. Suicidality among incarcerated adolescent female offenders is alarmingly high; across numerous studies, over 50% of the adolescent female offenders investigated reported more than one suicide attempt.[50] A recent study found that suicide rates among female prisoners in the United Kingdom were 20 times higher than in the general population; for female prisoners under 25 years of age, this ratio climbed to 40:1.[51] Research has also consistently shown that suicide rates are higher among adolescent female versus male offenders.[52] The risk for suicide may remain substantial for adolescent females even after release from the correctional facility, as research with recently released women ages 18-24 has shown that the risk for suicide remains elevated compared to women in the general population, especially during the first few weeks after release.[53]

Why are rates of suicidality so high among adolescent female offenders? First, delinquency itself is known to independently predict suicidal ideation and suicide attempts among adolescents in the general population, and the relationship between delinquency and suicidal ideation is particularly strong for females.[54] Second, depression and anxiety disorders are among the most salient predictors of suicidality in incarcerated adolescent populations,[55] and these conditions are often more prevalent among female versus male delinquents.[56] Third, the majority of females in incarcerated settings have experienced severe sexual, physical, or emotional abuse at some point in their lives,[57] factors known to be associated with suicidal and self-harming behavior among incarcerated adolescents.[58] Finally, some studies have also identified predictors of suicidality among incarcerated adolescents that appear specific to females, such as a diagnosis of post-traumatic stress disorder,[59] and impulsivity,[60] which document the unique contributions of these problems to suicidality among delinquent female youth. Together, these findings document the complex roles that mental health and family background factors may play in sustaining the high rates of suicidality among female offenders.

46. Benjamin B. Lahey et al., *Are Attention-Deficit/Hyperactivity Disorder and Oppositional Defiant Disorder Precursors to Conduct Disorder? in* HANDBOOK OF DEVELOPMENTAL PSYCHOPATHOLOGY 431 (A. J. Sameroff et al. eds., 2000).
47. Terrie E. Moffitt, *Juvenile-Delinquency and Attention Deficit Disorder—Boys' Developmental Trajectories from Age 3 to Age 15*, 61 CHILD DEV. 893 (1990).
48. Kate Flory et al., *Relation between Childhood Disruptive Behavior Disorders and Substance Use and Dependence Symptoms in Young Adulthood: Individuals with Symptoms of Attention-Deficit/Hyperactivity Disorder and Conduct Disorder Are Uniquely at Risk*, 17 PSYCHOL. ADDICTIVE BEHAV. 151 (2003).
49. James Bonta et al., *The Prediction of Criminal and Violent Recidivism among Mentally Disordered Offenders: A Meta-Analysis*, 123 PSYCHOL. BULL. 123 (1998); Cindy C. Cottle et al., *The Prediction of Criminal Recidivism in Juveniles: A Meta-Analysis*, 28 CRIM. JUST. BEHAV. 367 (2001); Vermeiren et al., *supra* note 42.
50. RESEARCH ADVISORY SERVICES, TABULATION OF A NATIONWIDE SURVEY OF FEMALE INMATES (Report prepared for Am. Correctional Ass'n Task Force on the Female Offender) (1988), *available at* http://www.ncjrs.gov/App/publications/Abstract.aspx?id=118785; Naomi E. Goldstein et al., *Comorbid Symptom Patterns in Female Juvenile Offenders*, 26 INT'L J. L. PSYCHIATRY 565 (2003).
51. Seena Fazel & Ram Benning, *Suicides in Female Prisoners in England and Wales, 1978-2004*, 194 BRIT. J. PSYCHIATRY 183 (2009).
52. A. O. Battle et al., *Potential for Suicide and Aggression in Delinquents in a Juvenile-Court in a Southern City*, 23 SUICIDE LIFE-THREATENING BEHAV. 230 (1993); Javad H. Kashani et al., *Depression among Incarcerated Delinquents*, 3 PSYCHIATRY RES. 185 (1980); Robert E. Morris et al., *Health Risk Behavioral Survey from 39 Juvenile Correctional Facilities in the United States*, 17 J. ADOLESCENT HEALTH 334 (1995); Paul Rohde et al., *Correlates of Suicidal Behavior in a Juvenile Detention Population*, 27 SUICIDE LIFE-THREATENING BEHAV. 164 (1997); Timmons-Mitchell et al., *supra* note 9.
53. Daniel Pratt et al., *Suicide in Recently Released Prisoners: A Population-Based Cohort Study*, 368 LANCET 119 (2006).
54. Martie P. Thompson et al., *Prospective Associations between Delinquency and Suicidal Behaviors in a Nationally Representative Sample*, 40 J. ADOLESCENT HEALTH 232 (2007).
55. Abram et al., *supra* note 23; Joseph V. Penn et al., *Suicide Attempts and Self-Mutilative Behavior in a Juvenile Correctional Facility*, 42 J. AM. ACAD. CHILD ADOLESCENT PSYCHIATRY 762 (2003).
56. Teplin, *supra* note 2; Fazel et al., *supra* note 10.
57. Dixon et al., *supra* note 4; Domalanta, *supra* note 4.
58. Dianna T. Kenny et al., *Risk Factors for Self-Harm and Suicide in Incarcerated Young Offenders: Implications for Policy and Practice*, 8 J. FORENSIC PSYCHOL. PRACT. 358 (2008).
59. Belinda Plattner et al., *Suicidality, Psychopathology, and Gender in Incarcerated Adolescents in Austria*, 68 J. CLINICAL PSYCHIATRY 1593 (2007).
60. Rohde et al., *supra* note 52.

HOW CAN THE JUVENILE JUSTICE SYSTEM BEST MEET THE MENTAL HEALTH NEEDS OF INCARCERATED GIRLS?

The above sections underscore an important point about adolescent females in the juvenile justice system: this group is not only a juvenile justice population but a mental health population as well—a fact which has profound implications for policymakers and mental health professionals working in juvenile justice settings. The high prevalence of these disorders and the myriad negative outcomes associated with them suggest a strong need for those working in the juvenile justice system to identify, treat, and support adolescent offenders with mental health problems as they negotiate the transition into adulthood, and ultimately, back into the community.

Experts in mental health and juvenile justice have made the following recommendations concerning how the juvenile justice system can best fulfill its custodial obligation to adolescent offenders with mental disorders. First, there is a need for continued efforts in the implementation and improvement of mental health, suicide, and violence risk screening for adolescent offenders.[61] Second, continued treatment and assessment efforts are necessary throughout an adolescent's stay in detention, as many mental health problems may not be readily apparent during early screening periods, such as suicidality and depression.[62] Third, it is important that aftercare programs offer not only supervision but facilitate mental health service acquisition.

Screening and Assessment

Mental health screening differs from mental health assessment in that screening often consists of brief (usually 10-15 minutes) symptom inventories that assess whether the adolescent is at high or low risk for self-harm, violence, or other psychiatric impairment, while mental health assessment refers to in-depth, individualized interviews or instruments that assess more specific psychiatric symptoms than mental health screening. Mental health screening is used to identify adolescents who may currently be suffering from a mental disorder and who may need emergency (but not long-term) treatment services. More detailed and comprehensive mental health assessments are used when mental health screens identify an adolescent who likely has a mental disorder, in order to confirm the disorder's presence and assist in treatment planning.

Mental health screening of incarcerated adolescents is an important first step in the processing of juvenile offenders, because it has the potential to facilitate wise allocation of limited mental-health treatment resources available in juvenile justice facilities. Recently, a number of brief, empirically informed screening instruments have been developed, which can be employed by staff with no prior clinical training,[63] thus enhancing the ability of existing staff in correctional settings to systematically screen for high-risk adolescents. Perhaps as a result, screening procedures have become the rule rather than the exception, which represents a welcome turnaround compared to the dearth of these procedures during the last decade.[64]

[The] valid assessment of mental health issues among adolescent female offenders is difficult.

Although mental-health-screening procedures are now widely used in juvenile justice settings, valid assessment of mental health issues among adolescent female offenders is difficult. First, there is very little research regarding the validity of screening and risk-assessment instruments with female offenders,[65] therefore it is unclear whether instruments informed by research with males will perform equally well with females. Second, since the adolescent is often the sole source of information, screening and assessment procedures that rely solely on adolescent self-report run the risk of under-identifying several conditions, most notably ADHD and suicidality.[66] In fact, one study reported that among 1,829 juvenile offenders, less than half of those with recent thoughts of suicide had told anyone about their ideation.[67] Third, although many screening procedures can be implemented by staff with no prior clinical training, clinical experts will be needed throughout the assessment stage, as well as in the treatment planning phase or ambiguous cases will be missed and treatment programs will likely be ineffective.

In order to enhance the ability of mental health professionals to accurately identify the mental health needs of adolescent female offenders, information from family members (especially parents) should be elicited whenever possible, as the inclusion of parent reports may enhance the validity of diagnostic classification for disorders characterized by disruptive and overt behaviors such as those that characterize ADHD.[68] In addition, research suggests that parent reports of adolescent mental health problems may enhance the validity of assessment with

61. Grisso, *supra* note 3; American Academy of Child and Adolescent Psychiatry (AACAP), *Practice Parameter for the Assessment and Treatment of Youth in Juvenile Detention and Correctional Facilities*, 44 J. Am. Acad. Child Adolescent Psychiatry 1085 (2005).
62. AACAP, *Practice Parameter for the Assessment and Treatment of Youth in Juvenile Detention and Correctional Facilities*.
63. Thomas Grisso & Lee A. Underwood, Screening and Assessing Mental Health and Substance Use Disorders among Youth in the Juvenile Justice System: A Resource Guide for Practitioners (Off. Juv. Just. & Delinq. Prevention, U.S. Dep't. Just.) (2004).
64. Kathleen Skowyra & Joseph J. Cocozza, *Introduction*, *in* Mental Health Screening within Juvenile Justice: The Next Frontier (n.d.).
65. Candice L. Odgers et al., *Examining the Science and Practice of Violence Risk Assessment with Female Adolescents*, 29 Law And Human Behavior 7 (2005).
66. Abram et al., *supra* note 23; Susan J. Ko et al., *Contribution of Parent Report to Voice DISC-IV Diagnosis among Incarcerated Youths*, 43 J. Am. Acad. Child Adolescent Psychiatry 868 (2004); Richard D. Todd et al., *Poor Utility of the Age of Onset Criterion for DSM-IV Attention Deficit/Hyperactivity Disorder: Recommendations for DSM-V and ICD-11*, 49 J. Child Psychol. Psychiatry 942 (2008).
67. Abram et al., *supra* note 23.
68. William E. Pelham et al., *Evidence-Based Assessment of Attention Deficit Hyperactivity Disorder in Children and Adolescents*, 34 Journal Clinical & Adolescent Psychol. 449 (2005).

[M]ore than one mental disorder... complicates treatment planning.

juvenile offenders.[69] However, many parents may be unavailable or even unwilling to provide such information during assessment periods. It will also be important for juvenile justice facilities to routinely observe and continually screen adolescent offenders in their care, as some problems may not be readily apparent during initial screening,[70] and adolescents have been called "moving targets" whose symptom profiles are likely to change between assessment periods due to developmental changes.[71] Similarly, suicide risk assessment should not only be a part of procedures in juvenile justice facilities but should continue in aftercare programs, as offenders' risk for suicide remains high even after release.[72]

Treatment

Many females in juvenile justice settings present with more than one mental disorder, a fact which complicates treatment planning significantly. For this reason, it will be necessary for juvenile justice facilities to keep clinically trained staff on hand who can identify treatment need (as not all adolescents who meet criteria for disorder will need long-term or immediate treatment), identify youths in need of emergency treatment, and develop individualized treatment plans, tailored to the needs of each specific case.[73] Clinicians will need to be diverse in their training, as many of the disorders present in juvenile justice settings are treated using a variety of methods, including psychiatric medication and individual therapy.[74]

Unfortunately, many facilities do not have adequate resources or staff to meet the treatment needs in their facilities,[75] and as a result, treatment within the juvenile justice system is often lacking, especially among females.[76] In fact, research shows that only one fifth of female detainees who needed services reported receiving them.[77] Addressing this treatment need will likely require intersystem collaboration between juvenile justice and community mental health systems. Psychiatric consultation services may be purchased from community facilities to assist in the difficult task of treatment planning, as not everyone who screens positive for a mental disorder will need treatment, and determining which cases warrant treatment requires considerable time and clinical expertise.[78] However it is accomplished, it is of prime importance that strong connections exist between juvenile justice facilities and community psychiatric services so that adolescents who require both emergency and long-term services can receive them in a timely and evenly sustained manner.[79]

Community Reentry and Aftercare

Many of the adolescents sentenced to custody in a juvenile facility will eventually be released back into the community. To maintain treatment gains achieved while in custody and thus facilitate a successful community transition, it is crucial that psychiatric services are maintained through aftercare programs after adolescents leave the juvenile facility. The period of community reentry may be an optimum time to facilitate the adolescent's connection with community treatment programs that have shown success in reducing recidivism, symptoms of psychological disorder, deviant peer-group association, and family conflict.[80] The Office of Juvenile Justice and Delinquency Prevention (OJJDP) advocates a highly structured model of aftercare known as the Intensive Aftercare Program Model (IAP),[81] which relies on a central case-management system providing supervision as well as service and treatment provision. The IAP model advocates continued risk assessment; individualized treatment planning that focuses on interventions addressing the problems of adolescent offenders at family, peer, and community levels; the use of systems of rewards and sanctions such as token economies as means of promoting program adherence; and establishing links with community agencies, resources, and organizations to facilitate community service delivery.

One program, GROWTH, is an aftercare program specifically for female offenders that uses the IAP model. Preliminary results support the effectiveness of the GROWTH program: of the 34 girls involved in GROWTH during 2001, none had recidivated, 97% had not become pregnant, and all (100%) were either in school, working, or working toward a GED.[82] These results, although preliminary, suggest the value of a highly structured aftercare program in maintaining treatment gains and establishing successful community reentry for previously incarcerated female youth.

Take-Home Messages

- Nearly 75% of detained adolescent females report one or more mental disorders, which may play a role in continued problems such as recidivism and suicidality.
- The co-occurrence of ADHD and CD may help identify who is most at risk for continued offending, while conditions

69. Ko, *supra* note 66.
70. Am. Acad. Child & Adolsecent Psychiatry (AACAP), *Practice Parameter for the Assessment and Treatment of Youth in Juvenile Detention and Correctional Facilities*, 44 J. AM. ACAD. CHILD ADOLESCENT PSYCHIATRY 1085 (2005).
71. GRISSO, *supra* note 3.
72. Daniel Pratt et al., *Suicide in Recently Released Prisoners: A Population-Based Cohort Study*, 368 LANCET 119 (2006).
73. AACAP, *supra* note 70; Dixon et al., *supra* note 4.
74. John R. Weisz & Peter S. Jensen, *Efficacy and Effectiveness of Child and Adolescent Psychotherapy and Psychopharmacology*, 1 MENTAL HEALTH SERVICES RES. 125 (1999).
75. Sue Bailey, *Editorial*, 23 J. ADOLESCENCE 237 (2000); Carol Kessler, *Need for Attention to Mental Health of Young Offenders*, 359 LANCET 1956 (2002).
76. Acoca, *supra* note 8; Vermeiren et al., *supra* note 6.
77. Domalanta et al., *supra* note 4; Teplin et al., *supra* note 2.
78. AACP, *supra* note 70; GRISSO, *supra* note 3.
79. AACAP, *supra* note 70.
80. Peter Greenwood, *Prevention and Intervention Programs for Juvenile Offenders*, 18 FUTURE CHILD. 185 (2008).
81. DAVID M. ALTSCHULER & TROY L. ARMSTRONG, INTENSIVE AFTERCARE FOR HIGH-RISK JUVENILES: A COMMUNITY CARE MODEL. SUMMARY (Off. Juv. Just. & Delinq. Prevention, U.S. Dep't. Just.).
82. STEVE V. GIES, AFTERCARE SERVICES (Off. JUV. JUST. & Delinq. Prevention, U.S. DEP'T. JUST.) (2003).

such as depression and anxiety, combined with the past experience of trauma and abuse, may identify which females are most at risk for suicidality and self-harm.
- Identification of mental disorders among adolescent female offenders would benefit from parental informants, continued screening throughout juvenile justice involvement, and continued research aimed at identifying gender-specific markers of risk.
- Clinically trained staff will be necessary in juvenile justice facilities to assist in treatment planning, continued monitoring and risk assessment, and treatment provision.
- Continued assessment, treatment, and community support, in addition to supervision, will be necessities in aftercare programs.

These steps would not only reduce the burden of mental illness within a highly affected population, but would hopefully reduce the all-too-heavy financial burden resulting from continued offending and mental health impairment for society at large.

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