

Summer 2006

Bridging the gap between research and public policy to improve the lives of children and families

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RESEARCHERS NOTE:

Youth examined in this brief are part of the Rochester Youth Development Study, a longitudinal study designed to investigate the causes and correlates of juvenile delinquency, violence, and drug use among a high-risk sample of 7th and 8th graders from Rochester, New York. See Thornberry, Bjerregaard, and Miles (1993) and Krohn and Thornberry (1999) for a more detailed description of the sampling procedures utilized by the Rochester Study.

Gender Differences in Adult Outcomes for Youth with Co-occurring Problems of Crime and Depressive Symptoms

By Rebekah Chu

An astonishing 70 percent of youth in the juvenile justice system have a diagnosable mental disorder,¹ with one in five of them experiencing a serious mental disorder.² Research from the past decade indicates that behavioral and mental health problems among youth that occur at the same time are strongly related, and are present at rates higher than would be expected by chance. High levels of these problems could put youth at risk for new or continued problems later in life. Adult adjustment difficulties for youth who experience single problems have been well-established in research. Although it is logical to expect that adult problems resulting from co-occurrence would be even more severe, there are few empirical studies to support this contention. We know relatively little about the consequences of co-occurring behaviors or whether outcomes in adulthood are more detrimental for youth with multiple problems compared to youth with single problems.

This brief examines a variety of outcomes over the course of one year for young adults (average age of 21) who as youth (average age of 16) had high involvement in crime (e.g., vandalism, theft and assault) and frequent symptoms of depression.³ This brief also compares outcomes among youth who either:

- engage in high levels of crime,
- experience frequent symptoms of depression, or
- engage in high crime **and** experience frequent depressive symptoms.

Findings indicate different outcomes for boys and girls and suggest important considerations for prevention and intervention efforts. Implications for policy include increased interagency collaborations between juvenile justice and mental health agencies as well as early screening and assessments for youth to prevent the development of more severe problems.

Prevalence of Co-occurring Crime and Depressive Symptoms

Among youth with high levels of crime or depressive symptoms, about 20 percent of boys and 24 percent of girls report high levels of both problems. This prevalence estimate is high but close to estimates reported in similar empirical studies.⁴

Youth with frequent criminal activity AND depressive symptoms are more likely to use illicit drugs as adults than youth with either frequent crime OR depressive symptoms.

Drug Use

Boys and girls with co-occurring frequent crime and depressive symptoms have significantly higher illicit drug use at age 21, regardless of their early drug activity at age 16. As shown in Table 1, average drug use among co-occurring youth is much higher than that of youth who either engage in high levels of crime or experience frequent symptoms of depression. For example, the average number of times boys who have co-occurring problems use illegal drugs at age

21 (119.81) is nearly twice that of the average use of boys with high crime only (66.88) and almost four times that of boys with high depressive symptoms only (32.51).⁵

Table 1. Average Frequencies of Adult Drug Use and Crime and Total Number of Arrests by Adolescent Group.

	Boys			Girls		
	Crime and Depressive Symptoms	Crime Only	Depressive Symptoms Only	Crime and Depressive Symptoms	Crime Only	Depressive Symptoms Only
Drug Use (average for group)	119.81	66.88	32.51	64.28	31.68	.58
Crime (average for group)	152.18	59.38	45.35	54.75	58.26	.92
Arrests (total for group)	45.28	39.42	19.88	4.74	7.93	.00

Crime and Arrests

The average levels of adult crime among boys with co-occurring crime and depressive symptoms are about three times that of the boys in the other groups. However, girls in the co-occurring and high crime only groups have similar levels of criminal involvement in adulthood. This same pattern is also evident in boys' and girls' total number of arrests at age 21 (see Table 1).

Depressive Symptoms

Boys and girls whose frequent depressive symptoms co-occur with high crime are not at higher risk of continued symptoms in adulthood than youth with high depressive symptoms only. However, boys and girls in both of these groups experience more frequent depressive symptoms than youth in the high crime only group. This highlights the continuity of depressive symptoms from adolescence to adulthood, and stresses the need to treat high levels of these symptoms early.

Parenthood

The odds of boys with frequent criminal activity and depressive symptoms becoming fathers by age 21 are almost twice that of boys with only high crime and three and a half times that of boys with only frequent depressive symptoms. However, early levels of crime and/or depressive symptoms of girls do not increase risk for motherhood by age 21.

Public Assistance

Girls with co-occurring high crime and depressive symptoms are at increased risk of becoming public assistance recipients (e.g., financial assistance such as child care subsidy, SSI, Medicaid, food stamps, and housing assistance) as adults. For girls with these problems, the odds of receiving public assistance at age 21 are almost six times as large as that of girls with only high crime and nine and a half times that of girls who only have high depressive symptoms. Boys with co-occurring problems are not more likely than single problem boys to receive public assistance at age 21.

The likelihood of co-occurring boys becoming fathers by age 21 are nearly twice that of boys with high crime only, and almost four times that of boys with high depressive symptoms only.

The likelihood of co-occurring girls receiving public assistance at age 21 are nearly six times that of girls with high crime only, and almost ten times that of girls with high depressive symptoms only.

Conclusions

- Boys and girls with co-occurring frequent criminal activity and depressive symptoms at age 16 are at higher risk for illicit drug use at age 21 than youth who either engage in crime **or** experience frequent depressive symptoms.
- Boys with co-occurring problems are more likely to become fathers by age 21, and have more frequent criminal activity and arrests at age 21 than other boys.
- Girls with co-occurring problems are similar to girls with single problems, but are more likely to receive public assistance at age 21 than other girls.

Policy Implications

Several evidence-based programs have shown success in reducing mental health and behavioral problems among youth. Although not specifically designed to treat co-occurring problems, cognitive behavioral programs such as Multi-Systemic Therapy and Functional Family Therapy are interventions that have been shown to:

- reduce psychiatric symptoms,
- reduce long-term re-arrest rates,
- improve family functioning, and
- improve school performance.

Many of the successful, evidence-based intervention programs include professional services from multiple settings (e.g., family, school, neighborhood), which not only make the program more effective, but also more expensive to implement. A less expensive alternative might include short-term curricula introduced into classrooms that promote positive goal-setting and self promotion skills for youth. These programs have shown some success in reducing risky behaviors,⁶ although they are not well-tested.

This study indicates that boys with co-occurring problems comprise a distinct group and were significantly different from boys with single problems. This suggests that when the goal is to promote the healthiest, long-term adjustment for youth, intervention programs which focus on only one problem behavior may not be effective for boys who experience multiple problem behaviors. For boys, intervention programs that include services in multiple arenas are likely the most beneficial. In contrast, girls with single or co-occurring problems tend to be equally likely to experience adult adjustment difficulties, particularly

For more information on co-occurring behavioral and mental health problems, visit www.ncmhjj.com

For more information on evidence-based, multi-systemic programs, visit www.colorado.edu/cspv/blueprints

the high crime only and co-occurring girls. It appears that programs designed to treat one problem behavior would be just as effective for girls who also have multiple problem behaviors. This is not to suggest that treatment of the co-occurring behavior during adolescence should be ignored, but rather highlights the possible cost-effectiveness in being able to reduce the long-term consequences of co-occurring problems among girls by implementing less expensive programs that primarily focus on single problems.

The implications of the current study point to the need for early detection and treatment of extreme levels of crime and depressive symptoms to prevent continuity throughout the life course. Problem behaviors that are not identified and addressed early can also lead to problems in adulthood that span multiple domains. Of particular concern is the increased risk of illicit drug use in adulthood among youth with co-occurring problems, irrespective of their drug use in adolescence.

A national report by the United States General Accounting Office indicates that nearly 13,000 children were placed into child welfare or juvenile justice systems in 2001 in order to access mental health treatment. This is likely an underestimate nationwide.⁷ Furthermore, many youth in the juvenile justice system are placed for relatively minor offenses and it is unclear what proportion of these youth subsequently develops mental health problems while in the system.

Early detection of problem behaviors is critical in order to prevent greater problems from developing later in life. Findings from current research suggest possible strategies to address these issues including increased interagency collaborations on the community, state, and national levels to improve access to services and establishing screening and assessments to identify youth with extreme levels of problems early in life. ■

ENDNOTES

¹ Otto, Greenstein, and Friedman (1992); Wierson, Forehand, and Frame (1992).

² Cocozza and Skowrya (2000).

³ Youth with high crime and/or frequent depressive symptoms exhibit levels of these problems at or above the 75th percentile in relation to all other youth.

⁴ See Capaldi (1991) and Miller-Johnson, Lochman, Coie, Terry, and Hyman (1998).

⁵ This extends previous work from the Center for Child and Family Policy that found that North Carolina youth with co-occurring problems at Grade 6 (approximate age 11-12) had higher levels of substance use at Grade 8 than single problem youth, but by Grade 10 levels of substance use among co-occurring and conduct problem only youth were about equal (see Miller-Johnson et al., 1998).

⁶ Clark et al. (2005); Krumholz et al. (2005).

⁷ US GAO (2003).

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