Adolescent Risk and Vulnerability: Overview

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Introduction

Adolescents obviously do not always act in ways that serve their own best interests, even as defined by them. Sometimes their perception of their own risks, even of survival to adulthood, is larger than the reality; in other cases, they underestimate the risks of particular actions or behaviors. It is possible, indeed likely, that some adolescents engage in risky behaviors because of a perception of invulnerability—the current conventional wisdom of adults’ views of adolescent behavior. Others, however, take risks because they feel vulnerable to a point approaching hopelessness (Fischhoff et al., 2000). In either case, these perceptions can prompt adolescents to make poor decisions that can put them at risk and leave them vulnerable to physical or psychological harm that may have a negative impact on their long-term health and viability.

Despite the widespread view that adolescents feel personally invulnerable, both scientific evidence and direct discussions with them show that most have serious concerns, many of them based on real-life factors that present obstacles difficult for any individual—adult or minor—to overcome. Chronic diseases such as diabetes, cystic fibrosis, or asthma can pose daunting challenges and even panic. Young people feel threatened by violence, not knowing which minor incident or sideways glance will get out of control, or when they might be in the wrong place at the wrong time. Even if the economy is sound, many adolescents worry about having a decent and meaningful job or career. Racial relations and poverty are special concerns. These are some components of the burden of vulnerability perceived by adolescents in the United States, which might contribute to their participation in risky behaviors such as unsafe sexual activity, alcohol or drug intoxication, risky driving, and more (Fischhoff et al., 1998; Lindberg et al., 2000).

Assessing the Burden of Adolescent Vulnerability

Adolescents today face complex and changing environments in which many things can go right and wrong. If we are to serve and protect them, we must have a full appreciation of these environments as well as society’s opportunities to shape them. Research that can conceptualize, measure, and evaluate the total burden of adolescent vulnerability is sorely needed. New research approaches must be designed to explore as comprehensively as possible the complexities of coexisting risk and protective factors in particular settings as well as variations in the ways adolescent perceive their own vulnerability. Without such knowledge, practitioners are in a poor position to design the best possible programs to facilitate healthy adolescent development and well-being, and policy makers lack the research-based information that can inform their decisions.

Previous approaches to risk taking in young people include a developmental psychosocial model (Levitt et al., 1991). This model encompasses three elements: knowledge about the risk, management skills to deal with it, and the personal meaning of the risk, all within a developmental perspective. The developmental changes in the personal meaning of risks are of particular relevance here.

In a recent review of research on programmatic investments in young people of various ages, Danziger and Waldfogel (2000) demonstrated that early childhood investments pay off for children as they develop. What is also clear from this volume is the need to invest in children as they get older, particularly during adolescence, in which young people experience multiple transitions such as new school environments and changing peer and family dynamics. This volume also documents the lack of systematic research on investments in adolescents that...
could support policy and practice that better meet the needs of youngsters 10 to 18 years of age.

Of central importance to filling this research gap is to reconceptualize approaches that could deal effectively with the complexity of adolescent vulnerabilities by capturing both the total burden of vulnerability of youth in general and of those youth with special problems, particularly chronic illness or extreme poverty. Both adolescents and adults need to know the actual burden of adolescents’ vulnerability and be aware of each other’s perceptions of such before policies and practices can be developed to reduce the burden. Knowing the size of the overall burden is essential in order to decide what personal and societal resources to devote to this problem relative to other priorities. Knowledge about the relative size of different problems and of opportunities for risk reduction is required so that investment in current interventions can be made for the “best buys” and so that better means can be devised to help adolescents. In sum, research that can provide knowledge about the relative burden of adolescent vulnerability could help to protect adolescents, assist practitioners in designing youth development programs, and support policy makers in setting priorities for allocating resources.

Once new approaches have been developed to capture the burden of adolescent vulnerability, additional knowledge can be gained by systematic study or experimentation. An important and accessible place to begin would be to mine existing data sets from the vulnerability perspective; this could lead to closing the gap between perceived and measured risks in the short term while new data are being collected. During the past decade, a growing number of cross-sectional and longitudinal data sets have addressed adolescent risk and sources of vulnerability that lend themselves to the proposed activity. For example, a new source of data that has the potential to significantly advance our knowledge base of behavioral development among adolescents is the National Longitudinal Study of Adolescent Health (Blum et al., 2000; Svetaz et al., 2000). From the collection of longitudinal data, it will be possible to examine how the timing and tempo of puberty influence social and cognitive development among teenagers. This data set permits analysts to examine how family-, school-, and individual-level risk and protective factors are associated with adolescent health and morbidity (e.g., emotional health, violence, substance use, and sexuality). Other longitudinal data sets that could be mined include the National Longitudinal Survey of Youth, the Children and Young Adults of the National Survey of Children and Youth, and the Program of Research on the Causes and Correlates of Delinquency: Denver Youth. Sources of cross-sectional research data that could be useful include the Youth Risk Behavior Surveillance Survey, Monitoring the Future, and the Survey of Children with Special Health Care Needs.

Creating a New Research Base

In response to the need for new research, the Board on Children, Youth, and Families formed an ad hoc planning committee to develop papers in conjunction with a workshop that would stimulate new thinking about adolescent risk and vulnerability. The papers and workshop sought to take a different approach to the high-risk behaviors of adolescents by defining and devising measurements for the burden of adolescent vulnerabilities, the interactions between risks and protective factors, total costs and benefits of interventions, evaluation of interventions, and how best to learn about different perceptions of risk by adolescents and adults. Authors also suggested when and how these new approaches could be applied to existing data sets and to designing new longitudinal and cross-sectional studies.

This volume describes the workshop, entitled Adolescent Risk and Vulnerability: Setting Priorities, which drew together experts with diverse scholarly and professional perspectives, ranging from health to economics, decision science, and psychology, in order to apply these multiple perspectives to improving the well-being and future prospects of adolescents in the United States. Each of the four papers presents a distinct approach to adolescent risk and vulnerability. They were prepared for, presented, and discussed at the workshop held at the National Academies on March 13, 2001.

In both the workshop and this volume, we hope to place adolescent vulnerability into perspective, taking advantage of the growing societal concern for adolescents, and the need to set priorities for investment of limited resources (Burt, 1998; Burt and Levy, 1987). With the best understanding that research allows, we can begin to assess how to intervene in the most effective and efficacious manner. The potential impact of research that can guide investments in adolescent development in both individuals and our society cannot be underestimated. Benefits may accrue even for those adolescents who do not experience a development program directly because peers who do participate become more focused and motivated in school, more engaged in their commu-
nities, and less involved in risk behaviors (Danziger and Waldfogel, 2000).

The workshop discussions served to bring the ideas in the papers together toward an integrated research approach for reducing adolescent vulnerability. The following provides brief summaries of the papers and the points made by discussants who reviewed each of them.

**Paper and Discussion Summaries**

*Perceptions of Risk and Vulnerability*, by Susan G. Millstein and Bonnie L. Halpern-Felsher, examines the beliefs underlying adolescents’ decisions, with particular attention to how to evaluate their competence. They find that, contrary to popular belief, the scientific literature does not support the notion that adolescents view themselves as uniquely invulnerable to harm; rather, their perceptions of invulnerability resemble those of the adults around them. This myth can distort programs and policies for adolescents by suggesting a level of incompetence that warrants more manipulative interventions and fewer opportunities for exploration and growth. Indeed, in some ways, adolescents show a deep sense of vulnerability, as when asked about their overall chance of premature death (Fischhoff et al., 2000).

The authors demonstrate the importance of adolescents’ risk perceptions for developmental theory, programming, and setting standards of decision-making competence (e.g., for making health decisions). They also describe the methodological issues facing such studies. Many have used hypothetical situations, which allow standardization across subjects, but may seem unrealistic to many. Others have asked for judgments of ambiguous events (Fischhoff, 1996; Halpern-Felsher et al., 2001), or used verbal quantifiers as response modes (e.g., the use of “very likely,” “likely”); for further discussion, see Biehl and Halpern-Felsher, 2001), making it difficult to evaluate the accuracy of the beliefs that are expressed. The paper makes the case for using more realistic situations in order to provide ecological validity. Doing so will make it easier to characterize the relationships between adolescent behaviors and the perceived risks and benefits of their actions. Those studies will have to consider the context within which adolescents evaluate their options. For example, if an adolescent does not believe that he or she will live beyond the age of 30, the risk of AIDS may have little influence on sexual behavior.

In their discussion of Millstein and Halpern-Felsher’s paper, both Richard Lerner and Ann Masten noted its potential for guiding program and policy innovations that will promote positive youth development. They pointed to the paper’s new and useful insights regarding how perceptions influence adolescents’ decision making about risky behaviors. They suggested research into adolescents’ perceptions relevant to improved decision making; developing an ecological perspective for understanding vulnerability; understanding (and combating) myths about adolescent vulnerability; and a continuing focus on positive youth development (Masten, 2001).

*Vulnerability, Risk, and Protection*, by Robert William Blum, Clea McNeely, and James Nonnemaker, presents a model for understanding the vulnerability of adolescents to undesirable outcomes, from the individual to the macro level. Using data from the National Longitudinal Study of Adolescent Health (Add Health), the authors applied the model to evaluating the effects of protective factors on risky behaviors, such as violence, cocaine use, and sexual intercourse. Meaningful interventions require understanding of the interactions and complexities of these processes. For example, school classroom management climate was proven to be a protective factor against weapon-related violence, but not against cocaine use. Effective policies and interventions must take into account the connections between vulnerability and protective processes.

Although the framework in the Blum et al. paper offers the possibility of identifying and reducing negative educational, social, and health outcomes that may mitigate several negative outcomes at once, and has potential for being quite productive, discussant Lloyd Kolbe was concerned that the complexity of the model might make it difficult to translate theory into practice. To take advantage of the strengths of the framework, he suggested using it to identify protective factors, relationships, and processes that seem particularly effective and enabling appropriate social institutions (e.g., public and private agencies, youth-serving organizations) to use underutilized protective factors in future interventions to help young people. Because the model demonstrates interaction of risk and protective factors in several areas, it could promote collaboration among educational, social service, and health agencies to reduce adolescent vulnerability and risk.

Kolbe identified future research opportunities, including articulating and measuring protective factors and monitoring them over time; and conducting longitudinal-cohort community-based studies, such
as Healthy Passages, of how variables evolve over time as well as intervention research determining whether these variables can be modified. Kolbe noted both the difficulty and the importance of such synthetic research.

According to discussant Beatrix Hamburg, the model presented by Blum et al. has potential to deal with complex interactions among variables, macro-level influences, and contextual specificity. What happens within a context (e.g., school), such as attendance or peer acceptance, contributes to the final outcome, even in a positive environment.

Among macrolevel variables, chronic disease is of special concern for the adolescent (Hamburg, 1982). A large and growing number of adolescents live with diseases such as cystic fibrosis, diabetes, asthma, and some cancers, all of which were once fatal at an early age. Now, due to medical advances, adolescents can live a long time with a disorder that can be treated but not cured. A disease and its treatment impose risks related to the developmental tasks of adolescence, such as establishing a positive body and self-image as well as peer acceptance, among other tasks. The specter of being permanently afflicted with damage and disability confers a substantial risk. As adolescents attempt to negotiate normative developmental tasks as well as demanding medical regimens, the risks imposed by chronic disease can lead to adverse outcomes in medical, emotional, social, and educational spheres. Parents often have little understanding or guidance in coping with these issues, and, at best, tend to become over-protective and anxious. Family conflict is common. For these reasons, adolescence is an especially vulnerable period for those with chronic illness. The Blum et al. model could help identify realistic approaches to reducing these risks and making best use of protective factors. The model also can be applied to data sources in addition to Add Health, among them Monitoring the Future and the Youth Risk Behavior Survey.

Modeling the Payoffs of Interventions to Reduce Adolescent Vulnerability, by Martha R. Burt, Janine M. Zweig, and John Roman, emphasizes that adolescents establish behavior patterns and activities such as smoking and sexual activity that affect their lifetime well-being. However, these long-term consequences can be ignored, leading to insufficient investment in adolescents, whose short-term morbidity and mortality are relatively low. Traditional methods for estimating costs of health risks and outcomes do not provide good assessments of all the costs and benefits—social, economic, and human. The paper presents models for estimating the full suite of economic payoffs for different types of policy actions. The models consider programs that involve interactions between youth and teachers, program staff, families, and others. They show how existing and new databases can be used to analyze associations between patterns of behavior and patterns of outcomes. The sectoral costs of these outcomes can then be quantified, along with opportunities to reduce those costs through interventions with different probabilities of success. Research applying these models more comprehensively should lead to better understanding of the public and private costs and benefits of different patterns of youth risk behaviors and of investments in youth.

These analyses make it less likely that population-based actions focusing only on a single issue (e.g., smoking) will affect the young people who need the most help, compared with more comprehensive and enduring interactions. In addition to identifying the best investments in adolescent development, such analyses also can show the overall payoff to policy changes focused on the well-being of young people.

The discussants for this paper, Susan Curnan and Peter Edelman, noted its usefulness as a framework that researchers could build, expand, and adapt in revitalizing thinking about costs and benefits related to adolescent vulnerability and resiliency. Rather than focusing on adolescents as the source of troubling behaviors that drain social and institutional resources, the Burt et al. model focuses on interventions that nurture youth as assets capable of producing economic and social benefits. Curnan described a recent concrete example of such a policy, the pending bill, Younger Americans Act (H.R. 17), which aims to create fully prepared youth rather than risk-free youth. If the act were implemented, the Burt et al. model could evaluate the payoffs from potential programs. Curnan also suggested expanding the approach to include biological and community/contextual influences when profiling risk and protective factors.

Edelman pointed out that the Burt et al. model
provides the ability to analyze multiple effects and interactions and could help shift intervention programs and their funding from single- to multiple-variable programs. It is thought to have potential for measuring the payoff of supporting positive youth development and improving the way we deal with adolescent vulnerability.

Adolescent Vulnerability: Measurement and Priority Setting, by Baruch Fischhoff and Henry Willis, begins by discussing adolescents’ legitimate concerns about their future and well-being, reflecting their concerns about their own invulnerability. They then consider how dealing effectively with adolescent vulnerabilities requires knowing their total burden as well as the size of the component parts. The former should shape the overall investment in reducing adolescent vulnerability, the latter its allocation across interventions. Priority setting for research and practice is discussed, including the important considerations of separating facts and values when making decisions about policies and actions. The paper presents approaches to determining priorities as well as ways to determine values relevant to the particular policy choices.

Although the paper argues for setting priorities systematically, it also recognizes the challenges to this approach, such as the difficulty of the choices being faced and the political barriers to translating priorities into change in resource allocation. The proposed procedure for priority setting allows for involvement of relevant individuals, including adolescents, and not merely summaries of their views. The authors emphasize that values shape the priorities we place on young people’s well-being and the procedures used to reach those priorities.

The main strength of the Fischhoff and Willis paper, according to discussants Matthew Stagner and Mark Cohen, is making transparent the assumptions, values, and uncertainties that are part of any process of risk assessment and prioritization. The paper draws attention to the multiple ways in which politics and value judgments are interwoven in the process of identifying, measuring, and creating intervention programs to address adolescent risk. In many cases, such as deciding what to measure in longitudinal studies, value judgments are the determining influence on how and where money will be spent. If choices are framed and evaluated in a scientific manner, the result should be priorities more in keeping with societal values. The Fischhoff and Willis paper offers a new way of examining how value judgments and scientific knowledge influence decision making about resources used to address adolescent vulnerability and risk. If a scientific knowledge base is available when opportunities such as public and political interest move in the direction of adolescent vulnerability, the possibility of having value judgments informed effectively by research is greater than if the research base is not present, according to Stagner. He also noted, in agreement with the other papers, the importance of developing indicators of positive development, pointing to the Federal Interagency Forum on Child and Family Statistics’ America’s Children initiative. Stagner also noted agreement with the other papers regarding creating community-specific priorities, reflecting the specificity of risks and values. The Fischhoff and Willis paper offers a way in which national and local resources might be addressed effectively to reduce adolescent vulnerability.

Mark Cohen noted the social and institutional challenges facing attempts to develop community consensus regarding which adolescent risk and evaluative factors to consider. Questions include who controls the agenda, how to select appropriate citizen participants, and how values will be combined in cases of conflict. In contrast, Cohen noted the economic approach of quantifying monetary value of those risks that can be compared across categories (Cohen, 1998). Doing so in an acceptable way could reduce the set of factors that need to be evaluated with alternative procedures capable of addressing nonmonetary concerns.

Integrative Summary

The prepared papers and ensuing discussion considered what is known, believed, and desired regarding adolescents’ welfare. These realities shaped proposals for better research, communication, and action. Although entitled “adolescent vulnerability,” the workshop necessarily considered the complementary and compensatory processes conferring resilience. The following themes emerged from the papers and discussions.

A Comprehensive Approach Is Needed

Looking at the full range of potential risk outcomes is essential to:

- Assess the full burden of vulnerability borne by youth and society (in terms of both direct suffering and lost potential);
- Ensure that disproportionate attention and re-
sources are not devoted to a few of the many potentially relevant issues; and

- Identify clusters of problems with common causes and solutions.

Looking at the full range of factors creating risk and resilience is essential to:

- Assess the full impact of dislocations in young people’s lives (e.g., poverty, violence);
- Assess the total contribution of interventions that might ameliorate root causes of multiple problems (e.g., creating more supportive schools, reducing social rejections, strengthening parenting skills); and
- Avoid domination by a subset of proposals.

A suite of measures of adolescents’ welfare is needed to:

- Consistently track their circumstances;
- Systematically compare teens in different groups; and
- Rationally direct future resources.

Adolescents Differ in Their Needs, Wants, and Circumstances

Recognizing the differences among young people is essential to affording them the respect they deserve. Sweeping generalizations about adolescents encourage the adoption of undifferentiated interventions, with the direct costs of wasting societal resources and undermining teenagers’ confidence in adults (who are ignoring significant aspects of their lives) and the opportunity costs of failing to develop better understanding and interventions.

Some adolescents face particular challenges worthy of special societal attention. These include adolescents suffering from chronic diseases, belonging to disadvantaged and disenfranchised groups (e.g., migrants, Native Americans), or dealing with psychological conditions having broad effects (e.g., depression, eating disorders).

Even within difficult situations, adolescents often find strengths in themselves and sympathetic others. Even adolescents from favored groups often experience extreme stresses (e.g., peer rejection, family disintegration). As a result, helping them may be a matter of tipping the balance in their lives, rather than creating wholesale changes in their circumstances.

Careful Research Matters

Without solid research, priorities will be set on the basis of anecdote, supposition, and prejudice. One task of research is to evaluate beliefs that are widely maintained but empirically unsupported. It cannot, however, dissuade supporters of programs that are ends in themselves (e.g., because they provide resources or a livelihood to those who administer them; because their existence expresses a social value, whatever its effects on young people).

Disentangling the interplay of risk and resilience factors requires longitudinal studies with well-selected measures and diverse samples. Properly managed and coordinated, they can provide a uniquely valuable public resource.

Effective research requires measures well matched to theoretical concepts. That applies when measuring adolescents’ behavior, environmental circumstances, or beliefs, as well as beliefs about adolescents. For example, little can be concluded from many studies of risk perceptions because their questions are insufficiently precise for responses to be compared with statistical estimates of risk.

Research Must Be Communicated Effectively

Social policy and attitudes toward adolescents reflect people’s beliefs about them. Often these beliefs are unfounded (e.g., adolescents have a greater sense of personal invulnerability than do adults). Such beliefs can be confronted in ways that improve public understanding of young people’s vulnerability and resilience, as well as the processes shaping them.

The workings of the research community can create an unbalanced picture of adolescents, even when its results are communicated accurately. Teenagers often are studied because they face or pose problems in society. As a result, they can be unduly seen as threatened or threatening. Moreover, that research often is focused on a single problem behavior or risk factor, encouraging sweeping generalizations and simplistic solutions. Countering a fragmented view of adolescents requires either aggregating limited studies or focusing on comprehensive ones.

Many different groups and individuals are concerned with adolescents’ welfare. They include parents, teachers, legislators, funders, and the young people themselves. Taking best advantage of available research requires summarizing its results, implications, and robustness in terms relevant to specific audiences. Due diligence in communication means
empirically evaluating its impacts in order to ensure that it is understood as intended.

Deliberative Social Mechanisms Are Needed to Set Priorities

Sound analytical procedures are increasingly available to characterize many aspects of adolescent vulnerability. Applying these procedures more widely would provide disciplined estimates of statistics that people otherwise try to assess intuitively.

Even the most accomplished economic or risk analysis provides an imperfect estimate of a portion of the issues potentially relevant to decisions about adolescents. Moreover, the specification of such analyses inevitably requires the exercise of judgment, regarding both how to treat uncertain data and how to focus on target issues and populations. As a result, formal analyses can inform, but not determine, social choices.

Interpreting analytical results, and integrating them with other concerns, requires deliberative processes. These can create communities of concern and shared understandings (including focused disagreements) among those concerned about adolescents.

Concluding Thoughts

As a society and as individuals, we face challenges and opportunities in providing a better future for our adolescents. The papers and discussions of this workshop have, we hope, advanced our point of departure for the work that lies ahead in setting and acting on priorities.

References


