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## **Risk Factors for Delinquency: An Overview**

**by Michael Shader<sup>1</sup>**

The juvenile justice field has spent much time and energy attempting to understand the causes of delinquency. Different theoretical models describe the relationship between variables and outcomes. Researchers have concluded that there is no single path to delinquency and note that the presence of several risk factors often increases a youth's chance of offending. Studies also point to the interaction of risk factors, the multiplicative effect when several risk factors are present, and how certain protective factors may work to offset risk factors.

In recent years, the juvenile justice field has adopted an approach from the public health arena in an attempt to understand the causes of delinquency and work toward its prevention (Farrington, 2000; Moore, 1995). For example, the medical community's efforts to prevent cancer and heart disease have successfully targeted risk factors (Farrington, 2000). To evaluate a patient's risk of suffering a heart attack, a doctor commonly asks for the patient's medical history, family history, diet, weight, and exercise level because each of

these variables has an effect on the patient's cardiac health. After this risk assessment, the doctor may suggest ways for the patient to reduce his or her risk factors. Similarly, if a youth possesses certain risk factors, research indicates that these factors will increase his or her chance of becoming a delinquent. A risk assessment may aid in determining the type of intervention that will best suit the youth's needs and decrease his or her risk of offending. Farrington (2000) calls this recent movement toward the public health model the "risk factor paradigm," the basic idea of which is to "identify the key risk factors for offending and tool prevention methods designed to counteract them" (Farrington, 2000:1).

Although much of the research on risk factors that youth face has focused on predicting serious and violent offenses, risk factors are relevant to all levels of delinquency. This article defines risk factors, explains why they are important, and briefly discusses some of the major risk factors linked to delinquency and violence.

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## What Is a Risk Factor?

Risk factors have been broadly defined as “those characteristics, variables, or hazards that, if present for a given individual, make it more likely that this individual, rather than someone selected from the general population, will develop a disorder” (Mrazek and Haggerty, 1994:127). Kazdin and colleagues (1997) note that a risk factor predicts an increased probability of later offending. A recent report from the U.S. Surgeon General more specifically defines a risk factor as “anything that increases the probability that a person will suffer harm” (Office of the Surgeon General, 2001 (chapter 4)).

Psychologists Coie and colleagues (1993) noted the following regarding risk factors:<sup>2</sup>

- Dysfunction has a complicated relationship with risk factors; rarely is one risk factor associated with a particular disorder.
- The impact of risk factors may vary with the developmental state of the individual.
- Exposure to multiple risk factors has a cumulative effect.
- Many disorders share fundamental risk factors.

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<sup>2</sup> Similar conclusions could be drawn in the juvenile justice field regarding delinquent behavior.

### Four Steps of the Risk Factor Approach

Mercy and O’Carroll (1998) summarize the four steps of the public health approach to decisionmaking as follows:

- Public health surveillance (i.e., developing and refining data systems for ongoing analysis and disseminating data).
- Risk group identification (i.e., identifying individuals at greatest risk of disease or injury and the places, times, and other circumstances associated with increased risk).
- Risk factor exploration (i.e., analytically exploring the potentially causative risk factors).
- Program implementation and evaluation (i.e., designing, implementing, and evaluating preventive measures based on an understanding of the population at risk and the community’s identified risk factors).

The criminal justice field adopted these steps for its risk factor approach. Criminologists compile statistics on the prevalence of crimes through the FBI’s *Uniform Crime Reports* and the Bureau of Justice Statistics’ National Crime Victimization Survey. They then apply the techniques of risk group identification to crime as they attempt to determine those at greatest risk of offending. Criminal justice researchers explore risk factors by applying theoretical models and statistical techniques to determine which risk factors are linked to crime. The criminal justice sector then works to develop, design, and implement programs that attempt to prevent offending. These programs are then evaluated to determine whether they are successful and cost effective.

Although researchers use risk factors to detect the likelihood of later offending, many youth with multiple risk factors never commit delinquent or violent acts. A risk factor may increase the probability of offending, but does not make offending a certainty.

### **What Is a Protective Factor?**

Research on risk factors for delinquency has prompted discussion and investigation into influences that may provide a buffer between the presence of risk factors and the onset of delinquency. These buffers are known as protective factors. Pollard, Hawkins, and Arthur (1999:146) note that “protective factors are those factors that mediate or moderate the effect of exposure to risk factors, resulting in reduced incidence of problem behavior.” Rutter (1987) believes that protective factors offset the onset of delinquency via four main processes: reducing risk, reducing negative chain reactions, establishing self-esteem and self-efficacy, and opening up opportunities.

Researchers disagree about what constitutes a protective factor. Protective factors “have been viewed both as the absence of risk and something conceptually distinct from it” (Office of the Surgeon General, 2001 (chapter 4)). The former view looks at risk and protective factors as opposite ends of a continuum. For example, excellent performance in school might be considered a protective factor because it is the opposite of poor performance in school—a known risk factor. The second view of protective factors sees them as “characteristics or conditions that interact with risk factors to reduce their influence on violent behavior” (Office of the Surgeon General, 2001 (chapter 4)). For example, poverty is often seen as a risk factor, but the presence of supportive, involved parents may mediate the negative influence of poverty to lessen a youth’s chance of becoming delinquent.

### **Why Study Risk Factors?**

Several juvenile justice researchers have linked risk factors to delinquency (Hawkins et al., 1998; Lipsey and Derzon, 1998), and many have also noted a multiplicative effect if several risk factors are present. Herrenkohl and colleagues (2000) report that a 10-year-old exposed to six or more

risk factors is 10 times as likely to commit a violent act by age 18 as a 10-year-old exposed to only one risk factor.

Similarly, the age range or developmental period during which a youth is exposed to a specific risk factor is important to individuals working to tailor prevention programs to specific factors. *Youth Violence: A Report of the Surgeon General* (2001 (chapter 4)) elaborates:

Violence prevention and intervention efforts hinge on identifying risk and protective factors and determining when in the course of development they emerge. To be effective, such efforts must be appropriate to a youth’s stage of development. A program that is effective in childhood may be ineffective in adolescence and vice versa. Moreover, the risk and protective factors targeted by violence prevention may be different from those targeted by intervention programs which are designed to prevent the recurrence of violence.

The study of risk factors, therefore, is critical to the enhancement of prevention programs that frequently have limited staffing and funding. Identifying which risk factors may cause delinquency for particular sets of youth at specific stages of their development may help programs target their efforts in a more efficient and cost-effective manner. The table on page 4, which was adapted from a report by the Office of the Surgeon General, categorizes risk factors by age of onset of delinquency and identifies corresponding protective factors.

<b>Risk and Protective Factors, by Domain</b>			
<b>Risk Factor</b>			
<b>Domain</b>	<b>Early Onset (ages 6–11)</b>	<b>Late Onset (ages 12–14)</b>	<b>Protective Factor*</b>
Individual	General offenses Substance use Being male Aggression** Hyperactivity Problem (antisocial) behavior Exposure to television violence Medical, physical problems Low IQ Antisocial attitudes, beliefs Dishonesty**	General offenses Restlessness Difficulty concentrating** Risk taking Aggression** Being male Physical violence Antisocial attitudes, beliefs Crimes against persons Problem (antisocial) behavior Low IQ Substance use	Intolerant attitude toward deviance High IQ Being female Positive social orientation Perceived sanctions for transgressions
Family	Low socioeconomic status/poverty Antisocial parents Poor parent-child relationship Harsh, lax, or inconsistent discipline Broken home Separation from parents Other conditions Abusive parents Neglect	Poor parent-child relationship Harsh or lax discipline Poor monitoring, supervision Low parental involvement Antisocial parents Broken home Low socioeconomic status/poverty Abusive parents Family conflict**	Warm, supportive relationships with parents or other adults Parents' positive evaluation of peers Parental monitoring
School	Poor attitude, performance	Poor attitude, performance Academic failure	Commitment to school Recognition for involvement in conventional activities
Peer group	Weak social ties Antisocial peers	Weak social ties Antisocial, delinquent peers Gang membership	Friends who engage in conventional behavior
Community		Neighborhood crime, drugs Neighborhood disorganization	
<p>* Age of onset not known. ** Males only.</p> <p>Source: Adapted from Office of the Surgeon General, 2001.</p>			

## **Description of Risk Factors**

Various researchers categorize risk factors in different ways. For the purposes of this article, risk factors fall under three broad categories: individual, social, and community. Each of these categories includes several subcategories (e.g., family- and peer-related risk factors are grouped under the social category). Because an exhaustive review of all known risk factors linked to delinquency is beyond the scope of this article,<sup>3</sup> the following summarizes the major risk factors associated with juvenile delinquency and violence.

### **Individual-Level Factors**

**Prenatal and perinatal factors.** Several studies have linked prenatal and perinatal complications with later delinquent or criminal behavior (Kandel et al., 1989; Kandel and Mednick, 1991; Raine, Brennan, and Mednick, 1994). Prenatal and perinatal complications can lead to a range of health problems that negatively influence development (McCord, Widom, and Crowell, 2001). In a prospective study of youth at high risk for delinquency, Kandel and Mednick (1991) found that 80 percent of violent offenders rated high in delivery complications compared with 47 percent of nonoffenders.

However, some of the evidence regarding the association between pregnancy and delivery complications and delinquency has been conflicting (Hawkins et al., 1998). For example, neither Denno's (1990) study of Philadelphia youth nor Farrington's (1997) Cambridge study found a connection between pregnancy and delivery complications and violence. Mednick and Kandel (1988) linked pregnancy and delivery complications to violent behavior, but not to nonviolent criminal behavior. In addition, some studies have shown that children whose mothers smoked cigarettes frequently during pregnancy were more likely to display conduct disorders and other problem behaviors (Fergusson, Horwood, and Lynskey, 1993; Wakschlag et al., 1997). Although the results are inconsistent, the available data illustrate the need to study further the relationship between prenatal care, delivery complications, and the resulting health problems and juvenile delinquency (Hawkins et al., 1998).

**Psychological, behavioral, and mental characteristics.** Several individual-specific characteristics are linked to delinquency. Tremblay and LeMarquand (2001:141) remarked that "the best social behavior characteristic to predict delinquent behavior before age 13 appears to be aggression." In addition, Hawkins and colleagues (1998:113) reviewed several studies and reported "a

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<sup>3</sup> For a complete review of risk factors, see chapter 3 in *Juvenile Crime, Juvenile Justice* (McCord, Widom, and Crowell, 2001).

positive relationship between hyperactivity, concentration or attention problems, impulsivity and risk taking and later violent behavior.” Low verbal IQ and delayed language development have both been linked to delinquency; these links remain even after controlling for race and class (Moffitt, Lynam, and Silva, 1994; Seguin et al., 1995). Similarly, problems at school can lead to delinquency. Herrenkohl and colleagues (2001:223) noted that “children with low academic performance, low commitment to school, and low educational aspirations during the elementary and middle school grades are at higher risk for child delinquency than are other children.”

## **Social Factors**

**Family structure.** Family characteristics such as poor parenting skills, family size, home discord, child maltreatment, and antisocial parents are risk factors linked to juvenile delinquency (Derzon and Lipsey, 2000; Wasserman and Seracini, 2001). McCord’s (1979) study of 250 boys found that among boys at age 10, the strongest predictors of later convictions for violent offenses (up to age 45) were poor parental supervision, parental conflict, and parental aggression, including harsh, punitive discipline. Some research has linked being raised in a single-parent family with increased delinquency (McCord, Widom, and Crowell, 2001); however, when researchers control for socioeconomic conditions, these differences are minimized

(Austin, 1978; Crockett, Eggebeen, and Hawkins, 1993). Some research has shown that children from families with four or more children have an increased chance of offending (Wasserman and Seracini, 2001; West and Farrington, 1973).

**Peer influences.** Several studies have found a consistent relationship between involvement in a delinquent peer group and delinquent behavior. Lipsey and Derzon (1998) noted that for youth ages 12–14, a key predictor variable for delinquency is the presence of antisocial peers. According to McCord and colleagues (2001:80), “Factors such as peer delinquent behavior, peer approval of delinquent behavior, attachment or allegiance to peers, time spent with peers, and peer pressure for deviance have all been associated with adolescent antisocial behavior.” Conversely, Elliot (1994) reported that spending time with peers who disapprove of delinquent behavior may curb later violence. The influence of peers and their acceptance of delinquent behavior is significant, and this relationship is magnified when youth have little interaction with their parents (Steinberg, 1987).

## **Community Factors**

Farrington (2000:5) noted that “only in the 1990’s have the longitudinal researchers begun to pay sufficient attention to neighborhood and community factors, and there is still a great need for them to

investigate immediate situational influences on offending.” As described below, the environment in which youth are reared can influence the likelihood of delinquency.

**School policies.** The National Research Council and the Institute of Medicine reviewed the impact of school policies concerning grade retention,<sup>4</sup> suspension and expulsion, and school tracking of juvenile delinquency. These organizations reported that such policies, which disproportionately affect minorities, have negative consequences for at-risk youth (McCord, Widom, and Crowell, 2001). For example, suspension and expulsion do not appear to reduce undesirable behavior, and both are linked to increased delinquent behavior. In addition, Heal’s (1978) cross-sectional study of primary and secondary schools in England found that large schools with formal and severe punishment structures in place had more incidents of students misbehaving.

**Neighborhood.** Existing research points to a powerful connection between residing in an adverse environment and participating in criminal acts (McCord, Widom, and Crowell, 2001). Sociological theories of deviance hypothesize that “disorganized neighborhoods have weak social control networks; that weak social control, resulting from isolation among residents and high

residential turnover, allows criminal activity to go unmonitored” (Herrenkohl et al., 2001:221).

Although researchers debate the interaction between environmental and personal factors, most agree that “living in a neighborhood where there are high levels of poverty and crime increases the risk of involvement in serious crime for all children growing up there” (McCord, Widom, and Crowell, 2001:89).

## **Conclusion**

The risk factor paradigm is a promising approach to understanding the problem of juvenile delinquency. The Program of Research on the Causes and Correlates of Delinquency, partially funded by OJJDP, is one example of a longitudinal study of youth that is helping to detect the importance of various risk factors for delinquency. Future research should continue to study the interrelationships between risk factors and delinquency and attempt to clarify how risk factors interact to create a cumulative effect. Similarly, researchers should continue studying the interaction between risk and protective factors and exploring why some youth exposed to multiple risk factors do not commit delinquent acts.

The development of the risk factor model, however, has its problems. Farrington (2000:16) remarks that “the main problems lie in the definition and identification of risk and protective factors, in

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<sup>4</sup> Grade retention occurs when teachers hold students back a grade level at the end of the school year.

establishing what are causes, in choosing interventions based on identified risk and protective factors, in evaluating multiple component and area-based interventions, and in assessing the effectiveness and cost-effectiveness of components of interventions.”

One question confronting those who would develop delinquency prevention programs based on risk factor research is whether a given risk factor can easily be changed. For example, research has shown that low socioeconomic status is associated with increased levels of delinquency. Although socioeconomic conditions may be hard to change, programs may seek to increase certain protective factors to offset the risk. Other risk factors are more amenable to change. Poor parenting, for example, can be addressed by programs that teach parenting skills and provide family support services.

The prevention of delinquency is a complex problem with no simple solutions. Risk factor analysis offers a way to determine which youth are most likely to become delinquent. The approach also allows practitioners to tailor prevention programs to the unique needs of individual youth and communities.

## References

- Austin, R.L. 1978. Race, father absence and female delinquency. *Criminology* 15(4):487–504.
- Coie, J.D., Watt, N.F., West, S.G., Hawkins, D., Asarnow, J.R., Markman, H.J., Ramey, S.L., Shure, M.B., and Long, B. 1993. The science of prevention: A conceptual framework and some directions for a national research program. *American Psychologist* 48(10):1013–1022.
- Crockett, L.J., Eggebeen, D.J., and Hawkins, A.J. 1993. Father’s presence and young children’s behavioral and cognitive adjustment. *Journal of Family Issues* 14(3):355–377.
- Denno, D.W. 1990. *Biology and Violence: From Birth to Adulthood*. Cambridge, UK: Cambridge University Press.
- Derzon, J.H., and Lipsey, M.W. 2000. The correspondence of family features with problem, aggressive, criminal and violent behavior. Unpublished manuscript. Nashville, TN: Institute for Public Policy Studies, Vanderbilt University.
- Elliott, D.S. 1994. Serious violent offenders: Onset, developmental course, and termination—The American Society of Criminology 1993 presidential address. *Criminology* 32(1):1–21.

Farrington, D.P. 1997. Early prediction of violent and non-violent youthful offending. *European Journal on Criminal Policy and Research* 5(2):51–66.

Farrington, D.P. 2000. Explaining and preventing crime: The globalization of knowledge—The American Society of Criminology 1999 presidential address. *Criminology* 38(1):1–24.

Fergusson, D.M., Horwood, L.J., and Lynskey, M.T. 1993. Maternal smoking before and after pregnancy: Effects on behavioral outcomes in middle childhood. *Pediatrics* 92(6):815–822.

Hawkins, J.D., Herrenkohl, T.L., Farrington, D.P., Brewer, D., Catalano, R.F., and Harachi, T.W. 1998. A review of predictors of youth violence. In *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions*, edited by R. Loeber and D.P. Farrington. Thousand Oaks, CA: Sage Publications, pp. 106–146.

Heal, K. 1978. Misbehavior among school children: The roles of the school in strategies for prevention. *Policy and Politics* 6:321–332.

Herrenkohl, T.L., Hawkins, J.D., Chung, I., Hill, K.G., and Battin-Pearson, S. 2001. School and community risk factors and interventions. In *Child Delinquents: Development, Intervention, and Service Needs*, edited by R. Loeber and D.P.

Farrington. Thousand Oaks, CA: Sage Publications, pp. 211–246.

Herrenkohl, T.L., Maguin, E., Hill, K.G., Hawkins, J.D., Abbott, R.D., and Catalano, R.F. 2000. Developmental risk factors for youth violence. *Journal of Adolescent Health* 26(7):176–186.

Kandel, E., Brennan, P.A., Mednick, S.A., and Michelson, N.M. 1989. Minor psychological anomalies and recidivistic adult violent criminal behavior. *Acta Psychiatrica Scandinavia* 79:103–107.

Kandel, E., and Mednick, S.A. 1991. Perinatal complications predict violent offending. *Criminology* 29(3):519–529.

Kazdin, A.E., Kraemer, H.C., Kessler, R.C., Kupfer, D.J., and Offord, D.R. 1997. Contributions of risk factor research to developmental psychopathology. *Clinical Psychology Review* 17:375–406.

Lipsey, M.W., and Derzon, J.H. 1998. Predictors of violent or serious delinquency in adolescence and early adulthood: A synthesis of longitudinal research. In *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions*, edited by R. Loeber and D.P. Farrington. Thousand Oaks, CA: Sage Publications, pp. 86–105.

McCord, J. 1979. Some child-rearing antecedents of criminal behavior in adult men. *Journal of*

*Personality and Social Psychology*  
37(9):1477–1486.

McCord, J., Widom, C.S., and Crowell, N.A., eds. 2001. *Juvenile Crime, Juvenile Justice. Panel on Juvenile Crime: Prevention, Treatment, and Control*. Washington, DC: National Academy Press.

Mednick, S.A., and Kandel, E.S. 1988. Congenital determinants of violence. *Bulletin of the American Academy of Psychiatry and the Law* 16(2):101–109.

Mercy, J.A., and O'Carroll, P.W. 1998. New directions in violence prevention: The public health arena. *Violence and Victims* 3(4):285–301.

Moffitt, T.E., Lynam, D., and Silva, P.A. 1994. Neuropsychological tests predict persistent male delinquency. *Criminology* 32(2):101–124.

Moore, M.H. 1995. Public health and criminal justice approaches to prevention. In *Building a Safer Society: Strategic Approaches to Crime Prevention*, edited by M. Tonry and D. Farrington. Chicago, IL: University of Chicago Press.

Mrazek, P.J., and Haggerty, R.J., eds. 1994. *Reducing Risks for Mental Disorders: Frontiers for Preventative Intervention Research*. Washington, DC: National Academy Press.

Office of the Surgeon General. 2001. *Youth Violence: A Report of the Surgeon General*. Washington, DC: U.S. Department of Health and Human Services, Office of the Secretary, Office of Public Health and Science, Office of the Surgeon General. Retrieved from [www.surgeongeneral.gov/library/youthviolence](http://www.surgeongeneral.gov/library/youthviolence).

Pollard, J.A., Hawkins, D., and Arthur, M.W. 1999. Risk and protective factors: Are both necessary to understand diverse behavioral outcomes in adolescence? *Social Work Research* 23(3):145–158.

Raine, A., Brennan, P., and Mednick, S.A. 1994. Birth complications combined with early maternal rejection at age 1 year predispose to violent crime at age 18 years. *Archives of General Psychiatry* 53:544–549.

Rutter, M. 1987. Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry* 57(3):316–331.

Seguin, J.R., Pihl, R.O., Harden, P.W., Tremblay, R.E., and Boulrice, B. 1995. Cognitive and neuropsychological characteristics of psychically aggressive boys. *Journal of Abnormal Psychology* 104(4):614–624.

Steinberg, L. 1987. Single parents, stepparents, and the susceptibility of adolescents to antisocial peer pressure. *Child Development* 58(1):269–275.

Tremblay, R.E., and LeMarquand, D. 2001. Individual risk and protective factors. In *Child Delinquents: Development, Intervention, and Service Needs*, edited by R. Loeber and D.P. Farrington. Thousand Oaks, CA: Sage Publications, pp. 137–164.

Wakschlag, L.S., Lahey, B.B., Loeber, R., Green, S.M., Gordon, R.A., and Leventhal, B.L. 1997. Maternal smoking during pregnancy and the risk of conduct disorder in boys. *Archives of General Psychiatry* 54(7):670–676.

Wasserman, G.A., and Seracini, A.G. 2001. Family risk factors and interventions. In *Child Delinquents: Development, Intervention, and Service Needs*, edited by R. Loeber and D.P. Farrington. Thousand Oaks, CA: Sage Publications, pp. 165–189.

West, D.J., and Farrington, D.P. 1973. *Who Becomes Delinquent?* London, England: Heinemann.