One approach to identifying gaps in knowledge about serious and violent juvenile (SVJ) offenders is to focus on "missing information" in the empirical literature. It would be quite easy, in fact, to compile a long list of research questions covering a diverse set of topics. This is an important task that is necessary in recommending future research priorities. However, I propose that future research questions are best viewed through a lens that frames the issues in terms of gaps in our approach to understanding the problem of serious juvenile crime.

In this chapter, I first attempt to provide this lens by identifying and discussing three key points related to how we think about SVJ offending. I propose that a framework for understanding this problem requires (a) a specific focus on SVJ offenders that incorporates issues of definition, heterogeneity, and co-occurrence with other behavior problems; (b) an understanding of the social ecology of serious juvenile crime in terms of the complex interaction between individual, situational, and contextual influences over time; and (c) an awareness of the relevance of research to services, systems, and policies that must include an appreciation of how research can be informed by the daily lives of people who experience or address problems of serious juvenile crime.

The overarching theme of this chapter is that research and practice must be interconnected in a feedback loop that allows each to...
inform the other. The research endeavor must be collaborative, and the common goal must be to forge an understanding of the dynamics of SVJ offending to formulate promising action strategies and develop responsive policies. Although there are endless possibilities for theoretical contemplation, the ultimate utility of research on social problems lies in its ability to inform practices so as to prevent or reduce the problem at hand.

Because any strategy to ameliorate serious juvenile crime rests on a complete picture of the nature and scope of the problem, gaps in knowledge about patterns and trends in youth crime are reviewed, particularly as this relates to SVJ offenders and available sources of data. Following this, limitations of the currently used risk assessment and classification instruments and methods are examined. Next, gaps in research on the causes and correlates of serious juvenile crime are reviewed, with particular emphasis on the strengths and limitations of a risk-focused approach and alternative models for use with SVJ offenders. Finally, needed research on the efficacy and effectiveness of prevention and intervention strategies is discussed.

Rather than conclude with a laundry list of gaps in research, I attempt to illuminate a set of research priorities and directions for future research that integrates gaps in knowledge related to patterns and trends, prediction, etiology, and intervention. Drawing on relevant literature as well as comments by participants at the Office of Juvenile Justice and Delinquency Prevention (OJJDP) Study Group meetings, specific needs in each area and recommended actions are discussed. These are summarized in Table 16.1. It should be noted that these represent research priorities, and not recommendations for specific programs or services.

---

**A Framework for Understanding Serious and Violent Juvenile Offending**

**Focusing on Serious and Violent Offenders**

In Chapter 1 of this volume, Farrington and Loeber provide an overview of the mission of the OJJDP Study Group. They juxtapose what we know about recent trends in youth crime with what we know about etiology and intervention, and they highlight what could be considered a deep chasm. Against a backdrop of steep increases in juvenile violent crime over the past decade and public outcries for solutions, we are faced with an almost "generic" literature on juvenile delinquency that has not, to date, provided clear guidance for understanding serious, violent, and chronic offending. As they state, "It is likely that much of our knowledge about risk/protective factors and prevention/intervention programs does not apply specifically to SVJ juvenile offenders" (p. 6). Herein lies a basic problem in our approach to understanding serious juvenile offending. We must refocus research efforts toward understanding those individuals, events, and settings most connected to the true picture of youth violence and serious/violent offending at this time.

A prime example of this shortcoming can be found in the prevention and intervention literature. In a recent review of programs to prevent or reduce adolescent violence, Tolan and Guerra (1994b) noted the difficulty in finding programs that specifically measured impact on serious violence. In fact, it is common practice for programs to use outcomes such as attitudes about violence or delinquency, responses to hypothetical decision-making scenarios, or minor and age-normative problem behaviors as indexes of effectiveness.
and to conclude that change in these proximal outcomes indicates that the program "works" as an antiviolence intervention. This is not to imply that changes in attitudes about violence are not an important component of a strategy to prevent or mitigate SVJ offending; however, it is unlikely that these programs alone will have an impact on actual offending.

Of course, there are several reasons why it is difficult to measure program impact vis-à-vis violent or serious delinquent behavior, particularly during the early years before such behavior is evident. Nevertheless, several accommodations are warranted both in terms of types of outcomes measured, long-term follow-up, and program impact on youth with the most extreme behavior problems. These issues are carefully examined later in this chapter and are presented at this time to highlight the need to focus efforts on understanding the causes and potential solutions to the problem of SVJ offending.

To begin, redirecting research efforts along these lines first requires some degree of consensus about the operational definition of this

---

**TABLE 16.1 Summary of Research Needs and Recommendations**

<table>
<thead>
<tr>
<th>Need</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidemiology</td>
<td></td>
</tr>
<tr>
<td>National data with oversampling</td>
<td>Tie in surveys with existing national studies such as</td>
</tr>
<tr>
<td>in high-risk areas</td>
<td>Department of Labor/OJJDP survey</td>
</tr>
<tr>
<td>Assess SVJ offending in different age groups</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment</td>
<td></td>
</tr>
<tr>
<td>Develop assessment tools to predict future risk, guide placements, and assess needs</td>
<td>Field test instrument development projects that examine cultural influences and include positive features of youth and settings</td>
</tr>
<tr>
<td>Determine potential cultural biases</td>
<td>Refine prediction tools to increase accuracy</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Causes and correlates</td>
<td></td>
</tr>
<tr>
<td>Incorporate qualitative and quantitative data to better understand causes of SVJ offending</td>
<td>Augment existing quantitative studies with narrative studies</td>
</tr>
<tr>
<td>Focus research on why people stop offending and how individuals adapt to risk</td>
<td>Conduct research with individuals in settings where crime should be high but isn't</td>
</tr>
<tr>
<td>Assess situational factors in crime (time, place)</td>
<td>Create databases that permit examination of youth to adult transitions related to SVJ offending</td>
</tr>
<tr>
<td>Link data on youthful offenders with early adult records</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevention and intervention</td>
<td></td>
</tr>
<tr>
<td>Determine which programs are appropriate for SVJ offending versus general youth development</td>
<td>Conduct studies that match outcome assessments to expected benefits</td>
</tr>
<tr>
<td>Use randomized trials when appropriate and specify alternate methods of evaluation</td>
<td>Study impact of different programs on SVJ offending and its developmental precursors</td>
</tr>
<tr>
<td>Determine optimal implementation and cost-benefits analyses</td>
<td>Improve evaluation of community-based, local efforts</td>
</tr>
<tr>
<td></td>
<td>Improve evaluation of multicomponent programs</td>
</tr>
</tbody>
</table>

**NOTE:** SVJ = serious and violent juvenile.
categorization as well as relevant subgroupings or classification typologies. In Chapter 2 of this volume, Loeber, Farrington, and Wasschusbuch underscore the need for unambiguous definitions while highlighting the difficulties inherent in setting some type of cut score or threshold for inclusion. Still, they offer a set of recommendations for distinguishing serious and violent offenders based on predetermined standards regarding type and/or number of offenses. Adopting a common definition would at the very least allow for comparability across studies and uniformity across policies.

It should be noted that adoption of categorical definitions of SVJ offenders and accompanying typologies (e.g., property vs. violent; life course persistent vs. adolescence limited) still results in an offense-based typology. Reporting is based on either official records of the crime an individual is arrested for or self-reported incidents of behavior, with each source of data presenting an incomplete picture of actual behavior (Huizinga, 1991). In addition to being offense based, the resulting categorizations may still be too crude to permit more fine-tuned analyses. Greater specificity may be needed, particularly when moving beyond documentation of patterns and trends toward an understanding of causes, correlates, and effective solutions. For instance, are factors leading to predatory violence such as robbery (when the victim is a stranger) similar to those leading to interpersonal violence (when the victim is an acquaintance, friend, or relative)? If not, should training youth in conflict resolution skills have any impact whatsoever on predatory violence? In any case, it is important to consider carefully the level of specificity needed to address different types of research questions and to refine definitions and classifications accordingly.

A related issue arises from the use of any classification scheme that defines and labels individuals based on commission of an offense. In other words, when the “problem” is labeled as understanding serious and violent “offenders” rather than the dynamics of serious and violent offending, co-occurring behavioral problems and situational and contextual factors that may have contributed greatly to this pattern of offending are easily overlooked. Clearly, there is a sizable literature suggesting that a small group of offenders repeatedly commit a large percentage of serious and violent crimes (see Chapter 2), and it is important to understand how these criminal career patterns develop (Blumstein, Cohen, & Farrington, 1988b; Farrington, 1986; Moffitt, 1993). However, any typology must permit consideration of the range of individual, contextual, and situational influences that affect onset, occurrence, and desistance of SVJ offending.

Understanding the Social Ecology of Crime

Theories of delinquent and criminal behavior range from those that focus largely on individual attributes (e.g., Moffitt, 1993) to others that emphasize situational factors or events (e.g., Felson, 1993), and still others that highlight the role of contextual influences (e.g., Sampson & Laub, 1993a). Regardless of their primary thrust, almost all recent theories of crime and delinquency at least acknowledge the interplay between individual, situational, and contextual factors, suggesting that an understanding of serious juvenile crime requires consideration of the full range of influences on an individual’s behavior.

Most frequently, one or several contextual influences are postulated at different points in development. For example, there is a large body of research documenting the role of family factors such as coercive child management practices in the etiology of early aggres-
sive behavior (Patterson, 1982). In developmental studies, this pattern has been shown to generalize from minor oppositional behavior at home to more serious noncompliance at home and in other settings (Patterson, Reid, & Dishion, 1992). Other studies have investigated the influence of peers. Several studies have documented a link between early aggression, rejection by peers, and subsequent escalation of problem behaviors (see Parker & Asher, 1987, for a review). During adolescence, association with antisocial peers rather than peer rejection has been found to be one of the strongest predictors of delinquent behavior (Lipsey and Derzon, Chapter 6, this volume).

Other research has focused on the role of contextual and systemic factors outside the family and peer group. Social, cultural, and economic forces have been implicated in the etiology of antisocial and criminal behavior, particularly as they can account for the higher crime rates among poor, urban minorities (Hammond & Yung, 1991). Several characteristics of distressed urban settings have been linked with crime and violence. For instance, the chronic and persistent poverty that characterizes some inner-city neighborhoods portends multiple stressors that, in turn, have been found to predict future problem behaviors (Guerra, Huesmann, Tolan, VanAcker, & Eron, 1995). In addition to multiple stressors, community-level social disorganization and social isolation, particularly as they affect informal social control and the development of illegitimate social organizations, have been implicated in the learning and escalation of crime and violence (Sampson & Laub, 1993a). Furthermore, the lack of economic opportunities coupled with variations in cultural history and cultural norms may promote involvement with gangs and other illegal acts (Anderson, 1990).

Not only do parents, peers, communities, and culture exert independent influences on children's antisocial behavior, these contexts are also interconnected and overlapping, making the picture even more complex. Children live in families that reside in specific neighborhoods with certain cultural and social opportunities and constraints. Because social contexts overlap, events taking place in one context such as the parent's workplace can affect parent-child interactions and indirectly affect the child, even though he or she has no direct participation in the parent's workplace.

The ecological organization of social contexts makes it difficult to ascertain the myriad potential interactions across contexts as they relate to individual antisocial behavior. In addition to multiple contextual influences, individuals also experience contexts differently. Thus, a simultaneous focus on the person and the context in which development and action occur is necessary to understand SVJ offending in terms of the dynamic interaction between individuals and the settings in which they live.

Such an approach stretches the limits of quantitative methodologies, and may be better served by a strategy that combines comparative longitudinal and ethnographic methods that consider the full range of contextual influences. At the very least, quantitative studies should be augmented by qualitative efforts that provide narrative accounts of how identified risk factors play out in daily life. Furthermore, these studies should incorporate situational and functional factors that contribute to SVJ offending, and describe how these interact with individual and contextual influences.
search that is useful for prevention and intervention efforts in the field. A central issue confronting social scientists is the extent to which research simultaneously advances knowledge and informs policy and practice in this area. Toward this goal, researchers must pay attention to a number of issues including (a) the need for research to be informed by the daily lives of children and families, (b) the need for replication of findings, (c) building in sensitivity to the generalizability of findings across cultures and settings, (d) considering practical concerns such as costs and ease of implementation for interventions or system changes, and (e) developing methods of dissemination that are readily understood in the field.

Too often there has been a poor fit between researchers' assumptions about the dynamics of SVJ offending and the perspectives and voices of those who commit such crimes. For example, a primary focus of prevention science is the "systematic study of potential precursors of dysfunction" (Coie et al., 1993). Models such as this equate violence with psychopathology and disorder. Yet field studies using narrative interviews suggest that in some contexts violence may serve a number of practical functions including maintaining status and respect, acquisition of material goods, and management of conflicts (Fagan & Wilkinson, in press). Preventive interventions in these settings that do not acknowledge the functional aspects of violence for some youth will likely be doomed to failure.

In addition to grounding research in the daily lives of participants, it is important to promote replication studies. Policies and practices should not be driven by one or two studies with significant results. Unfortunately, studies that fail to replicate findings are often difficult to publish, particularly in intervention research. Consistent with a need for replication is a need to establish the generalizability of findings across cultures and settings. Critics have often noted that many basic assumptions about human development and criminal behavior are rooted in research conducted with largely white, middle-class children (Rogoff & Morelli, 1989). More research is needed that carefully examines the role of culture in the etiology and prevention of SVJ offending (Laub & Lauritsen, 1993).

Research on SVJ offenders must be extended to include determinations of real-world feasibility. For example, rather than assessing a panoply of risk factors for SVJ offending, it would be useful to focus on those risk factors that are most readily modifiable. At the very least, it is important to distinguish risk factors useful for identification of populations (e.g., urban, economically disadvantaged), or subgroups of individuals (e.g., males), from risk factors to be targeted by an intervention (e.g., family management practices). Similarly, prevention and intervention studies must consider the extent to which such programs or strategies are easily implemented in the field, as well as associated costs. Field testing programs that are prohibitively costly to implement does not provide useful guidance for service providers. Along these lines, researchers must also incorporate mechanisms for dissemination of findings via user-friendly manuals and materials that can be useful for translating research into practice, and include dissemination plans in research grant applications.

Gaps in Research

Patterns and Trends in SVJ Offending

Given a perspective that emphasizes the need to focus on SVJ offenders, to consider offending within a social ecological framework, and to conduct studies that are most relevant for policy and practice, let us now
First, it is important to note that available national-level data on SVJ offending are derived primarily from either official records or victimization surveys and generally are not available for youth under age 12. There have been few systematic efforts to collect national data using self-report measures. Yet there are several problems with available data, particularly official records. As Loeber et al. (Chapter 2, this volume) point out, arrest or adjudication records reflect only a small percentage of actual SVJ offending when compared with self-reported offending. Such records are also extremely sensitive to changes in official law enforcement and judicial practices, and they do not provide a window into early delinquent involvement. Local policies for collecting information such as ethnicity (particularly as this relates to nuances in ethnic affiliation and how these are identified) and gang involvement also vary and limit the breadth of information available. Thus, large-scale, self-report surveys that include SVJ offending and that oversample in high-risk communities would be a necessary and much-needed complement to data based on official records. A practical strategy to accomplish this task would be to incorporate relevant questions in compatible survey research studies, such as is currently accomplished by the cofunding by OJJDP of a new Department of Labor study.

Still, although self-report measures have gained popularity as valid measures of delinquent behavior, they are also subject to potential biases in responding and administration (e.g., school-based surveys miss those who are not in school). Because of these limitations, another important step is to continue to develop and validate self-report measures and methods that are best suited to assessing SVJ offending and related characteristics of interest. Research is also needed that examines specific types of response biases and how best to increase accuracy of reporting. For example, some research has shown that compared to white youth, African American youth tend to agree in response to agree-disagree items and to favor the extreme ends of response scales (Bachman & O’Malley, 1984). More generally, there is some evidence of differential underreporting by African American youth (for a review of this and recent self-report of delinquency results, see Farrington, Loeber, Stouthamer-Loeber, Van Kammen, & Schmidt, 1996).

Data that document behavior problems that co-occur with SVJ offending would be particularly useful in determining prevention and intervention strategies. As Huizinga and Jakob-Chien (Chapter 4, this volume) noted, in studies where data are available on co-occurring problems, a significant number of SVJ offenders have been found to experience other problems, particularly school problems. In fact, school problems combined with other problems involve 80% of delinquent youth in some of the samples studied. This is quite important in that it suggests a potential mechanism for identifying at-risk youth in school settings (e.g., those having school problems and additional problems) as well as types of interventions recommended. However, as they note, more data are needed, particularly in terms of the overlap between SVJ offending and other areas of difficulty, such as mental health problems.

Risk Assessment and Classification of SVJ Offending

In Chapter 9 of this volume, Le Blanc reviewed the current state of the art regarding measures and methods of screening for serious, violent, and chronic offenders. He noted,
In summary, much technical work still needs to be done before we can develop appropriate screening instruments for the identification of potential SVJ offenders or the classification of SVJ offenders. Some screening strategies and instruments are promising, but none can be recommended for immediate use to policymakers and practitioners. (p. 193)

As he carefully points out, there are virtually no screening instruments to date that have been designed for and validated with SVJ offenders. Yet because of the widespread use of screening for assignment to prevention and intervention programs across multiple institutions (e.g., schools, juvenile justice), it is imperative that efforts be directed toward the improvement of assessment measures and techniques, particularly as related to SVJ offending. In addition to developing an array of intervention options, well-designed and validated assessment procedures are needed to assess and classify youth to maximize the impact of these interventions.

Risk assessments are used in different settings and for different purposes, and specialized measures must be developed and validated in each setting. At the prevention stage, techniques and strategies have been developed for both community-level assessment for universal, population-based programs and individual-level risk assessment for targeted programs. Known factors at the community level that are associated with higher rates of SVJ offending such as low income, social disorganization, and social isolation have been used to select specific communities for prevention programming. Within communities, strategies such as Communities That Care have been implemented to describe in more detail the specific risk factors at the community, family, and individual level and to document programmatic needs (Hawkins & Catalano, 1992).

It is generally easier to identify community factors that portend high risk than to screen for those individuals who are most likely to become SVJ offenders. The low base rate of SVJ offending makes it difficult to predict accurately future offending, particularly with younger children. Multiple gating methods have been advocated as a cost-effective screening mechanism to identify risk groups. This approach involves beginning with a relatively inexpensive screening (the first gate) for a designated population, followed by a more expensive and sophisticated screening with a pool of individuals identified at the first gate (Loeber, 1990). Such an approach is bolstered by the use of multiple informants and multiple-variable domains.

This procedure is widely used in prevention screening. However, as Le Blanc (Chapter 9, this volume) points out, four practical questions remain that suggest directions for future research: the number of gates to retain, the age at which to screen, the location of screening, and the best predictors to include. The age at which to screen and optimal location will, most likely, depend on the specific focus of the planned intervention or activities. Because of concern over relatively high rates of false positives and false negatives, however, more research is needed to examine various combinations of predictors and gates for children from diverse backgrounds and age groups. More gates and more variables do not necessarily increase prediction accuracy. For example, in one recent child screening study with kindergarten children, Lochman et al. (1995) found that a two-step procedure using teacher and parent behavior ratings effectively predicted negative behavioral outcomes over 1 year later, although an additional parenting practices screening measure did not add to prediction accuracy. Studies such as this provide important information for minimizing intrusiveness and maximizing accuracy of risk-screening procedures. However, the
utility of screening measures (particularly for young children) for predicting SVJ offending still must be demonstrated.

Perhaps nowhere is there a more critical need to improve risk assessment and classification practices that affect SVJ offenders than in the juvenile justice system. Structured decision making for placement and services, based on formalized risk assessment tools, is now the norm in state juvenile corrections agencies. Several instruments have been developed that revolve around a core set of risk predictors complemented by different site-specific factors. Although progress has been made in empirical validation of these scales, several problems remain. In particular, because of the low base rates of SVJ offending, it is difficult to predict violent and serious future offending. Rather, scales typically predict general outcomes such as rearrest. Furthermore, although these general outcomes can be reasonably estimated at the aggregate level, a given individual’s future behavior is extremely difficult to predict. Because risk factors often include static contextual variables (e.g., neighborhood violence, income level), minority youth from poor urban neighborhoods are likely to score higher on risk, which should also result in higher false positive rates for those groups of juveniles.

Beyond simply assessing likelihood of reoffending, screening instruments are used to predict the need for temporary detention, appropriate placements, custody needs within correctional facilities, and specific types of interventions and services recommended. In most cases, these instruments have been developed by state and local agencies and are typically not based on empirical research. However, the limited number of empirical studies support the utility of continuing to develop reliable and valid measures for all phases of justice system services.

Another area in need of further development concerns the use of assessment to determine appropriate services. Assignment to treatment generally is determined through either a classification system or checklist of individual needs from a needs assessment scale. Ease of implementation has been enhanced by keeping most scales short and simple. However, several limitations to this procedure should be addressed. In particular, most needs assessments focus on broadly defined deficits across multiple domains of functioning, with one or two questions in each domain. It is unlikely that a useful typology presenting a true picture of individual needs can emerge from such assessments. Even more troubling is the fact that such assessments rarely focus on strengths, that is, assets or supports that can be mobilized to promote healthy development. Perhaps a more useful approach would be to compile a developmental profile beginning with earliest justice system contacts that details an individual’s specific strengths and weaknesses across multiple domains.

Causes and Correlates of SVJ Offending

A range of methodologies has been employed to examine causes and correlates of offending. Over the past several decades, a multitude of cross-sectional studies have identified and replicated correlates of offending, including those specific to SVJ offending. The causal role of these factors has also been implicated in longitudinal studies that in some cases have relied on relatively short windows of time such as a few years, and in other cases have followed the life course pathways of selected individuals for several decades. Still other studies have tested causality through experimental manipulation via interventions designed to affect proposed antecedent factors.
From this array of studies has come a unifying framework focused on risk factors and protective factors for delinquent behavior (i.e., a risk-focused approach) that has dominated the field over the past decade (Coie et al., 1993; Howell, Krisberg, Hawkins, & Wilson, 1995). Such a framework represents a clear advance over vague theories of criminal behavior that were often difficult to test empirically and provided little clear direction for prevention and intervention. However, although it has made many contributions, this framework has several limitations that need to be overcome so that we can advance our knowledge of the causal processes that contribute to SVJ offending. These limitations can be discussed while keeping in mind the three points mentioned earlier in this chapter related to the need to focus specifically on SVJ offending, to understand such behavior in terms of ecological influences, and to ground empirical studies in the practical experiences of those involved.

First, most variables studied in cross-sectional and longitudinal studies that measure SVJ as an outcome and are used to develop lists of risk factors are largely driven by deficit models of development. Although the notion of "protective factors" or conditions that counteract the effects of exposure to risk has surfaced repeatedly, empirical studies that link specific protective factors to specific domains of risk are virtually nonexistent for SVJ offending. It is important to distinguish protective factors that are the opposite of risk factors from those that interact with risk factors to counteract their effects.

A notable advance in this literature would be to enumerate protective factors vis-à-vis specific risk profiles and contexts. For example, what protective factors reduce risk for children living in high-violence and gang-ridden neighborhoods? Who have family problems? Who attend bad schools? Who display individual deficits such as impulsivity? Who have combined risk profiles? Recent qualitative studies suggest that there may be tremendous individual variation in response to risk even within similar community contexts. For example, Gustin, Guerra, and Attar (in press) interviewed four children who were at risk for delinquency based on living in high-violence neighborhoods, attending schools with few resources, and experiencing multiple stressors, yet experienced highly successful and adaptive outcomes. For each child the protective factors were different and ranged from a supportive family and a close network of friends to an optimistic outlook on life.

Risk-focused approaches must also acknowledge and integrate information on the actual and perceived benefits of involvement in SVJ offending. It is naive to dismiss the potential benefits of criminal activity as well as the specific situational correlates that portend violent or criminal events (Fagan & Wilkinson, 1996). For instance, for children living in low-income, high-violence neighborhoods with high levels of gang activity, carrying a weapon or joining a gang may be motivated primarily out of fear and desire for self-protection. In addition, specific events may promote or inhibit offending.

In most cases, risk-focused approaches tend to be atheoretical, providing lists of risk and protective factors, although these are sometimes loosely woven together by a general theory. Unfortunately, these general theories are often tautological, for instance, proposing that children become involved in delinquent acts because they are not involved in nondelinquent acts. Such an orientation provides little clear guidance for distinguishing among risk factors, but rather tends to convey the idea that risk factors are generally independent of each other and of equal value. Thus, targeting any two presumably is better than targeting one alone. However, it is more likely the case that successfully addressing a
single strong causal factor may be more effective than targeting three or four variables that have weak or spurious influences. Of course, this is the rationale behind multicomponent, multilevel interventions described by Wasserman and Miller (Chapter 10, this volume). However, even the most comprehensive interventions rarely evaluate adequately the relative contribution of different components related to types of risk factors.

Differentiating the impact of risk factors requires advances in both methodology and theory. For instance, as Lipsey and Derzon (Chapter 6, this volume) demonstrate, meta-analyses can be used to synthesize longitudinal research on risk factors to provide a ranking of influence based on effect size. Their research is enhanced by the addition of age groupings with quite different predictors emerging for children (ages 6-11) and adolescents (ages 12-14). Indeed, it is striking to note that antisocial parents but not antisocial peers contribute very significantly to the prediction of offending when measured between ages 6 and 11, but this relation virtually reverses between ages 12 and 14.

Still, such findings must be understood within the context of theoretical explanations that are sensitive to the heterogeneity of SVJ offending. It has become increasingly clear that no single theory is likely to account for as complex a phenomenon as delinquency. A focus on the social ecology of offending has illustrated the role of contextual influences as well as the need to account for person-in-context interactions. Clearly, theoretical advances are warranted that more clearly specify both indirect effects of variables as well as important interactions that are linked to particular patterns of offending or offender typologies among discrete populations.

One issue that has emerged in recent years is the need to incorporate developmental questions into theories of delinquent behavior (as is also evident from the results of the Lipsey and Derzon meta-analyses in Chapter 6). Although there is a large developmental literature on problem behavior in children and adolescence, and particularly on the development of aggressive and antisocial behavior, the developmental literature and the criminal justice literature have evolved in two separate strands that have only minimally informed each other. Only recently have researchers begun to reject the notion that the causes of offending do not vary with age. Loeber and Le Blanc (1990) have proposed a "developmental criminology" that examines the effects of identified variables on youth of different ages as well as the differential effects of these variables on processes of offending including initiation, escalation, and desistance. Similarly, Sampson and Laub (1993a) have described an age-graded theory of informal social control as applied to offending, and Williams, Guerra, and Elliott (1996) have put forth an ecological model of life course development that emphasizes developmental stages, life course transitions and pathways, and nested social contexts. As these developmental perspectives suggest, it is important to understand how individuals navigate their life course in relation to SVJ offending. This includes questions of when and why individuals begin offending patterns early or later in development, as well as when and why they outgrow them and how these changes can be maintained.

It is also important to study further how risk and protective factors and accompanying developmental processes vary as a function of other key characteristics such as gender, culture, and social class. This requires a more sophisticated operationalization of "sociocultural context" that goes beyond a checklist of ethnicity, a 5-point social class rating index, or a simple contrast of males versus females. Rather than attempting to make generalizations about specific groups of offenders, it is more useful to understand the key aspects of
400  ■  SERIOUS AND VIOLENT JUVENILE OFFENDERS

a given sociocultural context that influence
the processes of involvement and desistance
from SVJ offending.

A good example of the limitations of
broad-stroke assessments is the complex rela-
tion between poverty and SVJ offending. Al-
though crime rates are highest in low-income
neighborhoods (Fingerhut & Kleinman,
1990) and relations have been found be-
tween poverty and aggression (Patterson,
Kupersmidt, & Vaden, 1990), it is likely that
the specific sociocultural conditions that ex-
ist in certain low-income settings rather than
lack of money relate to increased offending.
As Jencks (1992) notes, “If low incomes
alone drove people to crime, graduate stu-
dents and clergymen would also commit a lot
of crimes” (p. 113). Thus, although there is a
critical need to understand the concentration
of SVJ offending in disadvantaged neighbor-
hoods, it is clear that this must go beyond the
assessment of income or social class.

Similarly, the role of gender has often
been reduced to comparisons between males
and females, with males outscoring females
on SVJ offending. Yet further distinctions
within each gender are also warranted. For in-
stance, a critical issue is to make better dis-
tinctions between males who are SVJ offend-
ers and males whose offending is more
temporary, less serious, and less frequent
than SVJ offenders.

In a recent review of longitudinal and
comparative research on violent criminal be-
avior, Laub and Lauritsen (1993) propose a
research agenda that examines carefully the
sociocultural processes underlying the devel-
opment of extreme antisocial and violent be-
havior. They argue for a strategy that com-
bines comparative longitudinal and ethnographic methods to examine variations
in the interactions between individuals and
the sociocultural environment and how these
variations influence offending. In particular,
they point to the need to examine factors that
influence the large within-individual changes
in antisocial behavior, despite an overall pic-
ture of relative stability within a population.
Methodologies that combine quantitative
data with life histories of offenders (e.g., Farr-
ington & West, 1993) are particularly illustra-
tive.

Finally, research on causes and correlates
of SVJ offending must be sensitive to the
practical utility of such endeavors. For exam-
ple, although the notion of conducting a com-
unity-wide risk assessment is consistent
with a risk-focused approach, the community
collaboratives that implement such assess-
ments typically do not have the expertise to
conduct the surveillance and assessments
needed. Consequently, they often use lists of
risk and protective factors based on research
in other locations, involving groups, circum-
stances, or offending problems that may not
match local community needs. Researchers
must develop mechanisms to synthesize more
clearly those findings about correlates and
causes that could be considered universal and
applicable in all settings, as well as influences
that may be unique to particular set-
tings.

**Prevention and Intervention Strategies**

As detailed in several recent reviews of the
field (e.g., Guerra, Tolan, & Hammond,
1994; Tolan & Guerra, 1994b; Yoshikawa,
1995; Zigler, Taussig, & Black, 1992) as well
as Chapters 10-15 of this volume, there is a
large and growing empirical literature fo-
cused on the prevention and mitigation of an-
tisocial behavior and its precursors. Parallel
to this empirical literature, there is also a
growing community response to serious
youth crime that uses a range of programs
(Guerra & Williams, 1996). A primary chal-
lenge is to increase the collaboration between
researchers and practitioners so that commu-
nity programs, system responses, and research efforts are synchronized. This requires that the scholarly community acknowledge the practical efforts of researchers and their attempts to convey findings in a user-friendly fashion that are responsive to community input. It also requires that service providers and agencies perceive the value of research to answer questions relevant to their concerns, and receive guidance in conducting sound evaluations. In either case, it is imperative to promote continued dialogue between researchers and practitioners to develop prevention and intervention strategies that are useful and effective in the field.

Research on the prevention and/or mitigation of SVJ offending can be broadly divided into studies that evaluate specific programs or combinations of programs (e.g., preschool enrichment, parent training) and studies that evaluate specific methods, practices, or policies (e.g., diversion, graduated sanctions, corrections). It is important to realize the constraints of this dichotomy, particularly because the impact of different practices may depend on the specific programs used, and this must be considered in evaluation. A good example of this can be found in the diversion literature. Whether or not diversion "works" cannot be answered independently of knowing what programs are provided through diversion (Guerra et al., 1994). Similarly, as Altschuler (Chapter 15, this volume) details, intermediate sanctions involve a range of different responses, and their effectiveness hinges on the amount of treatment received, although less is known about the unique contributions of different treatments, an area in need of further investigation.

When considering evaluations of specific prevention and intervention programs that target specific risk or protective factors, their impact on SVJ offending is often unclear. Many programs, particularly postnatal, preschool, or early-prevention programs, are designed to boost academic functioning, social competence, or parenting skills. Because SVJ offending does not occur during this age period, only a few studies with long-term follow-up data have been able to assess their ultimate impact on offending, with positive, albeit rather weak, results and limited information about the mediating role of changes in risk and protective factors (for reviews, see Wasserman and Miller, Chapter 10, this volume; Yoshikawa, 1995).

Furthermore, little is known about whether these programs must be extended in time through childhood and adolescence via continued programming or "booster" sessions, or whether they are effective alone if applied during certain optimal periods early in development. Because of the costs and resources involved in providing continuous programming, it is of both theoretical and practical significance to determine the ages during which specific types of interventions (e.g., family, social skills, academic competence) are maximally effective, and to specify the age-appropriate foci of booster sessions. Life course models of development and offending that detail critical developmental contexts and important transitions (e.g., Sampson & Laub, 1993a; Williams et al., 1996) provide a framework that can guide the development of programs and specify relevant contexts for children of different ages.

When interventions are conducted during developmental periods when SVJ offending is likely to be evident, they often fail to measure this outcome. In many cases, the "clinical" or real-world significance of group differences is negligible, particularly when all participants score relatively low on an outcome measure that is related to SVJ offending such as aggression or fighting. In other cases, change in age-normative behaviors (e.g., smoking cigarettes) is interpreted as evidence that a program reduces violence or delinquency (for a review, see Tolan & Guerra,
Thus, programs that make youth a little less aggressive or less likely to initiate cigarette smoking are often touted as effective delinquency prevention programs. Future research must specify SVJ offending outcomes, if appropriate, and use measures that directly assess these outcomes if they are to claim to be effective in preventing or reducing this behavior. Along these lines, it is unlikely that SVJ offending can be addressed without dealing with the issue of guns, and the increase in juvenile homicide related to an increase in the use of guns. Yet models of risk and preventive intervention studies do not adequately account for the role of guns and their relation to recent increases in SVJ offending among youth.

In fact, as offending becomes more serious, the effectiveness of intervention strategies tends to diminish. As Lipsey and Wilson (Chapter 13, this volume) demonstrate via meta-analyses of intervention studies, programs for serious juvenile offenders produce reductions in recidivism of a substantial magnitude only under optimal circumstances, and the effects are virtually eliminated under less than optimal conditions. There are also few effective strategies for preventing SVJ offending among gang-involved youth, with only "promising strategies" to recommend (Howell, Chapter 12, this volume). Thus, more research and development are needed in dealing with youth involved in serious violent and delinquent behavior. Because so many of these youth are involved in the justice system, research on effective intervention strategies must evaluate programs (e.g., job training) and juvenile justice responses (e.g., intensive probation supervision) to determine optimal responses.

This points to one of the most difficult issues in intervention research: how to determine the relative contributions of different intervention programs and practices and recommended combinations. On the one hand, given that no single factor is likely to cause SVJ offending, the impact of single-component, single-context programs is limited. On the other hand, long-term, multicomponent, multicontext programs can become difficult to manage with a number of unintended "interventions" (e.g., policy changes, demographic shifts) occurring, and some contexts (e.g., political and economic forces) unamenable to change via the planned intervention. One solution is to provide the most comprehensive intervention possible and to experimentally assess the contribution to change in outcome of each of the hypothesized mediators targeted by the intervention (to the extent that it is possible to measure each variable). Another approach is to use a step design, whereby each step adds an additional component, depending on the particular research questions.

In either case, an important issue for future intervention research involves a greater focus on determining the specific moderators of intervention impact. Rather than ask, "what works?" it is imperative to ask, "what works for whom and under what conditions and in what settings?" Given the multitude of causal mechanisms, their differential relevance at different stages of development, and the multiple social contexts to which individuals are exposed and experience differently, it is likely that most intervention effects will be interactions rather than main effects.

For example, in a recent analysis of data from the Metropolitan Area Child Study, a large-scale, multicomponent, multicontext intervention for urban elementary school children, Guerra et al. (1997) failed to find significant main effects for intervention condition when comparing three types of interventions that were progressively more extensive in scope. However, when the child's initial level of aggression was considered, the interventions were found to be increasingly more effective, but only for the most aggres-
sive children. Thus, looking only for main effects would have obscured the impact of this program for some children. In a similar vein, it is likely that most programs work for some youth but not others, and more emphasis should be placed on determining the best “child-intervention match.” This may also require a greater emphasis on process evaluations and participant interviews regarding program impact on their lives, as well as replication studies in similar and different populations.

### Directions for Future Research

The focus of this chapter has been on identifying gaps in knowledge and research priorities in relation to serious, violent, and chronic juvenile offending. As discussed initially, I believe that setting a research agenda requires a careful examination of how we think about the problem of SVJ offending as well as a delineation of the most pressing research priorities.

First, as previously mentioned, it is critical that research focus more explicitly on SVJ offending as an identified outcome. This task would be facilitated by a consensus in the field regarding the operational definition of this classification, but would still require refinements specific to the nature and purpose of the research. In other words, the associated precursors or level of specificity of behavior would depend on the specific research questions. This focus on SVJ offending points to a methodological gap regarding how we measure SVJ offending. Given the limitations of official arrest and/or conviction data, it seems important to further refine and develop self-report measures that are appropriate at different ages and are sensitive to issues of gender and culture.

Second, researchers have tended to ignore the fact that the low base rates for SVJ offending mean that most children and youth are not involved in this behavior, or age out quite rapidly. In fact, although behaviors such as aggression are quite stable, it is a relative, not an absolute, stability, and is really only most apparent at the extremes of the distribution (Moffitt, 1993). Rather than focusing solely on why SVJ offending emerges as an outcome, we must focus on why it does not develop, and specifically on what individual and contextual influences affect nonparticipation and/or desistance. These questions are best addressed by research that combines quantitative and qualitative methods and provides for assessment of the variations in sociocultural contexts and how these influence behavior.

Third, researchers must respond to the practical issues faced by those who deal with SVJ offenders, including community agencies, schools, and juvenile justice agencies. Decisions that affect SVJ offenders are being made daily, often without the benefit of empirical support. A prime example of the need to forge partnerships between researchers and practitioners is in the area of assessment and classification. Although significant progress has been made in the use of structured assessments, there remains a hodgepodge of methods and measures that provide few useful typologies to assign placements or select appropriate services.

Fourth, a focus on practical issues must be extended to an increased emphasis on prevention and intervention research. Programs that are being conducted in the community are infrequently evaluated carefully, and programs developed by researchers are often difficult to infuse or sustain in community settings. These efforts would be greatly enhanced by a partnership between researchers and practitioners. Given a focus on the problem of SVJ offending, a program of research should be
defined that evaluates carefully the most promising multicomponent programs and permits careful assessment of their "active" ingredients and appropriateness for different types of offenders. Programs targeted for evaluation should be those that are theoretically grounded, cost-effective, easy to implement, user-friendly, and most consistent with ongoing policies and practices.

Fifth, a program of intervention research with SVJ offenders must be complemented by continued efforts to prevent such behavior. To date, the impact of early prevention on SVJ offending has often been an afterthought rather than a carefully planned component focused on long-term outcomes. Questions about inoculation versus maintenance of effects should be answered through systematic efforts to prevent SVJ offending that begin early in development. Further attempts must be made to enhance screening accuracy when a subset of high-risk individuals are selected for targeted services.

To accomplish these goals and delineate a research agenda, we must adopt a framework that permits their consideration simultaneously in a manner that is sensitive to individual differences, contextual influences, and stability and change in SVJ offending. Rather than buying into a single theory of delinquency, it seems more fruitful to adopt a comprehensive model that permits consideration of the complexity of this behavior. This complexity can only be captured by models that provide for a life course or developmental perspective, whereby serious, violent, and chronic offending is seen as a "developmental outcome"—one of many potential developmental outcomes with a subset of common pathways. Thus, future research can be guided by efforts to identify prototypical pathways to nondelinquent and serious delinquent outcomes, and prevention and intervention studies can be guided by knowledge about age-specific precursors and relevant developmental contexts.