

Juvenile Delinquency

Prevention, Assessment, and Intervention

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Risk Assessment in Juvenile Justice Policy and Practice

The assessment of risk is a central feature of juvenile justice, both for broad policy and for daily practice. At the policy level, a form of risk assessment is implicit in the definitions of the types of adolescents who qualify for particular forms of processing (e.g., as adults or juveniles) or different sanctions or interventions. Defining categories of adolescents for special processing is part of the "wholesale exclusion" strategy for administering juvenile justice (Fagan & Zimring, 2000). In addition, probation officers, judges, and clinicians make risk assessments regarding the adolescents appearing before them every day. These professionals regularly face the tough question of whether having a particular juvenile in the community will significantly endanger others and whether this adolescent has the potential to change positively. Thus, risk assessment is part of the "retail" administration of juvenile justice as well. The challenge is to sort cases, use resources effectively, and reduce risk to the community.

This chapter reviews some of the assumptions about risk assessment that underpin certain juvenile justice policies and practices. It addresses three places where risk assessment plays a central role. First, it provides an overview of policy about transfer to the adult court and how risk assessment notions are built into these statutes. Next, it briefly reviews how risk assessment has been systematized by developing actuarial instruments, highlighting the conditions under which these instruments operate well. Finally, it examines how risk assessment fits into the discretionary judgments made by juvenile court professionals and clinicians on a daily basis. The chapter ends by proposing three points about risk assessment in general that might help to improve policy and practice regarding juveniles specifically.

Transfer Statutes: Risk Assessment in Legal Categories

Juvenile justice policy creates categories of offenders who are treated differently, mainly because they either deserve more retributive punishment or are more

likely to benefit from individualized, treatment-oriented interventions. Mandated higher punishments for certain groups of adolescent offenders are justified on several grounds (not all of which are equally sound; see Feld, 2000). Increased and surer punishments are seen as (a) exacting more retribution, thus highlighting societal values; (b) providing a clear deterrent both for that adolescent and others; and (c) achieving some reduction in crime by incapacitating serious offenders, keeping them away from opportunities for crime in the community. Juveniles who are processed with more discretion and access to treatment resources are those who have not had an adequate investment of rehabilitation resources to date or who may be particularly prone to positive change (e.g., less serious, first-time offenders).

Recent changes in transfer statutes (those governing the movement of juvenile offenders into the adult court system) provide perhaps the most dramatic recent example of an effort to integrate risk assessment into juvenile law (Heilbrun, Leheny, Thomas, & Huneycutt, 1997). Over the past decade or so, nearly all states have adopted legislation that allows younger youth who have committed a wider range of offenses to be transferred to the adult system, and many statutes require automatic processing in the adult system. Juvenile court judges have less ability to retain cases in their court, and prosecutors have more discretion in determining which cases get transferred (Griffin, 1998).

As mentioned above, three rationales—retribution, deterrence, and selective incapacitation—have supported the recent expansion of transfer statutes. The appropriateness of retribution as a rationale for increasing juvenile punishments is based largely on values regarding the need for society to exact proportional punishments and the appropriateness of doing this with individuals who are not yet fully adult. The reasonableness of deterrence as a rationale for increasing juvenile punishments rests mainly on beliefs about the susceptibility of adolescents to specific and general deterrence, and there is limited empirical information to guide this determination (e.g., see Paternoster, 1989; Redding, 2000; Schneider & Ervin, 1990). The rationale of selective incapacitation rests mainly on the ability of the statutory guidelines to institute a valid risk assessment strategy.

Selective incapacitation is the idea of identifying repetitive, serious offenders and giving them longer sentences so that these individuals have less opportunity to commit offenses during their most crime-prone years. Simply put, incarcerating the most active and serious criminals should lower the overall crime rate. The most basic requirement of any incapacitation approach is to find those who are "likely to commit more crimes of the same sort or other crimes of other sorts" (Packer, 1968, p. 49).

One obvious limiting factor of this approach is the accuracy of the identification procedure. As the performance of the method for identifying individuals for incarceration deteriorates (i.e., the identified sample has a significantly higher proportion of "false-positive" cases), the efficiency of such an approach to achieve selective incapacitation diminishes. Too many of the wrong people will be locked up.

The seemingly simple calculus of selective incapacitation is not easy to

accomplish, however, and many question whether it can ever be an effective approach to reducing crime. One gets very different estimates of the potential impact of selective incapacitation, depending on the assumptions made about rates of offending behaviors, the types of crimes committed by high rate offenders at different points in their criminal careers, and the proportion of high rate offenders in the criminal population (Blumstein, Cohen, Roth, & Visser, 1986). This problem becomes even more difficult when only juvenile criminal careers are considered, since there are often less clear patterns of offending, given the shorter series of events. Nonetheless, the basic idea of finding high rate offenders and keeping them off the street is certainly a lynchpin of the utilitarian case for changes in transfer statutes.

Most automatic transfer statutes make eligibility for transfer contingent upon the age of the adolescent and the type of crime committed. The adolescent must be above a certain minimum age and charged with a sufficiently serious offense. The obvious question is how well these criteria might perform for the straight utilitarian goal of incapacitation—how well they work as a risk assessment instrument.

Based on longitudinal research, age can be expected to perform rather poorly as an initial screening factor when used this way. Age at first arrest is a powerful predictor of continued offending, but the relationship is such that earlier onset of offending indicates markedly increased risk (Piquero, Farrington, & Blumstein, 2003). Limiting the age range to midadolescence (e.g., 14) produces a sample with a confusing mix of "adolescent-limited" and chronic offenders (Broidy et al., 2003). From a strictly utilitarian viewpoint, it seems that younger, repetitive offenders (age 12 or 13) should receive the most stringent sentences (in terms of either incapacitation or intensive supervision), since the likelihood of reoffending is high in this group. Looking at policy more broadly, however, it is clear that such an approach introduces possible iatrogenic effects of intervention and overreaching by the state into family matters. It also has limited general utility because these younger adolescents are a relatively small (but possibly growing; see Snyder, 1998) part of the whole adolescent offender population.

The choice of presenting offense also does little to identify a particularly crime-prone subsample of youth. There is little indication of specialization in juvenile criminal offending, with adolescents who are involved in one type of crime often involved with a variety of other offenses in their early careers (Farrington, Snyder, & Finnegan, 1988; Klein, 1984). There is also limited evidence that severity of presenting offense alone consistently predicts likelihood of future serious offending (Tolan & Gorman-Smith, 1998). There is a demonstrated relationship between frequency of violent and nonviolent offending, and thus adolescents with multiple serious offenses against persons do appear to be at increased risk for continued involvement in this type of behavior (Brame, Mulvey, & Piquero, 2001). The use of a single offense as a criterion for automatic transfer, however, chooses a sample with a sizable proportion of adolescents with a relatively low chance of repeating that crime or a large number of other crimes. The expansion of the category of eligible offenses that has occurred under newer statutes accentuates this problem.

As noted by other commentators (e.g., Redding, 1997, 2000; Scott & Grisso, 1997), the use of age and a broad set of presenting offenses may not be the most effective way of identifying cases most likely to commit future crimes with any regularity. The use of history of offending as a criterion would probably be preferable. Consideration of frequency of offending, age at first arrest, and pattern of offenses could produce a more homogeneous pool of likely repeat offenders. Even more power could probably be obtained from integrating contextual factors related to the adolescent's offending into the case identification process. Knowing an adolescent's neighborhood, the type of family supervision provided, and whether the child has problems in other domains of his/her life (e.g., fights in school) would go a long way toward making a more accurate determination about the likelihood of future offending.

Consideration of these latter contextual factors, however, is probably not reasonable for broad policy purposes. Part of the problem with any strategy used to identify adolescents for transfer or any other selective punishment approach is that the factors considered must not extend beyond those readily ascertainable and related to the offense that brought the juvenile to the attention of the court because such efforts lead easily to discriminatory practices (Feld, 1999). In effect, these cases must be sorted categorically in a "decontextualized" fashion to ensure equal treatment under the law. The consideration of contextual factors such as these in an individualized system relying on the discretion of the judge may be appropriate, but their use as a way to create "classes" of individuals subject to different sanctions would seem questionable.

This example of transfer statutes attempting to operationalize risk assessment illustrates a broader point. Any statutory approach to identifying high-risk groups is inevitably vague and ineffectual for a number of reasons. Such reasons include (a) the legislative process requires language with imprecise interpretation, (b) professionals in human processing organizations accommodate to whatever statutory mandates require, and (c) the link between any socially acceptable method for identifying risk groups and antisocial behavior is bound to be rather weak and indirect. Identification of cases at high risk for antisocial behavior is a delicate enterprise, and the law by its nature is a blunt instrument. As a result, although based on a notion of risk assessment, statutory attempts to identify high-risk groups effectively almost inevitably fall far short of the rhetoric supporting them.

Actuarial Checklists: Risk Assessment in Practice Guidelines

Risk assessment is also built into policy in the form of regulations or guidelines for the placement of juvenile offenders *into* secure facilities or the release of juvenile offenders back into the community *from* secure facilities. Many locales have adopted structured instruments that professionals must use at particular decision points in juvenile justice processing, with scores on these instruments the main determining factor regarding incarceration or release (Guarino-Ghezzi & Loughran, 1997). Although not having the weight of statute, requirements to use

actuarial instruments to determine the reasonableness of holding or releasing a juvenile can effectively structure and limit the use of professional discretion. Much of the "business" of courts and social services is done according to guidelines set forth in policy and procedure manuals, with the categories and requirements set out in these documents accepted as the standard for good practice. Actuarial instruments for determining the risk of future offending have become a more commonplace aspect of these regulations and juvenile justice practice (Hoge & Andrews, 1996).

Risk assessment instruments used in juvenile justice are generally straightforward, actuarial checklists that add up points and set a cutoff value for either detaining or releasing a juvenile. These instruments usually collect information about a set of factors related to reoffending (e.g., number of prior arrests, presence of a drug problem) and then calculate a total risk score. The methods for combining information into a score are usually (a) a simple tally of endorsed items or a summation of weighted items indicating overall risk of reoffending or (b) a two-dimensional judgment grid placing a youth in the appropriate category of placement security (LeBlanc, 1998). The logic is rather simple: the more relevant risk factors are present, the more likely the juvenile is to reoffend, and therefore the more justification there is to hold that juvenile. Numerous locales across the United States have devised risk assessment instruments of this sort, based on a combination of local data about rearrest or re-institutionalization and local values regarding the acceptable level of community risk from juvenile crime (Wiebush, Baird, Krisberg, & Onck, 1995).

Despite their growing acceptance, there is only limited research on the accuracy and effectiveness of these instruments (LeBlanc, 1998; Wiebush et al., 1995). Relatively few locales have done successive validation and instrument improvement (for an exception, see Arizona; Krysik & LeCroy, 2002), and while methods for developing these instruments to meet local demands have been developed and applied (e.g., Baird, 1984, 1991), these are oftentimes seen as too costly and involved to implement. As a result, many locales adopt instruments from other jurisdictions without considering whether they are well suited to the risk factors and behaviors seen in their adolescent offenders (Wiebush et al., 1995). Some positive benefits might accrue from this strategy, but it is optimal when a locale uses its own data and a consensus process to develop instruments tailored to its juvenile justice system. There are also several aspects of risk assessment instruments and methods that increase the chances of this approach having a lasting, positive impact.

First, these instruments seem to be most useful when they use information that is readily obtainable, reliable, and interpretable (LeBlanc, 1998). Risk assessment forms are commonly filled out by line staff in institutions or by probation staff, not by highly credentialed professionals conducting an in-depth assessment. As a result, the types of judgments included in the instrument should be straightforward and require minimal inference. An item that asks for the number of prior arrests, for example, is preferable to an item that asks for a scaled judgment about the quality of the adolescent's relationship with his/her parents. The latter judgment would require information that would not be readily available

and would be open to idiosyncratic interpretations, both of which would reduce its ability to be collected reliably.

Second, risk assessment instruments are more successful when there is a method for overriding the actuarial determination made from the information supplied (Wiebush et al., 1995). Staff and professionals with an individual adolescent in front of them have to be given some latitude to respond to information not on the form. Actuarial determinations are useful for a variety of situations where categorization must be done consistently, but they can never replace a well-founded clinical conclusion. As noted by Meehl decades ago (Meehl, 1954), no actuarial instrument could possibly come to the conclusion that a person talking about a raven appearing repeatedly in their dreams is concerned about death; no instrument would program in the poetry of Edgar Allan Poe. Similarly, a very dangerous adolescent might not pose an immediate threat if his leg is broken, although it is unlikely that any risk assessment instrument would ask for an inventory of working limbs. When relevant considerations come up, professionals must be able to ignore actuarially based conclusions.

At the same time, allowing clinicians to override actuarial determinations at will defeats the purpose of these instruments. Limits must be set upon the number of times or the conditions that can produce such variations; the Office of Juvenile Justice and Delinquency Prevention (1995) recommends that no more than 15% of the decisions be exceptions. In addition, documentation of the reasons for ignoring the actuarial score should be required so that later reviews of the judgment process can be conducted.

Finally, to work effectively, risk assessment instruments must be tied explicitly to a particular point in the juvenile justice decision-making process. Risk assessment instruments are not generic; their performance may vary considerably when applied at different points in the system. The discriminative power of any actuarial screening device depends heavily on the distribution of the measured characteristics in the sample being assessed and the base rate of the predicted outcomes in that sample (Copas & Tarling, 1986). As a result, an actuarial instrument developed to assess the likelihood of an adolescent reoffending prior to a court appearance (for use at the point of detention) may not function well as a method for assessing risk of crime in the community after adjudication (if used at the point of disposition). The background characteristics of detained youth are different from those of adjudicated youth, the types and frequency of offending prior to court appearance are different from those seen after disposition, and the consequences of the assessment are different (short-term detention vs. longer-term institutional placement). In developing actuarial assessments for juvenile justice, one size does not fit all. To be effective, risk assessment instruments must be developed and validated with the requirements of a particular prediction task clearly in mind.

Several researchers have taken a broader approach to actuarial assessment, going beyond simply a consideration of how likely a juvenile might be to reoffend. These investigators (e.g., see Andrews & Bonta, 1995; Dembo et al., 1996; Hoge & Andrews, 1996; Wiebush et al., 1995) have integrated the assessment of need with that of risk for future offending. Rather than treating risk as a fixed

trait, this approach assumes that risk might be lowered by particular interventions or careful monitoring in the community. From this perspective, the task of systematic assessment is to consider not only what aspects of the adolescent's functioning appear to raise the risk of future offending, but also what might be done to reduce the risk of that outcome. The idea here is to acknowledge the malleable nature of adolescents and to identify pivotal aspects of their lives where efforts might be made for positive change. An adolescent with a drug or alcohol problem may be at higher risk for reoffending, but he/she may also be a good candidate for positive community adjustment if that problem can be addressed effectively. The attractive aspect of this risk/need assessment strategy is that it goes beyond the task of sorting adolescents into lower or higher risk groups and instead provides information about how to target interventions to reduce risk. This approach, therefore, raises the chances that an assessment might produce focused intervention rather than just a binary decision about the need for incarceration.

In general, risk assessment instruments for adolescent offenders hold considerable promise for systematizing decision making at several key junctures in the juvenile justice system. The empirical evidence for the value or robustness of these systems, however, is not overwhelming. As we have noted, there is little systematic research on the enduring validity of these instruments for predicting which adolescents might reoffend if left in or released to the community. Much of the value of these approaches, however, may lie in the fact that they are done at all, rather than in the exact specificities or sensitivities of their algorithms.¹

There are two broad ways that the implementation of actuarial risk assessments can improve decision making in juvenile justice. First, these instruments can simply increase the uniformity of decisions made at certain points in juvenile justice processing. The use of actuarial instruments certainly limits idiosyncratic decision making in a locale, reducing the likelihood of widely disparate outcomes in similarly situated cases. This is a valuable contribution in and of itself, since more consistent application of decision-making rules has been shown to increase overall accuracy even if the model used is less than optimal (Dawes, 1979; Gambrill & Schlonsky, 2000).

1. Work is currently being done to refine some potentially promising risk-needs tools. Three that are currently undergoing development or validation are the Youth Level of Service/Case Management Inventory (YLS/CMI; Hoge & Andrews, 2002), the Structured Assessment of Violence Risk in Youth (SAVRY; Borum, Bartel, & Forth, 2002), and the Washington State Juvenile Assessment (WAJA; Barnoski, 2002). The YLS/CMI may be purchased through Multi-Health Systems, 800-456-3003 (U.S.), 800-268-6011 (Canada), or 416-492-2627 (international). E-mail: customerservice@mhs.com. The SAVRY, Version 1, Consultation edition manual may be ordered from Randy Borum, Psy.D., SAVRY Order, Department of Mental Health Law and Policy, Louis de la Parte Florida Mental Health Institute, University of South Florida, 13301 Bruce B. Downs Boulevard, Tampa, FL 33612-3807. E-mail: SAVRYinfo@yahoo.com. The WAJA is not currently available for purchase. Neither the SAVRY nor the WAJA is currently ready for professional use; additional validation research and manual development should be completed on these instruments in the near future.

Second, introduction of these instruments can promote and maintain system improvement. The development of an actuarial decision-making system can often be done as part of a broadly based reformation of the juvenile justice system within a particular locale (see Anne E. Casey Foundation, *Juvenile Detention Alternatives Initiative*, 2004). The process of having invested stakeholders identify appropriate risk indicators and choose thresholds for particular actions (e.g., detention) can produce increased collaboration and a shared sense of mission among parties involved in the juvenile justice system. In this way, the development of actuarial tools and decision-making guidelines can serve as the content that pushes the positive collaborative process forward, with the ongoing monitoring and adjustment of the guidelines serving to keep these positive contacts alive. In this way, the careful introduction of actuarial risk assessments can be effective in addressing the continuing issue of disproportionate minority confinement (Schirali & Ziedenberg, 2002).

The Application of Professional Discretion: Risk Assessment in Daily Practice

Even though actuarial prediction strategies have and will become more sophisticated, they are not a panacea for assessing risk in adolescent offenders. Actuarial approaches can make the assessment process more routine and focused at particular points in juvenile justice processing, but professionals in this system will still confront the task of judiciously recommending certain interventions or sanctions based on a global assessment of the risk associated with the particular adolescent in front of them. Judges, probation officers, and social service practitioners will still face the task of assessing risk at a variety of decision points, one case at a time and with different amounts and types of information. Whether a case gets processed past intake, whether an adolescent gets referred to a community-based service or sent to a secure facility, or whether certain conditions of probation are imposed are all examples of decisions made by juvenile justice professionals that involve an assessment of the likelihood of future offending or violence.

These assessments may include the administration of a structured risk (or risk/need) instrument like those discussed above. Assessing risk of future offending or violence, however, is generally a more nuanced task than simply the administration of a checklist. Clinicians, social service providers, and court professionals must combine actuarial scores, background information, and impressions about the adolescent's functioning and social context to make specific recommendations regarding the most appropriate action (Grisso, 1998). This requires more than a tally of case characteristics; it instead requires a disciplined weaving together of relevant information about a real person with possibilities for growth and risks for harming other real people.

A professional making a clinical determination regarding risk of harm to others or the likelihood of future offending thus faces a formidable task. Information has to be collected systematically, sifted for validity, weighed carefully,

applied thoughtfully, and communicated clearly. The professional stakes for an error are often high, yet the amount of solid guidance for sound practice is rather limited.

The Inherent Difficulties of Assessing Adolescent Behaviors

There are numerous theories at any given time about the most important factors to consider and how to weigh different bits of information in making these assessments. For some time, the triad of bed-wetting, fire setting, and cruelty to animals was thought (mistakenly) to have high predictive value for predicting violence in adolescents (see Mulvey & Lidz, 1984). In current times, the concept of juvenile psychopathy is thought to effectively capture the essential features connected to future violence and reoffending. Whether this construct will stand the test of time as a focus for assessing risk in juvenile offenders seems still to be an open question (Edens, Skeem, Cruise, & Cauffman, 2001). Fads come and go about how to best assess future risk of violence and reoffending, and often the same wine appears in different bottles.

The identification of consistent and enduring indicators of risk for adolescents is an inherently difficult task for several reasons. First, history of behavior is one of our best predictors of future behavior, especially regarding violence and criminal offending, and this information is limited and ambiguous when assessing adolescents. There is simply less of an established pattern of behaviors upon which to base forecasts of future behavior. Furthermore, child and adolescent behavior is more likely to be influenced by context and therefore possibly less indicative of underlying consistencies of character. Children and adolescents have fewer opportunities to choose their everyday settings than do adults, and young people oftentimes display behaviors that indicate the fit between the child and the environment rather than aspects of the child or adolescent that will emerge consistently across settings (Masten & Coatsworth, 1998). A child who is a behavior problem in one school, for instance, may respond favorably to another school, and interpreting disruptive behavior in the first setting as indicative of an established disorder in the child or adolescent could often be a mistaken conclusion.

In addition, adolescents are by definition "works in progress," and making the link between observed behavior and crystallized personality traits is very difficult in this group. It is difficult to make precise determinations about the lines where developmental features stop and personality features begin, especially for the purposes of predicting future criminality (Steinberg & Scott, 2003). Impulsive acts, for example, may be the result of being immature rather than innately impulsive. Making a determination about whether an adolescent is more or less like a "typical" adolescent, therefore, is asking whether an individual can conceivably fit into a category with a wide variability of behaviors; the answer may be affirmative, but it might not tell us much. There is simply less confidence about classification of adolescents, since they are not yet fully formed.

Given this difficulty with achieving reliable characterizations, it is apparent

why predicting future behavior becomes difficult. The predictive validity of any classification scheme or dimensional approach is limited when we cannot be sure that we have the right adolescents in the right boxes or that we have them at the right set point on any scale in the first place. Limited reliability measuring risk indicators lowers the achievable predictive validity of any assessment, and we can expect difficulties getting accurate characterizations of adolescents from the outset.

Overcoming these inherent obstacles requires professionals to be especially thoughtful and integrative when assessing adolescents (Grisso, 1998; Melton, Petrila, Poythress, & Slobogin, 1997). It is particularly important, for example, to assess history as a series of incident reports rather than as a reported number of incidents. Prior violent or disruptive incidents indicate how the adolescent functions in certain settings and when confronted with particular challenges. Noting, in and of itself, that an adolescent has a history of aggressive behavior provides very limited information for assessing likelihood of future risk. Considering what precipitated prior aggressive acts, the targets of these acts, and how the child or adolescent responded to them provides much more useful information for considering what actions to take with the youth in the future. Similarly, simply assessing whether an adolescent exhibits seemingly risky behaviors, like a disregard for others or impulsivity, does not address the central question. A more useful task is to try to make a determination of whether these behaviors are congruent with the level of development seen in the adolescent being assessed, whether these might be expected to change over time or under certain influences, and whether or not these aspects of the adolescent's presentation can be convincingly linked to reoffending or future violence. Answering these more nuanced questions is a much more difficult task, but it seems necessary if the unique aspects of making risk assessments in adolescents are to be taken into account.

Guidance From Longitudinal Studies

Currently, we have a large amount of literature from longitudinal research about the factors related to adolescent criminality and violence (see Loeber & Farrington, 1998; Reppucci, Fried, & Schmidt, 2002; Thornberry & Krohn, 2003), and some of this has applicability to the task of assessing the likelihood of future reoffending or violence. Unfortunately, this literature is voluminous and rather overwhelming. The diversity of methods, the variety of samples, the differences in the case characteristics measured, and the range of possible outcomes all make it difficult to summarize this literature accurately. Identifying particular risk indicators that have emerged across several studies can provide a falsely reassuring sense that science has found the "magic bullets" for easily identifying adolescents with a very high likelihood of future offending or violence. The complexity of the studies in these areas, however, simply makes that impossible; the key to solid risk assessment does not rest with the discovery of some variable or combination of variables that has unsurpassed predictive validity for future outcomes. It instead rests on a systematic consideration of the most relevant broad forces that might increase or decrease the likelihood of future offending or violence.

Taken in this light, a few general findings from this literature can be useful for focusing the assessment process onto domains highlighted by longitudinal studies as valuable to consider (Cottle, Lee, & Heilbrun, 2001).

One basic finding from the longitudinal research is that many adolescents who exhibit serious antisocial behavior do not go on to continued antisocial behavior in adulthood. In fact, estimates are that probably less than half of serious adolescent offenders will continue their adult criminal career into their twenties (see Elliott, 1994; Piquero et al., 2001; Redding, 1997). This is important to consider when assessing risk of future offending or violence with juvenile offenders because it sets the implicit level of expected outcome for the behavior in question. If a professional believes that almost all serious adolescent offenders go on to serious adult crime, then making an assessment that any particular individual is less, rather than more, likely to continue offending requires that individual to be rather distinct from most of the offenders seen. In actuality, it seems that the opposite holds; in a broad sample of adolescent offenders, the presumption to be rebutted is that the adolescent *will* go on to extended criminal involvement.

In addition, the risk indicators identified in longitudinal research are more consistently powerful when predicting the next developmental period rather than long-term outcomes (Cicchetti & Cohen, 1995). As might be expected, risk indicators at one age are most applicable when figuring out what might happen to an adolescent during the next few years. Some indicators of risk, most notably aggression in multiple settings between the ages of 8 and 12 and the presence of a criminal father in males (Loeber, Farrington, Stouthamer-Loeber, Moffitt, & Caspi, 2001), are probably more powerfully related to violent criminality later in life than are other predictors. Nonetheless, the general observation that the power of any risk indicator decreases rather dramatically over time is worth noting because of its relevance to the clinical task of assessing future risk for court or social service actions.

Because risk indicators are generally most valid in the short run, it is important for professionals making risk assessments to be specific about the time frame under consideration and the outcome being predicted. Predictions about long-term outcomes are more likely to be erroneous, whereas focused conclusions about more immediate adjustment have a utility and soundness that can be readily defended. The number of potential intervening influences that can occur in an adolescent's life and the potentially powerful impact of these influences make assertions about long-term outcomes more speculative than scientific. Similarly, a general characterization of an adolescent as a likely repeat offender does little to guide the court's decision making or planning for intervention. Assessments that focus on the likely short-term outcomes of immediate alternatives are likely to be both more scientifically sound and useful.

A second general point emerging from longitudinal studies is that family influences exert a powerful effect on the onset and maintenance of antisocial behavior. Studies of high-risk cohorts (e.g., see Thornberry & Krohn, 2003) consistently identify family functioning as an important risk indicator for young males. The presence of antisocial parents (in particular, the father), poor parent-child relationships, and the presence of abuse/neglect have all been shown to

increase risk for future offending in young males (e.g., ages 6–12). In addition, harsh, lax, inconsistent discipline and poor parent-child relationships are relatively useful risk indicators for continued offending in adolescents from ages 12–14 (Satcher, 2001). The effect of family dynamics on offending in older adolescents is less pronounced, as association with antisocial peers becomes more important, but family functioning is still important to consider as something that sets the stage for involvement in a variety of risky behaviors (e.g., lack of parental controls can allow more frequent drug or alcohol use and more involvement in criminal activity). An added indication of the importance of considering family functioning comes from the fact that interventions targeted at stabilizing and clarifying family dynamics (e.g., multisystemic therapy, Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998; functional family therapy, Alexander et al., 1998) have demonstrated records of success at reducing future offending with delinquent adolescents. This would seem to indicate that family functioning is important not only etiologically, but also therapeutically.

A third general conclusion from the longitudinal research is that children who start committing serious offenses at a young age are probably qualitatively different from those adolescents who get in trouble initially at an older age. Age of onset of a criminal career has been shown consistently to be predictive of continued involvement in adult crime (Blumstein et al., 1986; Piquero et al., 2003). In addition, work on the trajectories of offending over adolescence and early adulthood indicate that there may be two oftentimes distinct groups of offenders, i.e., life course persistent and adolescent limited, who follow different patterns of offending over time and who may have different risk factors that precipitate their involvement in offending (Nagin, Farrington, & Moffitt, 1995). It is thought that the life-course-persistent offenders start younger and continue into adult crime because of factors related to their general cognitive and social deficits. Adolescent-limited offenders, on the other hand, engage in criminal activity during adolescence as part of their involvement with social groups that promote such behavior. This group is then presumed to desist from this behavior as their social and developmental demands shift in late adolescence.

A final conclusion that can be gleaned from longitudinal work is the importance of an adolescent's connections to his/her community and social world (Laub & Sampson, 2001). In assessing adolescents for the likelihood of future offending or violence, professionals often look for intrapsychic indicators of future problems. The primary task is often seen as determining how the constellation of traits or personal characteristics observed will dictate the level of future offending or violence. Based on the findings from longitudinal studies, however, considering the social contexts that an adolescent is likely to experience is probably as, or more, useful in assessing risk.

Any individual strengths or problems that an adolescent has operate in a social context, and these contexts interact with individual characteristics to shift the likelihood of a positive or negative outcome significantly. A long history of research has demonstrated the overall impact of neighborhood disorganization and lack of informal social control on aggregate rates of adolescent offending (Sampson, Raudenbush, & Earls, 1997; Shaw, 1929). Recent work has also shown

the effects of changes in neighborhood on patterns of offending in individual adolescents' lives, with movement to "better" neighborhoods increasing property offenses for a period, but decreasing violent crime over time (Ludwig, Duncan, & Hirschfield, 2001). In addition, low attachment and commitment to school (Cernkovich & Giordano, 2001), involvement with antisocial peers (Hawkins et al., 1998), and large amounts of unstructured time (Horney, Osgood, & Marshall, 1995) appear to increase the likelihood of continued antisocial activity. Gang involvement in particular has been shown to be a strong indicator of more frequent and more serious offending in adolescence (Thornberry, Krohn, Lizotte, & Chard-Wierschem, 1993).

The broad point is that one of the primary tasks of adolescence is "fitting in" as part of a social group and into a social role. Risk for future reoffending is thus intimately linked to where an adolescent decides to fit in over time and to the opportunities for antisocial activity in the settings encountered (Mulvey et al., 2004). To be complete, a risk assessment has to consider these factors as a major component of figuring out if, how, and why an adolescent might keep reoffending or being violent.

General Principles That Might Help Improve Risk Assessment

So far, I have reviewed three ways that risk assessment is implemented in the juvenile justice system. First, at the broad level of statutes, classes of juvenile offenders are created for differential processing and potentially greater punishments. Second, administrative guidelines regarding incarceration, release, or placement are established, using actuarial formulae based mainly on the presence of indicators related to continued offending. Finally, clinical and court professionals make individualized judgments about risk, combining information about the adolescent's characteristics and history and alternatives available to the court. Each of these activities derives from some implicit and explicit notions about the most appropriate and powerful factors to consider when assessing risk. I have reviewed the validity of some of the general ideas behind these approaches.

Improving these approaches to risk assessment presents new challenges, and it seems that these will require something beyond just a more comprehensive list of empirically validated risk indicators. Indeed, it could be argued that the influences that put an adolescent at higher risk for future offending or violence have been known for some time and that the general contours of what constitutes risk factors for adolescent offenders will change only marginally with increased research. Similar personal, family, peer, and community risk indicators have all been found repeatedly. Depending on what is put into the equation, the relative weights of different indicators shift, but the same factors keep emerging with about the same overall explanatory power in one research project after another. Expanding the content of the list of risk factors or the intricacy of the models about how they relate to each other is not likely to yield much in the way of improved risk assessment.

Broader conceptualizations of the ideas of risk and risk assessment might be needed to improve this practice in juvenile justice. Instead of trying to refine the methods for combining known risk indicators, we may have to think about alternative ways of structuring the basic task. Examining research across other areas of antisocial behavior as well as the broad trends in the research on adolescence can be helpful in this search for alternative models. This section outlines three potentially relevant issues.

Cumulative Risk Versus Specific Risk

Considerable research has shown concurrent associations between different antisocial behaviors in adolescence (Loeber, Farrington, Stouthamer-Loeber, & Van Kammen, 1998). Drinking, school problems, social adjustment problems, and self-reported delinquency regularly occur together. This consistent set of associations among antisocial behaviors has limited the ability of any one type of behavior to serve as a clear precursor of another sort of antisocial behavior. Although there are some general trends about the order of onset of certain antisocial behaviors (e.g., it is likely that an adolescent will shoplift before he/she will commit an armed robbery), antisocial behaviors are more mottled than clearly patterned across adolescence. This observation has prompted some researchers to think that the particular behaviors in question might best be investigated as a "constellation" of behaviors, rather than as distinct entities (Jessor, 1992).

Many antisocial behaviors also have the same types of risk indicators associated with them. The list of conditions or situations that increase risk for mental health problems, self-reported delinquency, or other antisocial behaviors overlap greatly. Living with parents who have a history of antisocial behavior themselves in a bad neighborhood, along with significant cognitive processing difficulties and early disruptive behavior, is one fairly common recipe producing a variety of troubling behaviors in adolescence, including criminal offending. Because of the many ways that risks and individual capacities can play out in an adolescent's life, there is little specificity between particular risk indicators and outcome behaviors. Having a particular risk indicator (or a particular combination of risk indicators) does not invariably produce a particular outcome behavior.

This simple regularity has a straightforward implication for structuring risk assessment and identification strategies. It makes the notion of focusing on children or adolescents with a few particular risk indicators as being at "high risk" for developing a particular later problem seem a bit myopic and inefficient. Since risk seems to play out in many ways in adolescent development, identifying adolescents with only one or two readily identifiable risk indicators will produce a pool of adolescents, some reasonably large proportion of whom will necessarily not be those at the highest likelihood for a negative outcome. Adolescent males without father figures, for example, are not all destined to have tumultuous teen years. The more the definition of risk is limited to a few indicators, the more likely it is to include adolescents who are not at high levels of overall risk.

Thinking about the total risk faced by a child or adolescent (i.e., the cumulative risk), rather than the particular form of that risk, may be most productive

for identifying groups for intervention. This approach can still be taken with a set of risk factors that are particularly powerful for some outcome (such as reoffending), but the idea is to avoid worrying about whether an adolescent has one of a small set of risk indicators. It is instead to determine how many of a given set of indicators an individual adolescent faces. Identifying those with the most overall risk is a generally sounder way to proceed than picking those who might fit a popularized stereotype of those adolescents destined to continue in criminal offending (e.g., adolescents who have school difficulties and problems at home).

Risk Markers Versus Risk Factors

The old adage that "correlation is not causation" is often forgotten in risk research with juvenile offenders and other populations. The co-occurrence of two events (say X and Y) can be the result of one event "causing" the other or the product of other processes affecting the likelihood of these events occurring together (either in time or in the same types of cases). It may be that (a) X causes Y, (b) Y causes X, and we just have not taken sufficiently fine-grained observations to establish the causal order of these events, (c) there is a reciprocal relationship between the two where an increase in either X or Y corresponds to an increase in the other, or (d) the relationship between the two is spurious and simply indicative of some other underlying process that raises the likelihood of both events occurring simultaneously. The implication of this logic is that the mere presence of associated events or conditions does not mean that a powerful risk indicator has been identified.

This point was highlighted in an article by Helena Kraemer and her colleagues (Kraemer et al., 1997), which introduced the useful distinction between *risk markers* and *risk factors*. The basic argument is that researchers and practitioners should be more careful about whether something seems to have a causal relationship with a negative outcome or whether it simply seems to occur in close temporal proximity to that outcome. This distinction is important because it implies different strategies for assessing risk and undertaking interventions designed to reduce the occurrence or intensity of antisocial behavior.

If a risk indicator is a *risk marker*, its occurrence is associated with and may even precede offending. In short, it co-occurs regularly with the antisocial behavior of interest and may be promoted by some of the same influences that promote that antisocial behavior. If it is a *risk factor*, there is a causal link between the identified risk indicator and the antisocial behavior, with a reduction in the occurrence of the risk indicator reducing the likelihood of the antisocial behavior. A risk indicator is a risk factor for antisocial behavior if its occurrence temporally precedes the antisocial behavior and the occurrence of the risk indicator can be shown to increase the likelihood of the antisocial behavior occurring.

Risk markers are obviously very valuable for the identification of high risk groups. Focusing prevention efforts on groups likely to develop later problems makes good sense. Deciding how to intervene, however, rests largely on the identification of risk factors. Those responsible for interventions (and the assessments that set the stage for them) need to decide what aspects of functioning to

focus on with this high-risk group. Interventions obviously should be focused on causal and changeable risk factors to maximize impact.

Unfortunately, identifying risk factors is not a straightforward task. Making a claim that a risk indicator is indeed a risk factor, rather than a risk marker, requires a substantial body of information beyond the demonstration of an association. It is necessary to have empirical results indicating that reduction in the risk indicator produces substantial reduction in the antisocial behavior. At this point in the development of risk research on adolescent offending and violence, though, we are still short of demonstrating that we have found a large number of powerful risk factors for antisocial behavior. We have considerable convergence on the associations between certain risk indicators (e.g., parental supervision, age of onset of problem behavior) and serious antisocial behavior, but there is limited information about whether these risk indicators are pivotal points for intervention whose reduction substantially reduces the likelihood of later antisocial behavior. Such evidence requires careful longitudinal work examining interventions as well as carefully conceptualized tests of specific types of possible interventions. The amount of work that meets these criteria is relatively small (Satcher, 2001).

For the purposes of risk assessment per se, the identification and assessment of risk markers is probably adequate. Those adolescents with the presence of risk markers that regularly precede reoffending or violence are at more "risk" for these subsequent behaviors. If, however, one is pursuing risk assessment with an eye toward recommendations for intervention, this distinction between risk markers and risk factors becomes crucial. Assessment of needs should focus on those risk indicators that, if changed, can reduce the likelihood of the negative outcome. Unfortunately, there is often little attempt to sort out risk markers from risk factors, and interventions are assumed to be useful if they are directed toward any risk indicator with a demonstrated association with the negative outcome.

Risk Status, Risk State, and Risk Management

Finally, it is worth noting that risk is not static; it has a dynamic quality. People are not at the same level of risk at all points in their lives or under every set of conditions that they might encounter. Antisocial activity is not the sole product of an internal propensity manifesting itself in a set of behaviors. Like other behaviors, it is some combination of individual proclivity and "environmental press" (Murray, 1938).

It is reasonable to assume, therefore, that risk for involvement in particular behaviors shifts over time, even for people who are at higher overall risk than others for involvement in antisocial behavior. Individuals may be in a high *risk status* group (i.e., the likelihood of involvement in antisocial activity is higher for people like them than it is for the rest of the reference group), but their likelihood of involvement in antisocial activities may still shift considerably over time, depending on the situations that confront them. This fluctuation in the likelihood of engaging in antisocial behavior over time has been referred to as change

in *risk state* (Mulvey & Lidz, 1995, 1998), and the importance of considering these changes in managing risk for violence has been emphasized (Heilbrun, 1997).

This general point is particularly relevant when considering risk assessment in juvenile offenders, since change is a fundamental aspect of adolescence. Whether criminally active or not, individuals undergo marked physiological, psychosocial, and cognitive developmental changes during middle and late adolescence that can have an effect on their antisocial behavior (Mulvey et al., 2004). Some of these changes during this period are rather predictable and positive, often increasing the capacity for making sound judgments (e.g., a reduction in impulsivity). In addition, individuals may attain skills and competencies during middle and late adolescence that prepare them for the challenge of entering the workforce or living independently. Other changes, unfortunately, may mark the beginning of enduring limitations for that individual (e.g., the onset of a serious mental disorder during late adolescence). Finally, adolescents often change their social contexts, confronting and mastering new dimensions of identity. Moving out of the house, establishing more stable romantic relationships, and reconstructing peer networks are all changes that occur with considerable frequency for adolescents and have a high likelihood of affecting involvement in antisocial activity.

One obvious corollary of this simple observation is that evaluating risk, whether for purposes of policy or practice, requires a consideration of the developmental stage and social context of the adolescent at issue. Indicators of risk change over the course of childhood and adolescence because (a) the same behaviors do not mean the same things when done by individuals of different ages and (b) key developmental challenges change with age. As a result of developmental changes, the normative quality of certain troublesome behaviors at particular ages has to be considered in assessing that behavior as a risk indicator. Drinking at age 12, for instance, is a much more powerful indicator of risk than drinking at age 17 (Satcher, 2001). Along the same lines, having certain skills and capacities to address the next developmental challenge is a critical consideration. For example, having appropriate job-related behaviors is more important for success at age 18 than it is at age 14.

Despite this apparent truism, a large number of policies or programs conceptualize risk as invariant with age. Certainly there are characteristics of an adolescent that might increase risk rather robustly across different ages (e.g., the presence of a serious learning disorder). However, there are also *age-specific risks*—situations in which the behavior or condition might contribute very differently to risk, depending on the age of the child (Cicchetti & Cohen, 1995). Aggressiveness with peers, while a rather consistent indicator of trouble, appears to be a much stronger marker for continued aggression when it happens in boys 9–11 years of age than when it emerges later in adolescence, while disorganized neighborhoods are more influential with older rather than younger adolescents (Thornberry & Krohn, 2003). In thinking about identifying groups of adolescents at highest risk for reoffending or in assessing individual adolescents regarding their level of likely risk for reoffending, it is important to choose indicators of

risk that are particularly relevant for different age groups. Like shirts, what fits a 13-year-old doesn't necessarily fit a 16-year-old.

The implications of this simple observation are rather far reaching. If one were to take seriously the idea that risk changes substantially with age and with context, then risk/need assessment for juvenile offenders would necessarily be much more differentiated than it is currently. At the policy level, this would argue for blended sentences that reassess the most serious adolescent offenders when they are likely to be punished in the adult system (Redding & Howell, 2000). Regarding actuarial risk assessments and professional discretion, there would be different domains of factors considered for particular age groups. This would also seem to argue that risk should be reassessed periodically for youth who have long-term involvement with the juvenile justice system.

Conclusion

The idea of risk assessment is a consistent undercurrent in juvenile justice policy and practice. As long as the juvenile justice system has the responsibility for ensuring public safety as one of its main missions, policy-makers and practitioners in this area cannot escape their responsibilities to sort adolescent offenders by their likelihood of doing continued community harm. Doing this more effectively requires both consideration of whether we are currently doing it well and a search for some leads from other areas about how to improve.

As we have seen above, building risk assessment into statutory schemes is inherently limited. Classifications that are acceptable for legal purposes are necessarily rather poor at identifying a homogeneous group of high-risk adolescents. At the same time, there has been considerable progress in the development of actuarial instruments for assessing risk and needs. These instruments need to be tested, revised, and implemented with an eye toward making them work well given the conditions in local juvenile justice systems. Better clinical strategies for assessing risk will require the integration of a developmental perspective to produce thoughtful assessment approaches.

In the larger picture, two types of information would be particularly useful for improving the risk assessment of juvenile offenders. First, it would be useful to have more information about the patterns of desistance in serious adolescent offenders. Knowing if there are distinct, identifiable pathways out of involvement with juvenile crime rather than just likelihoods of involvement in future crime or violence would refine our current state of knowledge. Ideally, identifying the characteristics of the adolescents who progress along each of these pathways could eventually reframe the risk assessment enterprise.

Identifying distinguishable pathways out of the juvenile justice system would contribute to risk assessment by allowing justice professionals and clinicians to think in terms of the factors related to different classes of offenders (e.g., a high-frequency, continuing offender or a likely desister by age 20), rather than just the likelihood of future crime or violence. Currently, assessing risk in serious adolescent offenders is generally a matter of gauging whether the severity of

the present offense and the history of prior treatment warrants institutional placement, and professionals and locales vary widely in their sophistication regarding this task. Having more knowledge about the types of factors that might differentiate among serious offenders, once initially identified, could focus practice and planning in this area.

Second, it would be useful to know the impacts of the strategies used most commonly with these high-risk offenders. Comparisons of different types of interventions (e.g., secure confinement vs. community supervision) or sanctions (e.g., longer-term vs. shorter-term confinement) would be valuable for guiding court dispositional practices. Judges and probation officers are often faced with decisions about allocating scarce court resources with little empirical guidance about when these particular interventions or sanctions will be most effective for reducing risk. Empirical information about the optimal payoff for investment with particular types of offenders could provide a rational structure for these decisions.

The types of information described above are potentially useful both for policy purposes and for improving the individualized assessments of serious adolescent offenders. Such data would provide policy audiences with evidence about the utility of different sanctioning and processing options, a topic that is hotly debated in the midst of today's trend toward a more retributive juvenile justice process. For practitioners, this information should provide a richer base of information to consider in risk assessments, as well as what signs to monitor or assess on an ongoing basis with serious adolescent offenders.

No research can provide a dispositive answer to the question of how much risk to take with serious offenders or what "should be done with" them. This is a complex sociopolitical issue beyond the scope of any empirical test. Future work can, however, enrich the field's understanding of how sanctions and developmental events exert influences and interact in the lives of these adolescents. A more refined picture of this sort would be a large step forward toward debate and practice based more on reason than rhetoric.

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