



# National Institute of Justice

## Research Preview

Jeremy Travis, Director

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# Adolescent Girls: The Role of Depression in the Development of Delinquency

*Summary of research by Dawn A. Obeidallah and Felton J. Earls*

Over the past 60 years, social scientists have sought specific predictors of violent and antisocial behavior. Much of the research on criminal activity and delinquency, however, has been conducted on men and boys; far less scholarly attention has focused on understanding the development of such behavior in women and girls. This remains the case today, despite recent reports indicating the rate of increase in troubled adolescent girls' antisocial behavior surpasses that of boys.<sup>1</sup>

Researchers in the study of delinquency who assume the development of antisocial behavior in females is similar to that in males operate under a misconception, some scientists argue. Indeed, the handful of empirical studies that include findings on adolescent girls suggest that significantly different risk factors for delinquency exist between boys and girls.<sup>2</sup> One of the key interests in this research project is to describe integral factors in the development of antisocial behavior in adolescent girls.

The research described in this Research Preview is part of the Project on Human Development in Chicago Neighborhoods (PHDCN), an ongoing longitudinal study of precursors to antisocial behavior. (See "The Project on Human Development in Chicago Neighborhoods.") A central overarching aim of the project is to investigate the influence of individual, family, and neighborhood contexts on the development of criminality during adolescence. This specific project focuses on predictors of adolescent girls' antisocial behavior.

## The role of depression in delinquency

Because the forces that predispose adolescent females toward delinquency are believed to be different than those that predispose adolescent males, the research team investigated dimensions of risk specific to adolescent girls that may contribute to vulnerability. In particular, they considered how depression may predict antisocial behavior

among girls. During childhood, males' and females' rates of depression are similar and relatively low. Early adolescence marks a time when the rates clearly diverge, with a sharp rise in the onset of depression in girls.<sup>3</sup> The experience of depression during adolescence is hypothesized to be a central pathway through which girls' serious antisocial behavior develops for several reasons, which are described below.

Although alternative sequencing is possible (i.e., engagement in antisocial behavior precedes depressive symptoms), researchers hypothesize that depression may influence girls' propensity toward antisocial behavior. Key characteristics of depression include difficulty concentrating, loss of interest in previously enjoyed activities, hopelessness, feelings of worthlessness, and, at its extreme, suicidal thoughts and tendencies. There are three hypothetical ways these depressive feelings underlie girls' antisocial behavior:

- Depressive feelings may feed adolescent girls' indifference regarding their own personal safety and the consequences of their actions, increasing the likelihood they will gravitate toward delinquent activities. Many chronic, serious, female offenders may, in fact, have experienced depression during early adolescence.
- Depressed adolescents tend to be withdrawn, have limited interests, and suffer from low self-esteem. Previous research has shown such youth are at risk of being rejected by prosocial peers. Rejected youth, in turn, tend to cluster together with other rejected youth and form networks of deviant peers—a consistent predictor of delinquency.
- Some research suggests antisocial youth have weakened attachments to prosocial institutions. Because depression promotes a lack of interest and difficulty in concentrating, youth may withdraw from prosocial activities and institutions (e.g., schools, athletics), thus

## The Project on Human Development in Chicago Neighborhoods

The Project on Human Development in Chicago Neighborhoods brings together experts from many social science disciplines to examine crime in the context of community. It combines two studies into a single integrated research effort. The first is an intensive study of the social, economic, organizational, political, and cultural structure of Chicago's neighborhoods and the dynamic changes that occur in these places over time. The second is a series of longitudinal studies assessing the personal characteristics and changing circumstances of children, adolescents, and their primary caregivers. Researchers have surveyed nearly 9,000 residents of 343 Chicago neighborhood clusters, more than 2,800 key community leaders, and a sample of 6,000 children and adolescents (from birth to 18 years). The Chicago project goes beyond previous studies that have examined individuals and their communities—it also examines individuals in their communities.\*

The National Institute of Justice is conducting the study in partnership with the Harvard School of Public Health. The project is cofunded by the John D. and Catherine T. MacArthur Foundation; the National Institute of Mental Health; the Administration for Children, Youth and Families of the U.S. Department of Health and Human Services; and the U.S. Department of Education.

The research team includes Felton J. Earls, Principal Investigator and Director of the project, Harvard School of Public Health; Stephen L. Buka, Co-Principal Investigator, Harvard School of Public Health; Robert Sampson, Scientific Director for Community Design, University of Chicago; Stephen Raudenbush, Scientific Director for Analysis, Michigan State University; Jeanne Brooks-Gunn, Scientific Director for Longitudinal Design, Columbia Teacher's College; Maya Carlson, Policy Analyst, Harvard Medical School; and Daniel Kindlon, Research Associate, Harvard Medical School.

### Understanding community influences

The study's particular focus on the effects that community and neighborhood contexts have on individual behavior provides a better understanding of the role of changing social environments on human development. To date, researchers have amassed a wealth of information that reveals significant ways in which the social environment of a neighborhood shapes and determines behavior as well as identifies the developmental

pathways that lead individuals toward or away from a variety of antisocial behaviors. This knowledge will help practitioners and policymakers develop effective strategies for prevention, intervention, treatment, and rehabilitation, as well as sanctions.

As the project's researchers continue to explore how communities influence individual development, they also are addressing specific questions such as "What role is played by a community's economic opportunities?" and "How are residents affected by a range of social factors?" Another concept being explored is the "spheres of influence" or "nested contexts" theory that within the larger community are smaller influences that play important roles in human development. These influences range from social contexts, such as school and peer groups, to family relationships, to an individual's own health and temperament.

The research project on adolescent girls is part of the longitudinal study and was developed in response to the rapidly increasing rates of delinquency among young females. Researchers are examining the delinquent behaviors and depressive symptoms of 12- and 15-year-old girls with respect to individual, family, and neighborhood influences. Specifically, the study aims to disentangle neighborhood effects from individual and family factors using project data.

### Note

\*Sampson, R.J., and D.J. Bartusch, *Attitudes Toward Crime, Police, and the Law: Individual and Neighborhood Differences*, Research Preview, Washington, DC: U.S. Department of Justice, National Institute of Justice, 1999, FS 000240; Earls, F.J., *Linking Community Factors and Individual Development*, Research Preview, Washington, DC: U.S. Department of Justice, National Institute of Justice, 1998, FS 000230; Sampson, R.J., S. Raudenbush, and F.J. Earls, *Neighborhood Collective Efficacy—Does It Help Reduce Violence?* Research Preview, Washington, DC: U.S. Department of Justice, National Institute of Justice, 1998, FS 000203; Earls, F.J., and C. Visher, *Project on Human Development in Chicago Neighborhoods: A Research Update*, Research in Brief, Washington, DC: U.S. Department of Justice, National Institute of Justice, 1997, NCJ 163603; and Project on Human Development in Chicago Neighborhoods, *Assessing the Exposure of Urban Youth to Violence*, Research Preview, Washington, DC: U.S. Department of Justice, National Institute of Justice, 1996.

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attenuating their attachment to these institutions and increasing their likelihood of engaging in antisocial behaviors.

This pernicious mix could be dangerous for depressed adolescent girls. Understanding the role of depression in the development of girls' delinquency has clear implications for the formation of programs designed to prevent and treat serious delinquency in females.

Although this Preview focuses on depression, another specific risk factor for female delinquency is early pubertal maturation, which, in previous research, has been associated with the onset of both depression and antisocial behavior.<sup>4</sup> The findings of PHDCN's research, however, do not suggest a relationship between early pubertal development and antisocial behavior or aggression.

## Preliminary results from PHDCN

A relationship between depression and antisocial behavior has been documented; however, the majority of that work has focused on white girls in the middle to upper socioeconomic echelons. The PHDCN sample draws from an ethnically and socioeconomically diverse urban population, and, as such, the findings should have significance for a much wider segment of the youth population.

In the first wave of PHDCN's study, interviewers asked 12- and 15-year-old white, African-American, and Latina girls (n=754) about their level of involvement in antisocial behavior and their level of depressive symptomatology during the 12 months prior to the interview. Involvement in antisocial behavior was measured using the Self-Report of Offending. The Youth Self-Report (YSR) was used to determine girls' levels of depressive symptomatology.<sup>5</sup>

Among 12-year-old girls, the following were found:

- Twenty-five percent of whites, 33 percent of African-Americans, and 27 percent of Latinas reported committing at least one property crime.
- Twenty-three percent of whites, 47 percent of African-Americans, and 19 percent of Latinas reported committing at least one crime against another person.

The level of involvement in property crimes and crimes against other persons was greater across the board among 15-year-old girls:

- Sixty percent of whites, 55 percent of African-Americans, and 54 percent of Latinas reported committing at least one property crime.
- Forty-nine percent of whites, 70 percent of African-Americans, and 50 percent of Latinas reported committing at least one crime against another person.

With respect to relatively serious levels of aggressive behaviors, 9 percent of white, 19 percent of African-

American, and 4 percent of Latina 12-year-olds scored in a range above the clinical threshold for antisocial behavior as stipulated in YSR. Among 15-year-old girls, 13 percent of whites, 22 percent of African-Americans, and 24 percent of Latinas scored above the clinical threshold for antisocial behavior. Race and ethnic differences also were found, suggesting that while African-American girls engaged in the highest number of crimes against other persons in both age groups, 15-year-old white girls engaged in the highest number of property crimes.

## The relationship between clinical depression and antisocial behavior

In the next set of analyses, researchers compared antisocial behavior of girls who were mildly to moderately depressed with those who were not depressed. They found the following:

- Although 40 percent of nondepressed girls engaged in property crimes, 68 percent of girls who were mildly to moderately depressed did so. Furthermore, 42 percent of girls who were not depressed engaged in crimes against other persons, compared with 82 percent of mildly to moderately depressed girls.
- Fifty-seven percent of mildly to moderately depressed girls engaged in higher levels of aggressive behavior, compared with only 13 percent of those who were not depressed.

Even controlling for socioeconomic status, mildly to moderately depressed girls were more likely to commit property crimes and crimes against other people than their nondepressed counterparts. There were also no racial or ethnic differences with respect to mild to moderate depression. From this, researchers can hypothesize that racial and ethnic differences in antisocial behavior do not reflect variations in depression by race and ethnicity.

Overall, these preliminary findings suggest mildly to moderately depressed girls may be at risk of engaging in antisocial behavior. Treating depression may have a twofold benefit: undermining the development and maintenance of antisocial behavior as well as reducing depression. Future PHDCN endeavors will include examining potential intervening links between depressive symptoms and antisocial behavior, such as association with deviant peers, substance use, poor academic achievement, and conflicted parent-child relationships.

## Future investigations

Given the importance of depressive phenomena, additional detailed information is being gathered in the second wave of the study, which will permit researchers to make psychiatric diagnoses of depression and suicidal behavior. Plans are currently under way to explore critical precursors

of adolescent girls' antisocial behavior and depression based on the second wave of PHDCN.

Specifically, researchers will investigate how early depression relates to subsequent antisocial behavior, how certain characteristics of families and neighborhoods predispose some girls to delinquency, how changes in levels of family violence during adolescence predict girls' antisocial behavior, and how substance abuse plays a role in depression and antisocial behavior. Further, the second wave of data collection will obtain information regarding lifetime exposure to stress and traumatic events (e.g., sexual assault, abuse). Analyzing such information will facilitate understanding of the context in which girls' depressive symptoms and antisocial behavior emerge.

## Notes

1. Snyder, H.N., *Juvenile Arrests 1996*, Juvenile Justice Bulletin, Washington, DC: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, 1997, NCJ 167578.
2. Wangby, M., L.R. Bergman, and D. Magnusson, "Development of Adjustment Problems in Girls: What Syndromes Emerge," *Child Development* 70 (1999): 678–699.
3. Although depression is associated with delinquency in boys, it is thought to be a stronger predictor of delinquency in girls. Kovacs, M., "Presentation and Course of Major Depressive Disorder During Childhood and Later Years of the Life Span," *Journal of the American Academy of Child and Adolescent Psychiatry* 35 (1996): 705–715. Also see Renouf, A.G., and S. Harter, "Low Self-Worth and Anger as Components of the Depressive Experience in Young Adolescents," *Development and Psychopathology* 2 (1990): 293–310.

4. Brooks-Gunn, J., J.A. Graber, and R.L. Paikoff, "Studying Links Between Hormones and Negative Affect: Models and Measures," *Journal of Research on Adolescence* 4 (1994): 469–486. Also see Stattin, H., and D. Magnusson, *Pubertal Maturation in Female Development*, Hillsdale, NJ: Lawrence Erlbaum Associates, 1990.

5. See Earls, F., and Reiss, A., *PHDCN Version of the Self-Report of Offending Scale*, unpublished manuscript; and Achenbach, T.M., *Manual for the Youth Self-Report*, Burlington, VT: University of Vermont, Department of Psychiatry, 1991.

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