Community Factors That Correlate with Middle-Adolescent Antisocial Behavior

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COMMUNITY FACTORS THAT CORRELATE WITH MIDDLE-ADOLESCENT
ANTISOCIAL BEHAVIOR

by

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ABSTRACT

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Many adolescents nowadays display antisocial behavior. A large number of theories explaining origin of antisocial behavior have been developed in the last several centuries. The current study utilizes the "ecological" theoretical framework that allows the researcher to consider multiple ecological systems in which individuals operate and to focus on the community factors influencing antisocial behavior.

The researcher used part of the Prevention Needs Assessment survey to identify which community risk and protective factors correlate with middle-adolescent antisocial behavior. Analysis included intercluster, cluster-item correlations, and partial correlations. Results indicated correlations between antisocial behavior and a number of community risk factors, and a relationship between antisocial behavior and language (but not ethnicity) of the individual. None of the protective factors were found to be present in this study.
I would like to thank Drs. Eric Gee and Thomas Shuster for making available to me the Spectrum Consulting LLC data set for the research in this thesis and for their recommendations and willingness to help. I would especially like to thank Dr. Steve Lehman, my chair, for his understanding, support, and guidance; Dr. Martha Dever for her useful comments; my parents, Lyudmila and Nikolay, my husband, Aleksey, and my brother, Vasily, for their faith in me; and my good friend, Matthew Shalala, for his advice and patience.

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INTRODUCTION

Many adolescents today demonstrate antisocial behavior. Over 10,000 students bring weapons to school each day in the United States, and each year 40 are killed or wounded by these weapons (Walker et al., 1996). Adolescent violence has accelerated significantly in the last few decades. Twenty-two percent of American students will not use school bathrooms for fear of assault, and more than 6,000 teachers are threatened every year (Walker). Increasingly, children are coming from homes where antisocial behavior is tolerated. (For a definition of antisocial behavior, see Appendix A.) These youth enter school with the belief that violence is the solution to conflict. As Moseley (1999) pointed out, these adolescents are convinced that the actions of others are biased against them personally and this distorts their ability to correctly interpret any behavior. As a defense these children tend to act aggressively.

Historically, the issue of adolescent antisocial behavior has been discussed by many scientists and many theories have been developed to explain the origins of such behavior (Shoemaker, 1996). Such theories have included biological and biosocial explanations, interpersonal and situational explanations, psychological theories, social disorganization and anomie theories, low-class-based theories, control theories, labeling theory, and radical theory. This research first reviews the main literature on this question, points out weaknesses in existing research, and then, suggests a new study of community factors correlating with middle-adolescent antisocial behavior that avoids the methodological limitations of existing research, while systematically incorporating variables not previously addressed.
REVIEW OF LITERATURE

To better understand the problem of adolescent antisocial behavior, this study starts with a review of the major risk factors of adolescent antisocial behavior, followed by a summary of previous research on the topic. The summary consists of a discussion of various approaches to studying youth delinquency. Next, these approaches are logically grouped into six major research models. Such grouping helps underscore the main strengths and weaknesses in previous and current research. The review concludes with an examination of the four research designs used most often in the studies of adolescent delinquents.

The Major Risk Factors of Antisocial Behavior

The search for the causes of delinquency has covered several centuries and numerous viewpoints. Previous research has focused on three broad categories of risk factors: (a) individual (mostly addressed by “biological” type of approaches), (b) family/societal (community), (c) and school based (see Appendix A for a more detailed description). The last two risk factors formed the “social” theoretical frameworks. Individual risk factors have included impulsivity, exposure to violence and abuse (as either a victim or a witness), alcohol and drug abuse, and other factors (Gottfredson, McNeil, & Gottfredson, 1991). Family/societal risk factors have included poor parental and/or community supervision and monitoring, low community attachment, and community disorganization (Gottfredson et al.). School-based risk factors have included lack of commitment to school, and early aggressive behavior in Grades K-3 (Gottfredson et al). These three risk factors predisposing antisocial behavior provided the basis for theoretical approaches attempting to explain the cause of antisocial behavior itself.
The major directions of research on adolescent delinquency have been biological and social. For example, an individual risk factor would be the one predisposing delinquency from biological theoretical framework that focused mostly on personal inherited characteristics of the delinquent. The biological approach suggested that delinquency was a product of internal physical properties of the individual. These properties can, at least, predispose one to criminality (Eysenck, 1977; Murray, 1976). In contrast, societal and school-based factors formed the social approach, and the mixed theoretical framework attempted to combine all three factors in its explanation.

The social approach can be classified into four major positions that include: (a) social disorganization/social theory; (b) interpersonal, situational and cultural theory; (c) labeling theory; (d) radical theory; and (e) social development model. While social disorganization/social theorists considered personal and situational influences, they believed the dominant factor to be social (Durkheim, 1933; Merton, 1957; Shaw & McKay, 1938). Interpersonal, situational, and cultural theorists assert that human behavior, including delinquent behavior, is flexible and not fixed. These theorists suggest that behavioral inclinations change according to circumstances or situations (Matza & Sykes, 1961). Labeling theorists believed that the initial acts of delinquency were caused by a wide variety of factors, and the primary factor in the repetition of delinquency was the result of having been formally labeled as a delinquent. These theorists believed such labels eventually altered a person's self-image to the point where the person began to identify himself as a delinquent and acted accordingly (Lemert, 1951; Tannenbaum, 1938; Thrasher, 1927). Radical theorists argue that most behavior is the product of a struggle among classes within society (Sykes,
Social development model views both antisocial and prosocial behaviors as products of the interaction between the individual and the environment (Catalano & Hawkins, 1996; Hawkins & Weis, 1985). This theory has a special emphasis on protective factors to antisocial behavior. To prevent and stop antisocial behavior one needs not only to know the risk factors to delinquency, but also what factors protect children against becoming objects or subjects of antisocial behavior. Previous research (Durlak, 1998; Hawkins, Catalano, & Miller, 1992) has pointed out that protective factors such as social bonding and academic achievement, promoting norms of nonviolence, teaching skills for living according to nonviolent norms, and eliminating weapons/firearms tend to decrease antisocial behavior.

Beyond the aforementioned main biological and social approaches, some mixed theoretical frameworks have attempted to combine various aspects of social approaches as well as biological aspects. These mixed theoretical frameworks can be classified into three main approaches: (a) control, (b) psychological, and (c) lower-class-based theories. Control theorists argued that delinquency should be expected if one considers all the pressures to which most juveniles are exposed (Emprey, 1982; Hirschi, 1969). Such inducements toward delinquency included negative family and societal experiences, lowered ego, weakened or faulty socialization. Psychological theorists agreed that environment influenced the individual, but they emphasized that it was the individual who had the problem and it was, thus, on the individual that one focused if the problem was to be resolved (e.g., Freud, 1927). Lower-class-based theorists suggested that poor school performance of a relatively high number of lower-class youth (males in particular) was mostly attributable to a conflict between the dominant middle-class values of the school system and the values of lower-class youth (Cohen, 1955).

Of all the approaches, social disorganization theory is represented best in the literature. Shaw (1930) and Shaw and McKay (1938, 1969), two sociologists of the early to
mid-twentieth century, were the first to work on the connection between social
disorganization and delinquency. Shaw, and later McKay, produced a number of books and
reports that described the distribution of delinquency rates in Chicago and also discussed the
processes that developed delinquent values. Their work culminated in a detailed
investigation of delinquency rates in Chicago covering a period over 30 years, as well as
descriptions of the distribution rates in 20 other American cities. This work has also been
revised and the data through mid-1960s were included (Shaw & McKay, 1969). The results
of Shaw and McKay’s research showed that the rates of delinquency tended to decrease as
one moved from the zones located at or near the central business district outward to the
commuter’s zone. This pattern was replicated for all three time series under investigation
(1900-1906, 1917-1923, and 1927-1933). Although changes in areas or neighborhoods
occurred during the three time periods, 75% of the neighborhoods with the highest
delinquency rate in 1900-1906 were among the highest delinquency areas in 1927-1933, with
total correlation of .61 between the two time periods.

The empirical and theoretical work of Shaw and McKay has generated a substantial
amount of literature in the field of delinquency (Finestone, 1976). This work also generated a
rather successful delinquency intervention program, the Chicago Area Projects, which have
been operative for over 60 years (e.g., Finestone). However, the data and conceptualization
surrounding the work and Shaw and McKay have not been without critical comments.

One of strongest criticisms of social disorganization as an explanation of antisocial
behavior is that it tends to downplay the significance of ethnic and cultural factors. The
replication of Shaw and McKay’s work in different countries has generally supported their
contention that delinquent rates are highest in areas with economic and demographic decline
or instability (DeFleur, 1967; Morris, 1958). Such research, however, has not duplicated the
American findings of decreasing rates from the center of the city outward. In Argentina, for
example, the highest rates of delinquency have been found in peripheral sections of the city, partly because the wealthy often live near the center of the city, while the poorer areas of the city are found near its outskirts.

Using self-report measures of delinquency, Johnstone (1978) noted that it was not the lower-class neighborhoods in Chicago that had the highest rates of delinquency. Rather the most delinquent youth were those who were classified as lower class but who lived in "middle- or high-status communities rather than in the heart of a slum area" (p. 65).

Another question about the conclusions of Shaw and McKay concerns the extent of nondelinquency in "delinquency areas" (Stark, 1987, p. 904). Certainly, it is unrealistic to expect a theory to explain all cases of a phenomenon. Thus in the past 18 years we have seen the publication of the three major works (Elliot et al., 1996; Sampson & Groves, 1989; Simcha-Fagan & Schwartz, 1986), which clearly indicate that the social disorganization perspective continues to develop in modern delinquency studies.

In 1986, Simcha-Fagan and Schwartz published the results of their attempt to measure social disorganization on a large scale. The scientists based their research on a study of 553 adolescent males residing in 12 New York City neighborhoods. In addition to collecting census materials for each of the neighborhoods, Simcha-Fagan and Schwartz also administered survey questionnaires to each of the adolescents and their mothers. The researchers included survey items that were directly analogous to those of a social disorganization approach including the extent of informal neighboring, the level of neighborhood attachment, the size and breadth of local networks, neighborhood organizational involvement, and the extent of local personal ties. The results indicated that different factors affected general self-report delinquency versus official (arrest) or serious self-report youth crime, at the neighborhood level. In the case of the former, rates of organizational participation in the neighborhood and level of residential stability were
important correlates. With respect to the other measures of delinquency, however, only one neighborhood condition exerted any significant effect, and that was the presence of disorder or a criminal subculture. At the neighborhood level, these results tend to support the social disorganization theory of delinquency, but change and specify the theory depending on the type of the delinquency itself.

Sampson and Groves (1989) reported additional evidence that supports social disorganization theory, although, by their own admission, their measures of community were only approximations of the concepts suggested by Shaw and McKay (1969). Using survey responses of nationwide samples of people aged 16 and over in England and Wales, Sampson and Groves determined crime rates of specific communities and neighborhoods. An interesting feature of this study is that it measured crime by participants’ self-reports about their own criminal acts, as well as by their indications of the extent to which they had been victimized by criminal behavior.

Overall, Sampson and Groves (1989) found that crime rates were lower in areas characterized by higher friendship ties in a locality, higher levels of participation in organizations, and greater control of teenage groups. These factors were considered indications of social organization; thus, their relative absence suggested social disorganization. However, these concepts (the same as in Simcha-Fagan and Schwartz study) are only approximations of community structure. In fact, in some cases they were measured by responses to just one statement.

Additional information, which conflicts with the previous findings on this issue, was provided by Gottfredson et al. (1991). Their research was based on self-report estimates of delinquency among purposive, predominantly minority samples of youth in Baltimore, Maryland, Kalamazoo, Michigan, Christiansted, St. Croix, and the Charleston, South Carolina metropolitan areas. Gottfredson et al. found that social disorganization contributed
little in the way of direct influence on delinquency, explaining perhaps 1-2% of the variation in individual rates of delinquency (p. 221). Rather, the greater impact of social disorganization was found in the effects of neighborhood organization on more proximate contributions to delinquency; that is, social bonds (to parents, the school, and the community) and peer influences. Furthermore, among males in the sample, living in more affluent areas was correlated with higher rates of delinquency, particularly property offenses. Gottfredson et al. suggested that delinquency was more common in affluent neighborhoods because that was "where the money is," so to speak (p. 218), which made such property offenses possible.

In summary, the theory of social disorganization, as principally developed by Shaw and McKay (1938), had merit in that it had pointed to social causes of delinquency that seemed to be located in specific geographical areas. In this sense, the theory made a contribution to an understanding of delinquency/antisocial behavior. In overviewing social disorganization theory, Bursik (1988) concluded that, although generally accurate, the theory was incomplete. He suggested that social disorganization as an explanation of antisocial behavior offered a good starting point, but left questions as to other possible factors, such as individual, cultural, ethnic, or sociopsychological factors. The research sought to expand the social disorganization framework to include cultural and ethnic influences on delinquency. This required more complex models for studying antisocial behavior.

Research on Effects of Neighborhood/Community Influence
Towards Adolescent Development

The growing dissatisfaction that recent theories were not broad enough caused Jencks and Mayer (1990) to categorize the theoretical frameworks into five broader models for understanding how community might affect child development. Thus, many scientists are
currently framing their research on community influences on behavior (and especially adolescent development) using one of the following models.

1. **Neighborhood institutional resource models.** This model argues that neighborhood resources may affect children through police presence and access to resources that provide stimulating learning and social environments, such as parks, libraries, and community centers, as well as community services that promote healthy development. These models (e.g., control theory) are characterized by addressing the social organization issues, but underestimate cultural, ethnic, and some psychological factors of delinquency, especially the opportunities and rewards for prosocial involvement.

2. **Collective socialization models of neighborhoods.** This model argues that neighborhood influences affect children by means of community social organization, including the presence of adult role models, supervision, and monitoring, in addition to structure and routines. Contrary to the neighborhood institutional models, these models (e.g., social disorganization theory) discuss rewards and opportunity for prosocial involvement, as well as draw our attention to importance of parental role model. However, the same criticism may be applied to collective socialization models, in that they contain too little information on ethnic and cultural issues in delinquency.

3. **Contagion (or epidemic) models.** Contagion models argue that the negative behavior of neighbors and peers strongly influences the behavior of others. A strength of contagion models is their emphasis on a peer-interaction factor, as well as attention to the parental role model. But conceptualizing the neighborhood context as a risk factor, however, overlooks a long tradition of research suggesting the importance of examining the individual-environment interaction rather than the more simple main effect models for the individual or environment alone.
4. Models of competition (e.g., radical and neoradical). Competition models argue that neighbors or peers compete for scarce community resources, are well formulated in terms of discussing influences of social structure, peer interaction and economic factor towards delinquency, but underestimate importance of cultural, ethnic, transition, and mobility factors that may influence antisocial behavior among adolescents.

5. Relative deprivation models. Relative deprivation models argue that neighborhood conditions affect individuals by means of their evaluation of their own situation relative to neighbors and peers. Such models (e.g., anomie) take into account peer interaction, transition, and mobility factor, but overlook such important problems as perceived availability of drugs, rewards, and opportunities for prosocial involvement.

Bronfenbrenner (1989) pointed out a sixth type of "ecological" model, which displays a more contextual framework. Ecological models (most appropriate for this research) view individuals in the context of environment, or ecological systems—the nuclear family, extended family, peer group, neighborhood, community, and institutions such as school or the workplace (Aber, Gephart, Brooks-Gunn, Connell, & Spencer, 1997; Brooks-Gunn, Duncan, Klebanov, & Sealand, 1993). Proponents of ecological models base their argument on the premise that individuals cannot be studied without a consideration of the multiple ecological systems in which they operate. Current research utilizes this model, allowing us to cover most of the issues overlooked by previous researchers, including cultural, ethnic, transition and mobility issues, rewards and opportunities for prosocial involvement.

Approaches to Designing Neighborhood/Community Studies

There are four major experimental designs that have been used within the aforementioned models. In their review of the previous studies of factors influencing youth antisocial behavior Leventhal and Brooks-Gunn (2000) stated that the four designs were (a)
national or multisite large studies, (b) city or regional studies, (c) neighborhood-based designs, and (d) experimental or quasi-experimental designs. A description together with information on relative strengths and weaknesses of these approaches follows:

1. National or multisite studies of individuals or families. Multisite studies usually include a large range of socioeconomic statuses (SES) and incomes across families and neighborhoods and allow researchers to estimate neighborhood effects on the basis of a few individuals or families per neighborhood. Unfortunately, this type of research is very time consuming and expensive.

2. City or regional studies. Regional studies look at neighborhood effects within a city or metropolitan area. A wide range of neighborhood types are included in some studies, while in others researchers only focus on one or two types of neighborhoods. Given that across these studies, the number of children per neighborhood varied widely as did the number of neighborhoods, it creates problems choosing the right type of analysis, because implementing hierarchical or multilevel modeling assumes that neighborhood residence is not independent (or unique) across study participants. Therefore, other type of analysis needs to be used if this design is applied.

3. Neighborhood-based design. Unlike the first two approaches, neighborhood-based design approach focuses on neighborhoods in the initial design. The sampling is conducted to ensure that certain types of neighborhoods are included, as well as a range of neighborhoods that are representative of some target population of neighborhoods. Unfortunately, this design is not applicable to some countries and cultures. This especially refers to those cultures or countries that tend to have different characteristics for the same neighborhood (see previous criticisms of Shaw and McKay studies).

4. Assignment to random neighborhoods designs. In random neighborhood studies families are randomly assigned to reside in particular types of neighborhoods. Although this
strategy may seem implausible, housing policies, such as housing mobility programs, afford researchers the opportunity to examine how a change in neighborhood context influences children and youth. The biggest limitation to these type of designs is that they are very time and money consuming because housing mobility programs generally involve relocating residents from one neighborhood to another (e.g., families living in public housing in poor neighborhoods are being relocated to other, less poor neighborhoods). This also poses the question if it was even possible to assign the participating families randomly.

All these designs assess neighborhood effects on childhood/adolescent behavior, and all have been used by researchers from different theoretical frameworks, especially from the "mixed" and "social" (including "social disorganization") perspectives. With respect to national and regional designs, stronger and more consistent neighborhood effects have been documented in the national and multisite studies than in the regional and city-based studies. However, for many community factors there was little evidence given as to what community factors correlated with antisocial behavior. Some issues, such as ethnic, cultural, sociopsychological, and individual concerns, were given little attention, a fault that will be addressed later in this thesis. The current study utilized the "city/regional" design, because it enabled the inclusion of various neighborhoods.

Conclusions to the Review of the Literature

There are three groups of risk factors to antisocial behavior among adolescents. These factors include school-based, family/societal-based, and individual-based issues. Most researchers agree that studying community and societal influences on youth is crucial in understanding the reasons of antisocial behavior, as well as future methods of intervention. This study focused on family/societal risk factors, and to some extent on school-based risk
factors. They were addressed by assessing such issues as community disorganization, level of neighborhood attachment, mobility, prosocial involvement, and other elements.

Social disorganization theory, a social approach, has been the most popular theoretical framework for many decades and addressed community disorganization, transition, and mobility variables. Variables most often used previously measured community disorganization (Ennet, Flewelling, Lindrooth, & Norton, 1997; Kupersmidt, Griesler, DeRosier, Patterson, & Davis, 1995, Sampson & Groves, 1989; Shaw & McKay, 1938; Simcha-Fagan & Schwartz, 1986) and transition and mobility (Ennett et al., 1997; Logan & Spitze, 1994; Sampson & Groves, 1989; Shaw & McKay, 1969). Other important variables, such as low neighborhood attachment, laws and norms favorable to drug use, perceived availability of drugs and handguns, were not examined in detail (Ennet et al., 1997; Gonzales, Cauce, Friedman, & Mason, 1996; Sampson & Groves, 1989) and deserve attention. For this reason, the proposed research will include low neighborhood attachment, laws and norms favorable to drug use, perceived availability of drugs and handguns. And though the current research focuses mostly on risk factors to antisocial behavior, it also attempts to address some of the protective factors that have been overlooked previously such as opportunities and rewards for prosocial involvement.

While social disorganization theory examines a number of important variables, it fails to consider the context surrounding an individual’s behavior. The new “contextual” approach seems to better address the issue of community factors influencing youth delinquency and provides a very important perspective of an individual by taking into account the context of environment of such a person. This approach addresses other important variables (e.g., opportunities and rewards for prosocial involvement, laws and norms favorable for drug use) that depend on the environmental context of an individual under study. The “ecological”
approach focuses on a “city or regional study” design, which enables investigation of neighborhood effects within a metropolitan area.
THE STUDY

Purpose and Objectives

Context of Current Study

It is important to study the community to understand the drug, violence, and school safety problems. Over the past 10 years, the Salt Lake City area of Utah has undergone significant changes. What was once a relatively stable, middle-class community has rapidly changed into a more transient and economically challenged surrounding (Utah Department of Public Safety, 2000). These changes have impacted school cultures and norms, as well as students’ needs, and have caused school administrations and teachers to look for newer and better programs that would relate to the recent shifts and changes. There is a particular interest in creating safer neighborhoods, violence- and substance abuse-free environments that enhance student achievement and development.

Middle school students in Salt Lake County reside in neighborhoods with increasing antisocial behavior (as evidenced by increased gang activity). According to the Salt Lake Area Gang Project (Utah Department of Public Safety, 2000), 778 juvenile and 3,668 adult documented gang members reside in these neighborhoods. The number of documented gang members in this area has grown from 1,438 in 1991 to 4,446 in 1998—an increase of more than 300% in just 7 years. These numbers represent *documented* gang members, and the numbers are substantially higher if other categories of gang association are included. The proximity of 10- to 15-year-old middle school students to gang members and gang activity places them at risk for recruitment. Juvenile crime and violence has also increased. In Salt Lake County in 1997, there were 585 life-endangering felonies, 1,860 other types of felonies, and 18,749 misdemeanors perpetrated by juveniles (age 17 and under). These numbers represent substantial increases in juvenile crime rates, especially violent crime, when viewed
over the past decade (Utah Kids Count, 1999). Finally, drug use and drug crimes have increased 200% from 1997 to 1998 (Utah Department of Public Safety, 2000).

Compounding the matter, the Salt Lake community lacks awareness of the existing problem. As is true for the most of the Mountain West, the residents do not realize, or choose to ignore, that their community is plagued with the problems that they consider exist only in the large urban centers (Utah Department of Public Safety, 2000).

**Objectives**

Because of increasing gang involvement, there is a growing need to understand factors that predict antisocial behavior so that programs can be effectively implemented and evaluated. Training and coordination of anti-gang programs and strategies in the community are needed to reduce the influence of gangs on children. This research can inform these community-building interventions.

**Research Questions**

The following questions/subquestions were addressed by the current research. The broad question was: What community factors correlate with middle adolescent antisocial behavior?

The more narrow research questions included:

1. Does low neighborhood attachment correlate with middle adolescent antisocial behavior? Findings of the prior research on the low neighborhood attachment were conflicting (Gottfredson et al., 1991; Sampson & Groves, 1989; Simcha-Fagan & Schwartz, 1986); however, the current study did not expect the correlation in this matter because the current research was guided by the assumption that middle adolescents may be more concerned with peers' attachment, and, consequently, schoolmates attachment rather than neighborhood attachment.
2. Does community disorganization correlate with middle adolescent antisocial behavior? Previous studies showed positive correlation of the community disorganization cluster with middle adolescent delinquency (Ennett et al., 1997; Kupersmidt et al., 1995; Sampson & Groves, 1989; Shaw & McKay, 1938; Simcha-Fagan & Schwartz, 1986). The current study was guided by the same assumption.

3. Do transition and mobility factors correlate with middle adolescent antisocial behavior? Based on prior research, we expected transition and mobility cluster to be positively correlated with middle adolescent antisocial behavior (Ennett et al., 1997; Logan & Spitze, 1994; Sampson & Groves, 1989; Shaw & McKay, 1938).

4. Do laws and norms favorable to drug use correlate with middle adolescent antisocial behavior? Previous studies showed positive correlation of the laws and norms favorable to drug use cluster with middle adolescent delinquency (Ennet et al., 1997; Gonzales et al., 1996; Sampson & Groves, 1989). The current study was guided by the same assumption.

5. Does perceived availability of drugs and handguns correlate with middle adolescent antisocial behavior? Based on prior research, we expected perceived availability of drugs and handguns to be positively correlated with middle adolescent antisocial behavior (Ennet et al., 1997; Gonzales et al., 1996; Sampson & Groves, 1989).

6. Do opportunities and rewards for prosocial involvement correlate with middle adolescent antisocial behavior? Previous research has not addressed this question and the current study did not expect the positive correlation in this matter, because middle adolescents may have a skewed perception of accepted and rewarded behavior in their community, mostly due to their peer relationship patterns.

7. Do differences in primary language or ethnicity correlate with middle adolescent antisocial behavior? Previous research has rarely addressed this question. However, one
could argue that if the primary language is not English, it may lead to alienation from the broader community and to higher rates of delinquency. We also suspected that if ethnicity is not the same as the broader community, it may lead to marginalization that may lead to higher rates of delinquency. An “ecological” approach seemed to be the most suitable to address the above mentioned problems and tasks.

Procedures

The proposed research was primarily grounded in an ecological/contextual theoretical perspective and assessed the role of the changing environment and its influence towards youth behavior problems.

Existing data collected in 2001 (as a part of the Granite ROCK SOLID Project, funded by a federal government grant) by Spectrum Consulting LLC was used to investigate the research question of this study.

Population and Sample

Four hundred ninety-six students from X Junior High School (Salt Lake County, Utah) participated in the survey. Participants ranged in age from 12 to 16 years old, with 88% 13 to 15 years old. Male and female students were equally represented in the sample (50% each). Fifty percent of students were Caucasian, 20% Hispanic, 10% Asian, and 20% other ethnic origins. Most of the respondents used English as a language spoken at home (76%), 14% used Spanish, and 10% used other languages. Thirty-five percent lived in a single-parent home, and 61% had at least one sibling. Participants of the study were able to withdraw from it at any time without consequence. The students answered the questionnaire at school and received incentives for participation (a candy bar). One dollar was given to parents for signing a consent form.
Design

The questionnaire measuring various community factors influencing antisocial behavior was administered to participants (see Appendix B for the survey items). To answer the first research question (low neighborhood attachment cluster), the survey included items about students' attitude towards the neighborhood they live in (e.g., if they would miss it and if they would want to get out of it). To answer the second research question (addressing community disorganization), students were asked to help in describing the neighborhood they lived in and if they felt safe there. For the third question, transition and mobility, they answered items about whether there had been a change in their school and home (and how often). To study laws and norms favorable to drug use (fourth question), the students were asked to evaluate how wrong it was to use drugs, drink alcohol, and smoke cigarettes. This section also contained questions asking about the possibility of being caught if the student was engaged in such antisocial behavior. Questions about perceived availability of handguns and drugs were designed to help answer the fifth research question. The sixth question will be answered by measuring the possibilities for prosocial involvement (e.g., sports teams, scouting, service clubs, etc.). In order to study the rewards for prosocial involvement (and answer the seventh research question), the items asking about availability of adults, who would be proud of a child if he/she did something good, will be used. The seventh question (which addressed differences in ethnicity and primary language) will be answered by looking at the participant's information about language used at home, his/her ethnicity, and his/her delinquency level.

Data and Instrumentation.

As a result of the previous research in this area the following issues were identified as major concerns of teachers and parents: intimidating and bullying, fighting, tobacco and
marijuana use, relationships with caring adults at school, truancy/absenteeism, and depression. This formed the development of the survey questionnaire and gave a starting point for questionnaire development. But information that would cover more areas was needed, so to better assess the problem the area of interest was divided into eight clusters, which paralleled findings from previous research: (a) low neighborhood attachment, (b) community disorganization, (c) transitions and mobility, (d) laws and norms favorable to drug use, (e) perceived availability of drugs, (f) perceived availability of handguns, (g) opportunities for prosocial involvement, and (h) rewards for prosocial involvement.

The questions were prepared according to these clusters. Additionally, outcome items were included in the instrument. These items showed which antisocial actions were undertaken by subjects of the study (for example, if the student used illegal substances).

To maintain confidentiality the surveys were kept in a locked file cabinet.

Validation and Reliability Analysis of the Instrument

The instrument (Prevention Needs Assessment survey—PNA) was developed in the context of the multistate study and was funded by the Center for Substance Abuse Prevention (CSAP) and State of Oregon Office of Alcohol and Drug Abuse Prevention. It was designed by Developmental Research and Programs, Inc. and Social Development Research Group to (a) comprehensively assess a full set of empirically derived risk and protective factors measurable by survey methods across the domains of community, school, family, peer, and individual as well as a range of health and behavior outcomes including substance use, violence, delinquency, misbehavior; (b) be easily administered within a school setting during one class period (approximately 50 minutes); and (c) be appropriate for adolescents ranging in age from 12 to 18 to allow assessment of changes in risk and protective factor exposure during adolescence.
The PNA survey development and validation process had five stages: (a) formation of the item pool, (b) cognitive pretesting, (c) pilot testing of the survey items, (d) construction of the final instrument using data from an Oregon state-wide probability sample of public school children in Grades 6, 8 and 11, and (e) validation of risk and protective factor clusters. Survey items were grouped into 32 risk and protective factor clusters. A two-phase factor analysis was used to assess the risk and protective factor clusters. As a result, about 5% of the students were identified as providing invalid answers by one or more of these strategies.

Three strategies were used to identify and eliminate students from the data set who provided responses of questionable validity. The first strategy assessed evidence of dishonesty via responses to two questions. In the first question, students were just asked how honestly they responded. In the second question the students were asked about their use of "Derbisol," a fictitious drug (Moskowitz, Schaps, Condon, Malvin, & Martin, 1979). The second strategy identified students reporting unrealistically frequent use of illegal drugs other than marijuana, which was defined as 120 or more uses of these illicit drugs in the past 30 days. The third strategy identified students reporting logically inconsistently with regards to usage of multiple substances (such as, use in the past 30 days but not use in the past year).

In addition, analyses of scale reliabilities using Cronbach’s alpha were conducted. All clusters, except for the “opportunities for involvement in school and high family conflict,” averaged reliabilities greater than .60 for the entire survey, but in the community factors part, the reliabilities averaged greater than .70. For all other clusters reliability values did not vary substantially across grade level or gender, in spite of the relatively small number of items included in each cluster.
RESULTS

Presence of Protective and Risk Factors

Descriptive statistics (e.g., percentages, means, medians, and standard deviations) were computed for indications of correct coding and data entry, as well as for identifying how the sample has distributed itself on the response alternatives for the questionnaire items. This helped to identify whether protective or risk factors were present in the given sample of students.

Criteria for considering a risk or protective factor as salient was more than one third of respondents responding in the positive or the negative to at least one third of the items associated with the protective or risk factors. This meant that a substantial number of students saw a problem in a certain factor area. Table 1 shows results of this stage of the analysis.

Only a few risk factors were found at this stage of analysis. On one hand, those that were present pointed to a large number of students that were at risk for drug use even though the majority were not using drugs at the time. On the other hand, data suggested that protective factors were largely absent from the population.

Inspection of descriptive statistics for indications of correct coding and data entry revealed no problems.

Correlations

Correlations between items and clusters of items in the instrument were conducted to identify systematic relationship between clusters and cluster items. Also partial correlations were conducted for language and ethnicity to identify if partialing out one variable would substantially influence outcomes with the other variable.
Table 1

Community Factors Associated with Middle Adolescent Antisocial Behavior

<table>
<thead>
<tr>
<th>Factor description</th>
<th>Factor present?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk factor</strong></td>
<td></td>
</tr>
<tr>
<td>Low neighborhood attachment</td>
<td>No</td>
</tr>
<tr>
<td>Community disorganization</td>
<td>No</td>
</tr>
<tr>
<td>Transition and mobility</td>
<td>Yes</td>
</tr>
<tr>
<td>Laws and norms favorable to drug use</td>
<td>Yes</td>
</tr>
<tr>
<td>Perceived availability of drugs</td>
<td>Yes</td>
</tr>
<tr>
<td>Perceived availability of handguns</td>
<td>No</td>
</tr>
<tr>
<td><strong>Protective factor</strong></td>
<td></td>
</tr>
<tr>
<td>Opportunities for prosocial involvement</td>
<td>No</td>
</tr>
<tr>
<td>Rewards for prosocial involvement</td>
<td>No</td>
</tr>
</tbody>
</table>

Intercluster Correlations

Pearson $r$ correlation analysis was conducted to identify systematic relationships among the cluster items (Table 2), outcome items (Table 3), and demographic information (language and ethnicity).

As predicted, antisocial behavior correlated positively with four clusters: community disorganization, transition and mobility, laws and norms favorable to drug use, and perceived availability of drugs and handguns. However, contrary to predictions, laws and norms favorable to the drug use cluster correlated negatively with antisocial behavior. So, the correlation between antisocial behavior and all items that formed the "laws and norms" cluster was conducted (see Table 3 for details).
Table 2

*Intercluster Correlations*

<table>
<thead>
<tr>
<th>Clusters</th>
<th>Antisocial behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood attachment</td>
<td>.003</td>
</tr>
<tr>
<td>Community disorganization</td>
<td>.370 *</td>
</tr>
<tr>
<td>Transition and mobility</td>
<td>.204 *</td>
</tr>
<tr>
<td>Laws and norms favorable to drug use</td>
<td>-.298 *</td>
</tr>
<tr>
<td>Perceived availability of drugs and handguns</td>
<td>.330 *</td>
</tr>
<tr>
<td>Opportunities and rewards for prosocial involvement</td>
<td>-.013</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.01 level (2-tailed).

Correlations were different for different cluster items, with negative values for the possibility of police catching someone engaged in practicing antisocial behavior, and a positive value for acceptability of antisocial behavior from neighbors. This meant that negative values for questions regarding police effectively canceled out questions regarding neighbors. It is likely that this factor (laws and norms favorable for drug use) was related to antisocial behavior, but the given instrument appeared to measure separate things.

*Partial Correlations*

Correlations between antisocial behavior and ethnicity (outcome items), partialing out language (demographic item), and correlations between antisocial behavior and language (demographic item), partialing out ethnicity were run. This helped to identify if partialing out effects of one variable would significantly influence the outcomes with the other variable. Or in this case, what relationship antisocial behavior had with language and ethnicity independently from each other.
Table 3

*Correlation Between Antisocial Behavior and "Laws and Norms Favorable to Drug Use"

Cluster Items

<table>
<thead>
<tr>
<th>Cluster items</th>
<th>Antisocial behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative correlations</td>
<td></td>
</tr>
<tr>
<td>Would police catch a kid for smoking marijuana?</td>
<td>-0.158 *</td>
</tr>
<tr>
<td>Would police catch a kid drinking alcohol?</td>
<td>-0.045</td>
</tr>
<tr>
<td>Would police catch a kid carrying a handgun?</td>
<td>-0.210 *</td>
</tr>
<tr>
<td>Positive correlations</td>
<td></td>
</tr>
<tr>
<td>Neighbors–how wrong to use marijuana?</td>
<td>0.334 *</td>
</tr>
<tr>
<td>Neighbors–how wrong to drink alcohol?</td>
<td>0.262 *</td>
</tr>
<tr>
<td>Neighbors–how wrong to smoke cigarettes?</td>
<td>0.257 *</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.01 level (2-tailed).

In partial correlation between ethnicity and antisocial behavior (controlling for language), the results were insignificant with p values ranging between 0.112 and 0.972. However, p values of partial correlation between language and antisocial behavior (controlling for ethnicity), ranged between 0.004 and 0.272, with significant outcomes for correlation between antisocial behavior and items that measured antisocial behavior, such as: How often during the past 12 months have you been suspended from school? How often during the past 12 months have you been arrested? The results indicated a relationship with language, but not with ethnicity.
Correlations Between Cluster Items

Correlations between the specific items of clusters and antisocial behavior were run to identify possible underlying causes of general cluster correlations. This also helped to detect unusual cases. As a result, correlations between the specific items of clusters and antisocial behavior, indicated that low neighborhood attachment items did not correlate with adolescent antisocial behavior items. Community disorganization items exhibited a correlation with antisocial behavior items, though small (ranging between .12 -.29). Transition and mobility items showed a small correlation (ranging between .1 -.16). However, certain items (e.g., “moves since kindergarten” and, especially, “changing schools in past year”) did not correlate with middle adolescent antisocial behavior, while “school change since kindergarten” did correlate with antisocial behavior. Perceived availability of drugs and handguns items had a mostly positive correlation (again, as in all previous cases as expected by the researcher), but small (.096 -.38). Here, the highest value, .38, was for the correlation of “how easy to get marijuana versus being drunk or high at school.” One possible explanation is that availability of drugs could influence the chance of a child using it, while the harder it would be to get the illegal substance, the less possibility there was for an adolescent who thought of trying or using it, to actually do so. Opportunities and rewards for prosocial involvement items displayed, as expected, negative correlation, and, for most items, correlation did not correlate with antisocial behavior. So, opportunities and rewards for prosocial involvement tended to be associated with lower levels of antisocial behavior, while perceived availability of drugs and handguns appeared to be associated with higher levels of antisocial behavior. Interesting findings from correlation items of “transition and mobility” factor showed that changing homes did not relate to higher levels of antisocial behavior, whereas changing schools did. This may mean that social bonds and peer relationships at school, as well as changes in this sphere, influence the level of possibility of antisocial behavior.
Summary of Findings

Three risk factors were found to be present in the initial analysis of data, however, none of the suggested protective factors were present in this stage of analysis. Further work on correlations between clusters, cluster items, and partial correlations showed that three clusters (community disorganization, transition and mobility, and perceived availability of drugs) were positively correlated with antisocial behavior and were of possible concern in the studied area. One cluster “laws and norms favorable to drug use” correlated negatively with the outcome items (antisocial behavior cluster). Specific inter-item correlations of this last cluster and the antisocial behavior cluster were run to study the reasons for such a difference. The results (negative correlations for “police” items and positive correlations for “neighbors” items) suggested that police and neighbors have different effects on antisocial behavior.
DISCUSSION AND CONCLUSIONS

Discussion

A survey instrument aimed to measure factors influencing middle adolescent antisocial behavior was administered. Being guided by the ecological theoretical framework allowed the researcher to look at the problem of middle adolescent antisocial behavior from various points. It also allowed the researcher to see the problem in the complexity of different levels of environment surrounding the child. Besides studying risk factors of the antisocial behavior, it also addressed protective factors.

Several patterns emerged from the study. First, lack of correlation between protective factors and antisocial behavior indicated that generally protective factors did not have an influence on the level of antisocial behavior. This problem should be addressed in further research. Studies in this area will help to identify possible protective factors that correlate with antisocial behavior. This will allow professionals in this area to specify the purposes for the community-based intervention programs. Besides guarding against the present risk factors to antisocial behavior, it will also enhance development of protective factors, which will help to create a new environment to protect children from engaging in delinquency. In this respect, focusing on enhancement of protective factors in the community needs to be one of the most important goals for the current antisocial behavior prevention programs, because the protective factors that were measured did not greatly influence adolescents' behavior. Nevertheless, previous research gave evidence that existing comprehensive community-wide programs focused on reducing risk factors and enhancing protective factors had a positive effect on health behavior, including reduction in tobacco and alcohol use (Hawkins, 1999; Olweus, 1994; Perry, 1990).
Second, most community-related risk factors’ clusters showed correlation with middle adolescent antisocial behavior. However, negative correlation between “law and norms favorable for drug use” and antisocial behavior was unexpected. Correlations between cluster items (see Table 3) indicated that police may possibly be able to catch a child practicing antisocial behavior, but the adolescent who engaged in such behavior did not care much about this, which, consequently, did not influence his engagement in antisocial behavior positively. Fear of getting caught by the police did not seem to influence the level of adolescent delinquency, which may mean that adolescents thought that they would not be caught practicing antisocial behavior.

Absence of correlation between the “low neighborhood attachment” cluster and antisocial behavior (as was expected) indicated that this factor did not relate to the level of antisocial behavior. The previous findings in this area were conflicting. Some researchers suggested positive relationship and some negative (Gottfredson et al., 1991; Sampson & Groves, 1989; Simcha-Fagan & Schwartz, 1986). The findings in the present study suggest that there is only a weak relationship in this respect. But the measurement had certain limitations for this factor, which will be discussed later in the section.

Regarding the language and ethnicity factors, ethnicity was not found to be related to antisocial behavior, however, language was. It appears that non-native English speaking (being a non-native speaker and, possibly, having problems in socialization process) may be related to certain types of antisocial behavior, such as carrying handguns to school and attempting to steal. As noted earlier, this is not the case for ethnicity. Therefore, more attention to the socialization process of the non-native speakers and having needs of non-English speakers being more appropriately addressed might be helpful in controlling this factor.
Implications for Intervention

A clear understanding of community factors that relate to antisocial behavior has implications for prevention and treatment. As a number of researchers suggest (e.g., Jencks & Mayer, 1990) community violence and substance abuse exposure may serve as a marker for other problems, and, perhaps, should not be the sole focus of intervention. Accordingly, the interventions that are most likely to be effective may be those that go beyond the trauma-focused approach and address any behavioral problems as well as the broader contextual contributors (community factors) to antisocial behavior exposure, as identified by this study (transition and mobility issues, community disorganization, and perceived availability of drugs).

Two main aspects need to be considered in regard to the relationship between community and antisocial behavior. First, factors that have positive correlations with antisocial behavior need to be considered. Allocating additional financial resources and research to these issues (community disorganization, transition and mobility, and perceived availability of drugs) will allow future intervention programs to specifically shape intervention in the Salt Lake City area. Second, being non-native speaking seems to put behavioral practices of the adolescents at risk. Not only is increased attention to intervention of such adolescents required, but also more and better programs educating school teachers and the community about peculiarities of communicating with non-native speakers, as well as enhancing diversity education and multiculturalism in schools and communities.

Misunderstanding and isolation by peers caused by communication problems (in a non-native language) may be one of the determinants for the antisocial behavior of middle adolescents.
Limitations of the Study

As noted earlier, the relationship between protective factors and antisocial behavior was not established. However, the population from which data was gathered do experience problems related to antisocial behavior, but it was difficult to establish a relationship between antisocial behavior and the presence of protective factors. One possible explanation for this is restrictiveness of protective factors (in variability), so that the correlation was not present. Another problem was in items combined into one cluster (laws and norms favorable to drug use), which apparently represented two separate factors. It would be better to have the cluster of laws and norms divided into two separate clusters. The third problem was in using correlation as the analysis strategy, which did not allow the researcher to see only relationships between the variables and not to make predictions.

Recommendations for Future Research

Having more protective factors may help address the issue of a relationship between antisocial behavior and protective factors. Replicating the study in the area with different demographic (specifically ethnic, cultural, and SES) characteristics may also give more knowledge on variability of findings, given that the type of neighborhood the children live in may have substantial impact on the effectiveness of this intervention (Ennet et al., 1997).

Although not available for this study, it would be useful to collect independent measures of the school, family, and community environment based on school records, or school archives, such as school policies regarding substance use and violent behavior and amount of prevention education. This would allow one to take into consideration documented cases of violent behavior and illegal substance use to verify students’ responses to these questions. It would also help to track those cases that were not detected by data
collection to help understand the environment surrounding the students and influencing their behavior. Accounts from the school counselors might be of interest in this respect too—in terms of verification of survey findings and to give a more clear picture of the situation. Using a different type of analysis strategy, which would allow one to make predictions about the various findings, would be helpful in future study. Studying differences between recent and "older" immigrants would allow researchers to notice if being closer to the native culture and/or having problems in accepting local (different) values would affect the level of antisocial behavior among middle adolescents.

Conclusions

There is growing evidence that community factors influence middle adolescent antisocial behavior. An ecological model guided the current research, which meant that individuals were studied with consideration of the multiple ecological systems in which they operate. As a result, this study identified several factors that correlate with the middle adolescent antisocial behavior. These factors were community disorganization, transition and mobility, laws and norms favorable to drug use, and perceived availability of drugs and handguns. Unfortunately, protective factors did not seem to be related to decreasing antisocial behavior. Identifying the areas that correlate with youth delinquent practices helps to build better strategies for prevention and intervention programs, increase public awareness of the issue, and guard against possible threats to our youth. Parents, neighborhoods, and schools can prevent and guard against delinquent behavior by promoting norms of prosocial behavior, and ensuring development of behavioral, cognitive, emotional, and interpersonal skills among students that would help them to live and learn in the prosocial environment.
REFERENCES

Neighborhood, family, and individual processes as they influence child and adolescent outcomes. In J. Brooks-Gunn, G.J. Duncan, & J.L. Aber (Eds.),
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APPENDICES
Antisocial behavior. Can be broken down into two components: the presence of antisocial (e.g., angry, aggressive, or disobedient) behavior and the absence of prosocial (e.g., communicative, affirming, or cooperative) behavior.

Culture. A set of common and standard behaviors and beliefs shared by a group of people and taught by them to their children. There are always a number of subcultures in a complex society.

Delinquency area. A geographical unit (usually, approximately around one square mile) that has a higher average rate of delinquency. It is also presumed that delinquency areas are characterized by traditions and values that support or even encourage criminality (Bursik, 1988; Heitgerd & Bursik, 1987).

Family/community/societal risk factors to antisocial behavior. Family, community, and society characteristics can increase risk for antisocial behavior. These factors include: economic deprivation and unemployment that limit access to food, shelter, transportation, health care, and so forth; parental history of deviant behavior; favorable family/community attitudes toward deviant behavior; harsh and/or inconsistent discipline; poor parental and/or community supervision and monitoring; low parental education (especially maternal education); family conflict; disruption in care giving; poor attachment between child and family; low community attachment and community disorganization, as evidenced by low parent involvement in schools, and high rates of vandalism and violence; parental alcoholism; availability of drugs and guns; and exposure to violence, including violence in the home, community, and media (Gottfredson et al., 1991).
Individual risk factors to antisocial behavior. Several inborn traits and characteristics related to personality, temperament, and cognitive ability have been identified as risk factors for later delinquent behavior. These risk factors include: impulsivity, low harm avoidance, low frustration tolerance, central nervous system dysfunction, low cortical arousal, a predisposition to aggressive behavior, exposure to violence and abuse (as either a victim or a witness), rebelliousness, favorable attitudes toward deviant behavior, peer rejection, alcohol and drug abuse, and early onset of aggressive or problem behavior (Gottfredson et al., 1991).

School-related risk factors to antisocial behavior. An array of school factors can be linked to delinquent behavior such as: academic failure beginning in elementary school, poor academic aptitude test scores especially in reading beginning in Grades 3 and 4, lack of commitment to school, lack of belief in the validity of rules, early aggressive behavior (in Grades K-3), lack of attachment to teachers, school disorganization, ineffective monitoring and management of students, and poor adaptation to school, assignment to special education, and student reports of not liking school, lack of effort (Gottfredson et al., 1991).

Social disorganization. This term has different definitions in the literature, but in relationship to antisocial behavior, it typically refers to either: (a) a breakdown in conventional institutional controls, as well as informal social control forces, within a community or neighborhood, or (b) the inability of organizations, groups, or individuals in a community or neighborhood to solve common problems collectively (Shoemaker, 1996).

Subculture. Is a culture shared by a subgroup in a complex society and different from the subcultures of other subgroups in that society (Shoemaker, 1996).
Appendix B:
Survey Instrument Items Demographics

I. What do you consider yourself to be? [White, American Indian, Spanish/Hispanic/Latino, Black or African American, Asian, Pacific Islander, Other]

II. What is the language you use most often at home? [English, Spanish, Another Language]

Community

I. Low neighborhood attachment cluster: [strongly disagree, disagree, agree, strongly agree]
   1. I’d like to get out of my neighborhood.
   2. I like my neighborhood.
   3. If I had to move, I would miss the neighborhood I now live in.

II. Community disorganization cluster: [strongly disagree, disagree, agree, strongly agree]
   1. How much of the following statements describe your neighborhood:
      a. Crime and/or drug selling
      b. Fights
      c. Lots of empty or abandoned buildings
      d. Lots of graffiti
   2. I feel safe in my neighborhood.

III. Transition and mobility cluster:
   1. Have you changed homes in the past year? [Yes/No]
2. Have you changed schools (including changing them from elementary to middle) in the past year? [No/Yes]

3. How many times have you changed homes since kindergarten? [Never, 1-2 times, 3-4 times, 5-6 times, 7 or more]

4. How many times have you changed schools since kindergarten? [Never, 1-2 times, 3-4 times, 5-6 times, 7 or more]

IV. Laws and norms favorable to drug use cluster:

1. How wrong would most adults in your neighborhood think it was for kids your age: [Very wrong, wrong, a little bit wrong, not wrong at all]
   a. To use marijuana
   b. To drink alcohol
   c. To smoke cigarettes

2. If a kid smoked marijuana in your neighborhood would he or she be caught by the police? [strongly disagree, disagree, agree, strongly agree]

3. If a kid drank some beer, wine, or hard liquor in your neighborhood, would he or she be caught by the police? [strongly disagree, disagree, agree, strongly agree]

4. If a kid carried a handgun in your neighborhood would he or she be caught by the police? [strongly disagree, disagree, agree, strongly agree]

V. Perceived availability of drugs cluster: [Very hard, sort of hard, sort of easy, very easy]

1. If you wanted to get some beer, wine, or hard liquor, how easy would it be for you to get some?

2. If you wanted to get some cigarettes, how easy would it be for you to get some?
3. If you wanted to get some marijuana, how easy would it be for you to get some?

4. If you wanted to get a drug like cocaine, LSD, or amphetamines, how easy would it be for you to get some?

VI. Perceived availability of handguns cluster:

1. If you wanted a handgun, how easy would it be for you to get one? [Very hard, sort of hard, sort of easy, very easy]

VII. Opportunities for prosocial involvement cluster.

1. There are lots of adults in my neighborhood I could talk to about something important. [strongly disagree, disagree, agree, strongly agree]

2. Which of the following activities for people your age are available in your community: [Yes/No]
   a. Sports teams
   b. Scouting
   c. Boys and girls clubs
   d. 4-H clubs
   e. service clubs

VIII. Rewards for prosocial involvement cluster. [strongly disagree, disagree, agree, strongly agree]

1. My neighbors notice when I am doing a good job and let me know about it.

2. There are people in my neighborhood who encourage me to do my best.

3. There are people in my neighborhood who are proud of me when I do something well.

Outcomes

I. Antisocial behavior.
1. How many times in the past year have you:
   a. Been suspended from school?
   b. Carried a handgun?
   c. Sold illegal drugs?
   d. Been arrested?
   e. Stolen or tried to steal a motor vehicle such as a car or motorcycle?
   f. Attacked someone with the idea of seriously hurting them?
   g. Been drunk or high at school?
   h. Taken a handgun to school?