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Predictors of middle school girls' engagement in suspendable school offenses.

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ABSTRACT

Predictors of Middle School Girls' Engagement in Suspendable School Offenses

by

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M. S., Southern Adventist University, 2000
B. A., Southern Adventist University, 1997

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
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ABSTRACT

Despite research evidence that social context and personal characteristics are related to

girls' violent behavior, little is known about the relative contribution of such antecedents.

Therefore, the purpose of this study was to assess the relative strength of predictors of

school violence among a sample of middle school girls. Of special interest were the

intervening variables, because knowledge of their relative strength could enable schools

to design targeted interventions to reduce school violence. Social learning theory formed

the theoretical foundation for the study. A four-part survey consisting of

sociodemographic items, the Rosenberg Self-Esteem Scale, an amended version of the

Attitudes Toward Violence Scale, and the School Violence Inventory (used to assess

engagement in offenses that could result in school suspension) was administered to 229

girls enrolled in a middle school in a southern U.S. state. Data were analyzed using

hierarchical multiple regressions in which intervenable variables were entered first as a

block, followed by nonintervenable variables. The results indicated that the predictors of

school violence (from strongest to weakest) were observation of school violence, gang

membership, favorable attitude toward violence, school suspension, grade level, and drug

use. This finding suggests that female middle school students may be learning to behave

violently by observing others engaged in such behavior at school and through the

influence of gangs. Implications for positive social change are that the results could be

used by educators and other school officials develop specific interventions that more

effective target known predictors of school violence among middle school girls (for

example, increased student monitoring, after-school programming, and guided classroom

discussions on the nature of violence and its motivations).

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DEDICATION

I dedicate this endeavor to my mother, Milada H. Harlow, and my father, the late John B. Harlow. I thank them for their loving support, deep caring, and inspiration throughout my life. They can be proud of the growth, discovery, and joy that I have achieved in learning.

ACKNOWLEDGMENTS

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CHAPTER 1:

INTRODUCTION TO THE STUDY

Introduction

The highly publicized school shootings that have received so much attention in the popular media have also been addressed in a wide body of research (dating back over 50 years) on school violence and aggressive behavior among young people (Hipwell, Loeber, Stouthamer-Loeber, Keenan, & White, 2002). Demographically, adolescent males have been the group most often studied, but there is some evidence that researchers are increasingly turning their attention to the behavior of younger children and females (Hampel & Petermann, 2005; Odgers, Reppucci, & Moretti, 2005; Salmivalli & Kaukiainen, 2004)

Such research on violence and aggression in girls has identified both social context and personal characteristics as playing significant roles in this behavior. For example, Ellickson and McGuigan (2000) found that having low self-esteem and living in poverty were predictors of violent behavior in high school senior girls that could be traced back to their characteristics as seventh graders. Psychologically, the characteristic of low self-esteem involves a subjective negative appraisal of self to some degree, while living in poverty may include residing in single-parent households with limited resources, as well as weak bonds with parents resulting in less supervision and monitoring and increased emotional distress (e.g., McNulty & Bellair, 2003).

This research was undertaken to identify, through multiple regression, the relative importance of these and other possible key predictors of middle school girls' engagement in suspendable school offenses.

Background

Self-Esteem and Aggressive or Violent Behavior

The research that attempts to link perceptions of self-esteem to aggressive or violent behavior has typically focused on the self-esteem of victims of bullying and other forms of aggression (Juvonen, Nishina & Graham, & Schuster, 2006; O'Moore & Kirkham, 2001). Much less research has been done on the self-esteem of bullies and others who are aggressive or violent (Kokkinos & Panayiotou, 2004; Patterson, 2005; Seals & Young, 2003), which, given the social context of much aggressive behavior in young people, is interesting since some researchers have suggested that peer relations involve the self-esteem of both victims and aggressors (Moretti, Holland, & McKay, 2001). In an attempt to conceptualize self-esteem as a psychological construct, Baumeister, Bushman, and Campbell (2000) have tried to draw the line between high self-esteem, which is not a recognized psychological diagnosis, and narcissism, which is.

Pugh-Lilly, Neville, and Poulin (2001) asked girls characterized as aggressive for their perceptions of the hostility in their social environments. Not only did this phenomenological study provide a unique voice for the female participants, but Pugh-Lilly et al. argued convincingly for a model of aggressive behavior in girls that integrates the dynamics of self-interest and self-protection as salient constructs.

As Ellickson and McGuigan (2000) have indicated, social context and personal characteristics play significant roles in aggressive behaviors in young girls, while risk behaviors, such as violence, have been linked to socioeconomic status and family structure (Blum et al., 2000).

Family Structure and Violence

Family structure as a variable in research on violence has traditionally been linked to delinquent behavior via the *broken homes hypothesis* (Kierkus & Baer, 2002). As the composition of the modern family has evolved and changed, so has researcher recognition that family disruption can have far-reaching effects on child interaction with parents and other members of family and social networks. Not surprisingly, much of what is known about the influence of family-related factors on children's engagement in violence and aggressive behavior has come out of family studies and psychology. Family structure, however, is typically measured in large-scale demographic surveys rather than in focused quantitative or qualitative studies. Indeed, part of the challenge for investigators lies in operationalizing the construct of family structure. Kierkus and Baer broke the family down into *intact* (both natural and/or biological parents in residence), *single parent* (one natural and/or biological parent in residence), *reconstituted* (one natural and/or biological parent and a stepparent), or *neither natural/biological parent* (referring to type of home rather than family structure). Along the same lines, Ram and Hou (2005) used types of families (original parents, single mother, intact, and stepfamily) to define the family structural unit.

When considering the influence of household compositions or family structure on behavior, the extant literature has tended to focus on children's relationships with family or household members. For example, girls characterized as violent because their behavior resulted in suspension from school reported poor relationships with parents and other household or family members (Kierkus & Baer, 2002; Orpinas, Murray, & Kelder, 1999; Smith & Thomas, 2000). The quality of the mother-daughter relationship in particular has been seen as a critical factor in the behavior of girls from disrupted families (Ram & Hou, 2005).

As the above characterization of violent behavior based on school suspension implies, one important aspect of the research is the definition of violence itself. In the next section, how violence has been defined in the literature will be addressed.

Aggression Versus Violence

Even though researchers in myriad disciplines (including psychology, sociology, education, child health and development, and juvenile justice) have used a variety of approaches to the problem, a general consensus has evolved in the empirical literature that *aggression* and *violence* are separate constructs. The fundamental distinction appears to be the seriousness of the harm intended by and resulting from aggressive or violent behavior. Additionally, as Anderson and Bushman (2002) observed, whereas all violent behavior is aggressive, not all aggressive behavior is violent. The more serious and harmful the behavior, the more it is labeled as violent behavior. These authors also distinguished between *hostile* aggression—which is impulsive, involves anger, and is

perceived by the aggressor as provoked—and *instrumental* aggression, which is premeditated and fully intended to harm its object.

For researchers outside the juvenile justice discipline, defining aggressive behavior and violent behavior is somewhat of a challenge. Some researchers—such as Kierkus and Baer (2002), who included theft, property damage, drug sales, carrying a weapon, participation in gang violence, and breaking into locked premises in their definition—have used the term *delinquent behaviors*, which itself suggests a criminal justice origin. Along similar lines, Ram and Hou (2005) distinguished between direct aggression (e.g., property offenses, stealing, vandalizing, cheating) and indirect aggression (e.g., telling a friend's secrets, spreading rumors, and other types of *relational* aggression).

Such diverse approaches have also resulted in the linking of violence and aggression to a number of variables. For example, some socially oriented researchers have found that peer influence plays a powerful role in both children's engagement in aggression and violent behavior (Alexander & Langford, 1992; Talbott, Celinska, Simpson, & Coe, 2002) and in the wider social context of aggression (Tapper & Boulton, 2000). Investigators with a psychological or socioemotional perspective have examined the role of beliefs in aggressive and violent behavior, often focusing on young people's beliefs about the likely outcomes of their behavior (Hall, Herzberger, & Skowronski, 1998), particularly the reactions of others (e.g., peers and parents) and their likely support for particular types of behavior (Alexander & Langford, 1992). Other psychological

researchers have studied the experience of anger in young people and the means they use to express that anger. For example, Smith and Thomas (2000) found that girls characterized as violent experience anger intensely and express a global hostility toward others. Other recent research has suggested that certain attitudes toward and beliefs about aggressive and violent behavior constitute a rationalization for such behavior, particularly when aggressors consider it provoked or retaliatory (McConville & Cornell, 2003; Tapper & Boulton, 2000).

A significant segment of the research has focused on identifying the factors that protect young people from engaging in aggressive and violent behavior. Much of this literature has examined the community context in which young people develop, particularly their exposure to violence; their affiliations with peer groups, particularly gangs or socially defined cliques (Cadwallader & Cairns, 2002); and the strength of their family ties and support (Brookmeyer, Henrich, & Schwab-Stone, 2005). Among those who have examined the role of the family in preventing violent and aggressive behavior, Aspy et al. (2004) examined the effects of age and household composition, observing that middle school children living with single parents are significantly less likely to engage in physical fights. Of particular interest in this study was the finding that females who did become involved in fighting cited the influence of peer models.

A small but significant effort to study the relationship of age to aggressive and violent behavior includes the study by Tapper and Boulton (2000), which found an age-

related change in attitudes toward violence. Believing their results to be developmental, they suggested that children become more tolerant of violence as they age.

One significant void in the empirical research on aggressive and violent behavior is the paucity of information on its relationship to gender (Odgers et al., 2005). Whereas the inclusion of males in most research samples could merely be an indication of preference for convenience sampling, it may also imply that researchers have yet to identify distinct gender-related differences in engagement in aggressive or violent behavior (Salmivalli & Kaukiainen, 2004). Moreover, the research that has been conducted on girls and aggressive behavior has been the subject of criticism (Hadley, 2003, 2004). In Hadley's (2004) view, researchers have not thought deeply enough about the role of aggression in young people's peer cultures. She further suggested a longstanding bias that equates passivity with females but views males as active, an either-or perspective that prevents scholars from recognizing the potential complexity of the relationship between aggression and gender.

It is clear from this brief overview of aggression and violence that many factors have been researched as playing a role, such as age, ethnicity, and socioeconomic status. Noted exceptions have included gender and the female role in aggressive behaviors, which the next section will look at in what little depth there is in the literature.

Gender, Aggression, and Female Perceptions

Most extant research devoted to girls' aggressive behavior has centered on what appears to be a predominately female type of aggression, relational aggression, a research

thread generally attributed to the work by Crick and colleagues (Crick & Grotpeter, 1995; Grotpeter & Crick, 1996) on girls' preference for indirect social aggression over direct physical aggression. It has been suggested that this type of aggression is safer for girls (Prinstein, Boergers, & Vernberg, 2001) than physical aggression because it involves mostly verbal behavior like insults, betraying secrets, starting malicious rumors, and other indirect aggression aimed at social denigration. It has also been noted that some girls engage in relational aggression as a means of provoking others into physical aggression or escalating potentially violent situations (Talbott et al., 2002).

Increasing incidences of violence and aggression involving girls has engendered a number of different arguments. For example, whereas socialization of females to be passive and agreeable in their social relationships may contribute to the repression of anger and aggression (Smith & Thomas, 2000), Weiler (1999) proposed that girls today are influenced by entertainment role models and choose to fight back rather than accept others' behavior. Alternatively, Mullis, Cornille, Mullis, and Huber (2004) argued for mental health and personality as elements of the tendency to act violently or aggressively, suggesting also that family atmosphere may be a contributor and that a community context that includes substance abuse and the influence of gangs may support such behavior.

One proposed explanation for gender differences in aggressive or violent behavior is that male and female perceptions of what is normal (i.e., acceptable) behavior in the social milieu may differ (Hadley, 2004). Hadley not only cited girls' engagement in less

visible relational aggression (e.g., insulting, teasing, and starting malicious rumors) but also suggested that some girls may believe it acceptable to be overtly aggressive toward other girls but not boys.

Overall, given the unanswered questions outlined above, research interest in identifying the antecedents of aggressive and violent behavior is growing. This increasing interest has led to a focus on middle school children (Hall et al., 1998; McConville & Cornell, 2003), a population that this research intends to study with a focus on middle school girls to help address the paucity of information on the antecedents of violent behavior in this group.

A more comprehensive evaluation of the literature related to aggression and violence in this population is addressed in chapter 2.

Statement of the Problem

School aggression and violence are two of the most dramatic problems facing school administrators and public officials in the United States (DeVoe et al., 2004). The prevalence of female violence in both society and schools has prompted attempts at early intervention, recognized as crucial to preventing the development of violent behavior. While previous research has identified a number of potential predictors (such as self-esteem, family structure, parental monitoring, and the like), none have looked at the relative importance of such predictors while controlling for the others. Therefore, this study aimed to remedy the lack of a clear understanding of the relative strength of the

antecedents of aggressive or violent behavior among middle school girls that makes targeting early intervention difficult (Mullis et al., 2004).

Purpose of the Study

The purpose of this quantitative study was to identify, through multiple regressions, the relative importance of key predictors of middle school girls' engagement in suspendable school offenses. For this correlative study, potential key predictors included attitude toward violence, self-esteem, parental monitoring, observation of violence, gang membership, use of illicit drugs, and prior school suspension. The sociodemographic variables were age, grade level, eligibility for free or reduced lunch, family structure, and academic grades.

Design of the Study

Sampling Procedure

Participants were recruited from the female students in a single middle school in the Hamilton County Public Middle School District, which, in December 2006, enrolled a total of 649 students, aged 11 to 15, in grades six through eight. Of these, 309 students were female. The racial and ethnic profile of the potential participants reflected that of the school: 74 were African American, 214 were Caucasian, and 21 were other ethnicities. Specifically, a convenience sample of female participants was recruited from English classes, which, because English was a required core course, offered the best opportunity to reach all female students in the school.

First, packets explaining the purpose of the research, the measures taken to insure participant confidentiality, and the planned use of the research data were distributed to students and parents. In particular, the packets contained information on the research purpose and use of the research data, guarantees of participant anonymity and confidentiality, and permission forms to be signed by student and parent and returned to the investigator (see Appendixes A and B).

The research data were collected via a four-part Student Survey instrument (see Appendix C). Part One comprised items designed to collect sociodemographic data as well as to learn about the student's observation of violence at home, in the community, and at school; the degree to which her activities were monitored by parents or guardians; drug use; and gang membership. Part Two consisted of the School Violence Inventory (Anderson, 2004), a 10-item measure of engagement in suspendable offenses at school, and an item that asked about prior suspension (used with permission from the author; see Appendix D). Part Three consisted of the Brief Rosenberg Self-Esteem Scale (Rosenberg, 1965), which contains 10 statements to assess a student's self-reported measure of self-esteem. Part Four consisted of the 19-item Attitudes Towards Violence Scale (Funk, Elliott, Urman, Flores, & Mock, 1999), designed to measure attitudes toward violence and amended for use with middle school girls. Chapter 3 provides a more detailed discussion of the study variables.

The students returned the completed survey to a sealed box. The resulting data were shared only with the researcher's institutional mentors and advisors.

Research Question and Hypotheses

To address the research problem, the study aimed to answer the following research question: What is the relative relationship of key predictors of engagement in suspendable school offenses among middle school girls? Since the research question presumed the set of predictor variables would significantly predict engagement in suspendable school offenses, two sets of research and null hypotheses were formulated, the first relating to the presumption and the second relating directly to the research question:

Research hypothesis 1. In a multiple regression, the combined effect of key predictors will significantly predict engagement in suspendable school offenses ($R > 0$, $p < .05$).

Null hypothesis 1. In a multiple regression, the combined effect of key predictors will not significantly predict engagement in suspendable school offenses ($R = 0$).

Research hypothesis 2. In a multiple regression, the unique effects (i.e., part correlations) of each predictor variable will not be equal.

Null hypothesis 2. In a multiple regression, the unique effects (i.e., part correlations) of each predictor variable will be equal.

<div align="center">Theoretical Framework</div>

Reviews of recent research on aggression, which will be further discussed in chapter 2, have suggested that *social learning theory* is gradually moving toward an integrated model based on various versions of the theory (Anderson & Bushman, 2002).

One basic assumption of most social learning theories is that aggressive behavior is learned, either by repeated engagement in the behavior followed by positive reinforcement (Tedeschi & Felson, 1994) or by observing the behavior of others (Huesmann, 1988). A second basic assumption is that the motivation of those who engage in aggressive behavior is directly related to the results they expect from their actions, for example through the actions or reactions of others, which then reinforce the aggressive behavior.

The constructs of social learning theory, first postulated and connected to behavior 50 years ago (Rotter, 1954), were operationalized by Bandura (1973, 1977) as *outcome expectancies* and *outcome values*. Bandura combined these two constructs to explain aggression in children as motivated by the expected outcomes and the values that aggressors attach to these outcomes. In his view, children who expect their aggression to result in either a desired tangible result (such as control of the TV remote or someone else's lunch money) or a desired intangible result (such as respect from their peers or a positive boost to their self-esteem) will engage in aggressive behavior more readily than children who do not have these expectations. As a corollary, Bandura contended that children who value what they consider to be the positive results of aggressive behavior and are unconcerned about the potential negative results are more likely to behave aggressively than children for whom the negative results are of greater concern. Thus, social learning theory incorporates the construct of outcome expectations and also proposes that aggressive behavior focuses on a specific individual or group, the *target*,

and that the intent of the behavior is to change the target's behavior, obtain something from the target, exact some kind of justice from the target, or establish a particular social identity in the eyes of the target (Tedeschi & Felson, 1994).

Another version of social learning theory, *script theory*, assumes that aggressive behavior is learned through observation, not only of other people in an individual's family or social network, but of portrayals in the popular media. For example, Huesmann (1988) suggested that children learn scripts that apply to specific social situations and then retrieve them from memory and rehearse them as they develop their behavioral patterns. Indeed, a substantial body of empirical research addresses children's imitation of parental aggressive behavioral models, an issue that will be discussed in more detail in chapter 2.

Social learning theory has been used as a theoretical framework for studies over a wide range of topics by educators, psychologists, sociologists, and criminologists. It has also proven applicable to a wide range of research designs and methodologies, including the analysis of large community databases (Kierkus & Baer, 2002), fighting with siblings and peers (Alexander & Langford, 1992), family violence and children (Lee, 2001; Study 1, 2002; Wolf & Foshee, 2003), and intervention efforts (Fast, Fanelli, & Salen, 2003; McConville & Cornell, 2003).

The work of Akers (1985) is generally credited with introducing the concept of social group influence as a behavioral model. Akers suggested that the role of modeling in aggressive behavior could be operationalized according to four dimensions: the degree

to which individuals imitate models they admire, how individuals define socially deviant behavior, the degree to which individuals associate with the model group (*differential association*), and the degree to which individual behavior is reinforced by the model group (*differential reinforcement*). Related to Akers' model is *social control theory*, which links delinquent behavior with the strength of individuals' bonds with society, that is, their degree of attachment to family, community, and peers; how committed they are to conforming to behavioral norms and activities; and their attitude toward the law (Hirschi, 1969).

General models of aggression, such as that proposed by Anderson and Bushman (2002), combine all possible dimensions that influence aggressive behavior. The Anderson-Bushman model includes both personal characteristics—how inhibited the aggressive individual is—and situational characteristics—whether the situation encourages or inhibits aggressive behavior; as well as the cognitive and psychological states created by these characteristics, particularly anger. Finally, the model includes the outcomes of the combination of person, situation, and cognitive-emotional states that feed into an individual's appraisal of a situation and the decision to behave in a particular way.

The Anderson-Bushman (2002) model is used in this research because it combines the popular theories of aggression with all the factors that influence aggressive behavior, including the role of anger, and the outcomes (i.e., appraisal and decision making) that may encourage or inhibit aggression.

Definitions of Terms

Family structure. Family structure is defined here as parent or guardian household composition; that is, both biological parents, one biological parent, grandparent, other relative(s), or nonrelative.

Violent behavior. This variable is measured by the School Violence Inventory (Anderson, 2004), which uses a 5-point Likert-type scale to ask participants about their acts of physical and relational aggression, weapon possession, use of threats of violence, and other suspendable school offenses (see Part Two of the Student Survey in Appendix C).

Aggressiveness. This variable is measured by the amended Attitudes Towards Violence Scale (Funk et al., 1999), which uses a 4-point Likert-type scale to ask for participant ratings on their attitudes toward violence, use of violence, and readiness for violence in relation to 19 items, (see Part Four of the Student Survey in Appendix C).

Self-esteem. This variable is assessed by the Rosenberg Self-Esteem Scale (Rosenberg, 1965), which uses a 4-point Likert-type scale to assess participant ratings of their degree of agreement with 10 items (see Part Three of the Student Survey in Appendix C).

Assumptions and Limitations of the Study

The primary assumption of the study was that after assurances of anonymity and confidentiality, the participants would be candid in their responses to the survey. Nonetheless, it was not possible to account for underlying psychological conditions in the

girls who voluntarily participated in the study. For example, some may have been diagnosed with a conduct disorder or other psychological condition associated with violent or aggressive behavior. In addition, the study was not designed to measure the effects of peer influence on aggressive or violent behavior, nor could it determine the accuracy of participant reports of whether the behavior was engaged in alone or with peers.

The primary limitation of the study was its sole reliance on participant self-reports without any attempt to verify the reported engagement in aggressive or violent behavior from any independent sources such as school disciplinary records or peer or teacher observations. Related to this limitation were the assumptions that participant recall was accurate and that reports had not been influenced by a social desirability bias, of which there is a particular risk with preadolescents and younger adolescents.

In addition, it is important to note that the data were gathered from a single middle school in a single geographic location, and results may be different for other schools with different demographics. Care should therefore be taken in generalizing results to the larger population of middle school girls.

Significance of the Study

To fill an acknowledged research void, this research was designed to study the relationship between middle school girls' violent behavior and their subjective views of such behavior, their self-esteem, their family structure, and other key predictors. It is hoped that the findings will affect social change with insight into what is known about

key predictors by sorting out relative relationships. Besides such contribution to the knowledge base, the findings may also help stimulate social change in the direction of designing and implementing targeted interventions to address the most important predictors. Nonetheless, as already discussed, this research did not aim to establish or imply any causal relations between behavior and predictors but rather to provide data that can be used to inform future quantitative and qualitative research on predictors of violent and aggressive behavior among middle school girls.

In sum, the extant empirical research has outlined several risk factors associated with the middle school environment that are related to female adolescent violence and aggression. However, none of this research has attempted to sort out the relative contribution of predictors. Therefore, this study aims to reduce this knowledge gap by determining the relative strength of the predictors of violent behavior in school among a sample of middle school girls. The conceptual framework for the study is social learning theory, especially as it applies to the issue of adolescent girls learning aggressive and violent behaviors.

The next chapter presents a review of the empirical and theoretical literature related to violent behavior. Chapter 3 then provides a detailed discussion of the study methodology, particularly the setting and sampling techniques, research instruments, the data collection and analysis plan, and the safeguards for participant anonymity and confidentiality. Chapter 4 reports the results of the research, including descriptive statistics and results of the hierarchical regression. Finally, chapter 5 summarizes the

research and provides interpretations of the results. It also outlines the implications of

the findings for social change and presents several recommendations for action and future

research.

CHAPTER 2:

REVIEW OF THE LITERATURE

Introduction

This review of the relevant literature is divided into seven main sections.

Following a brief introduction, the first section provides an overview of the types of

research study conducted to explore aggressive and violent behaviors among young

people, the issues raised by these studies, and some of the main correlates found for

violent and aggressive behavior. The second section then explains theoretical bases for

understanding aggressive and violent behavior among adolescents. This section pays

special attention to social learning theory, the framework used for this study.

The third section focuses on aggression among adolescents, its nature and its

primary correlates. The fourth section reviews literature related to how high or low self-

esteem may be related to violence and aggression among young people, while the fifth

section presents a discussion on the influence of the family on violent and aggressive

adolescent behavior. The sixth section reviews the literature on methodological issues

related to determining correlates of violent behavior among girls and boys. The last

section summarizes the chapter's main points.

This comprehensive review of the literature was conducted using four online

databases: PsychINFO, Academic Search Premier, SocINDEX, and ERIC. The key

search terms included *female, adolescents, middle school (high school), aggression* and

violence, peer pressure, self-presentation, self-esteem, criminal behavior, observational

and social learning, scripts, media violence, and *intervention.* Additionally, statistical

information was obtained by searching government databases, such as those of the

Bureau of Justice Statistics and the U.S. Department of Education and Justice.

Overview

The significant attention paid in the scholarly literature and popular media to

aggressive and violent behavior among young people has resulted partly from several

highly publicized school shootings. Among researchers, despite a traditional focus on

violence among adolescent boys, there has been increasing interest in the behavior of

younger students and girls (Hipwell et al., 2002). For example, Ellickson and McGuigan

(2000) examined the antecedents of violent behavior in older adolescents, identifying the

characteristics of seventh graders that predicted their involvement in aggressive or violent

behavior 5 years later. In addition to finding the seeds of violence in younger students,

the authors detected some important gender-related factors. Among other characteristics,

they found that seventh-grade girls with low self-esteem were likely to engage in violent

behavior by the time they reached their senior year in high school. Nonetheless, the

authors also explained that level and quality of self-esteem, although correlates, are not

synonymous; that is, self-esteem can be high but fragile (e.g., narcissism) or low but

secure (e.g., humility). In addition, the quality of an individual's self-esteem can be

categorized as follows: consistency over time (stability), independence upon particular

conditions being met (no contingency), and degree to which self-esteem is ingrained at a

basic psychological level (implicitness or automaticity).

Baumeister, Bushman and Campbell (2000) held that simply inflating self-esteem can actually decrease grades. Specifically, the authors repudiated the assumption that bullies act violently toward others because they suffer from low self-esteem, arguing instead that bullies act violently toward others because they suffer from unearned *high* self-esteem. Moreover, their self-esteem may be linked to status in a hierarchy in which putting someone down can have tangible and even life-threatening consequences.

Despite the general consensus on the differences between aggression and violence, some researchers have included measures of both types of behavior in a single study. For example, Anderson and Bushman (2002) defined aggression as "any behavior directed toward another individual that is carried out with the *proximate* (immediate) intent to cause harm" (p. 28); that is, any behavior that the aggressor believes will harm the victim and that the victim will try to avoid. They defined violence as "aggression that has extreme harm as its goal (e.g., death)" (p. 29), noting that while all violent behavior is aggressive, not all aggressive behavior is violent. The authors further distinguished between two types of aggression: hostil*e* (impulsive, reactive to provocation, occurring as a result of anger) and instrumental (premeditated, with an aim in addition to do harm).

Because much of the focus in the research literature is on the factors that predict aggressive and violent behavior, few researchers have examined within-group variations to assess *why* certain factors predict such behavior in some individuals but not in others. Aspy et al. (2004) attempted to fill this research gap by studying the protective factors, or *assets*, available to young people and the relationship between these assets and risk

behaviors, including physical fighting and weapon possession. They found that despite potential links with resiliency research, this focus on protection against violent behavior is not typical of the research focusing on family and community factors in youth resilience. Rather, a substantial segment of the latter has focused on children's exposure to violence in their neighborhoods, both as victims and as witnesses. Not surprisingly, because young people's social development is dominated by their peer group affiliations, which in turn influence their involvement in social aggression and group violence, the presence and influence of gangs in inner-city neighborhoods has also been of primary interest to some researchers. As Cadwallader and Cairns (2002) pointed out, there may be a finer line than some believe between a gang and a tightly knit clique. Moreover, even though students who witness violence in their communities may be strongly influenced toward aggressive and violent behavior, some studies have found that strong parental support and a healthy family and social network environment can serve as protective factors, particularly for girls (Brookmeyer, Henrich, & Schwab-Stone, 2005).

The influence of inner-city residency was investigated by Aspy and colleagues (2004), who surveyed nearly 1,100 households chosen randomly for the presence of parent-teen pairs living in inner-city neighborhoods. Of the sampled teens, 31% were in middle school and 69% in high school. Overall, 63% of the participants, about half of whom were female, reported having engaged in no physical fighting in the previous 12 months, while 86% reported no weapon carrying in the previous 30 days. Participants who reported good family communication and making responsible choices were 1.5 to 2

times less likely to have been in a fight in the past 12 months. Of particular interest to

the current research is that among middle school students, those in one-parent households

were more than twice as likely to report no involvement in physical fighting in the

previous 12 months, although, as detailed in the subsequent discussion, no consensus as

yet exists among researchers on the effects on young people's behavior of living in

single-parent households.

Prominent among the wide range of assets (protective factors) identified by Aspy

et al. (2004) was the presence in young people's social networks of nonparental adult role

models, although the researchers also identified such protective factors as good family

communication, constructive use of time, community involvement, future aspirations,

making responsible choices (saying no to activities considered wrong), and following

good health practices. Also interesting, among those who reported involvement in

fighting, peer models were more important to females than to males, a finding that

suggests a strong social dimension to aggressive and violent behavior in girls.

The preponderance of the empirical research on aggressive and violent behavior

has been conducted using mixed-gender samples, possibly an indication that in the

current stage of research, investigators are still attempting to identify gender-related

differences. However, because the sample in the present study consisted of females only,

this review examines those empirical investigations that have focused on girls' aggressive

behavior and that offer the most promise for future research.

The traditional sociological view of girls' behavior is typified by Smith and Thomas's (2000) observation that females are socialized to be passive, helpful, and agreeable in their relationships and to repress their anger and aggressive feelings toward others. However, noting the increasing incidence of violence perpetrated by girls, Weiler (1999) also suggested that girls are choosing to fight back, imitating aggressive models from popular media. Moreover, these females may have undiagnosed (i.e., based on tests that cannot be done on those under 18) antisocial personality disorders, long thought to be an almost exclusively male condition. In an overview of the characteristics of female juvenile offenders, Mullis et al. (2004) contended that context is all-important, which indicates that, while researchers need to consider individual mental health and personality characteristics, they must also include family factors and other factors like gang influence and substance abuse.

One highly comprehensive two-part review of the literature by Hadley (2003, 2004) offered a critical overview of what the popular and scholarly media have said about girls and aggressive behavior. In the review of the popular media, Hadley (2004) identified the popular images of aggressive females that may serve as role models for young girls, including women professionals, soldiers, sports champions, "chick flicks," and images of air-brushed bodies selling products. These double messages about the need to achieve while being nice and self-effacing are everywhere. Additionally, even though the focus of Hadley's review was the portrayal of and research on relational or indirect aggression in females, she raised larger issues of concern to the research community:

1. A lack of reflection about aggression itself, its nature and function, and the forms it takes in different social and personal contexts, particularly in the social process of adolescent subcultures and the needs of individual adolescents;

2. An unanalyzed and longstanding bias equating passivity with females and activity with males that permeates our language and our methodologies of studying or conceptualizing this topic; and

An ancient and largely implicit assumption about gender difference as binary that oversimplifies and locks us into an either-or position, making it nearly impossible to think about the complexity of either the expression of aggression or gender as we know and live it. (p. 369)

In her review of the scholarly research, Hadley (2004) noted differences between boys' and girls' normative beliefs about aggressive behavior. Generally, girls believe that their aggression is less visible because it is relational; that is, it involves insults, teasing, rumors, and similar behavior specifically directed at other girls. Hadley suggested that this belief may account for some inconsistencies in girls' reporting of their aggressive behaviors in research studies, particularly relational aggression, which is seldom expressed in contexts where the inherent social skills and agency entailed can be recognized. She further contended that even middle school-aged children make rather complex distinctions between types of aggression in relation to social norms among their peers, a circumstance that has been little studied.

Finally, the traditional link between family structure and delinquent behavior, often referred to as the broken homes hypothesis, has a long and substantial history (Kierkus & Baer, 2002). More recently, researchers have viewed the relationship as

indirect, because family disruption is likely to be at the heart of a number of variables

that directly affect interactions among children, parents, and other members of family and

social networks. For example, in the survey by Smith and Thomas (2000), violent girls

(those who had been suspended or expelled from school for fighting or carrying a

weapon, or charged with a violent crime) were more likely to report a "not so good"

relationship with their families (28% vs. 6% of nonviolent girls). Because this influence

of family factors on children's behavior is a salient variable in the present research, the

next section outlines a number of studies that have broadened the discussion on this topic.

Social Learning Frameworks

In an overview of the human aggression construct, Anderson and Bushman (2002)

provided a comprehensive summary of the theoretical bases for aggression research, a

field that, in their view, is moving toward a model that integrates the following prevailing

theories.

Social interaction theory. Developed by Tedeschi and Felson (1994), this theory

proposes that aggressive actions are intended to change the behavior of the target of the

action, obtain something the aggressor wants, right a wrong, or support a social identity.

This implication that aggressors choose their behavior according to expected outcomes

after weighing the "rewards, costs, and probabilities of obtaining [them]" (Anderson &

Bushman, 2002, p. 32) obviously overlaps with social learning theory.

Script theory. This theory, based on the work of Huesmann (1986, 1988),

proposes that aggressive behavior is learned by observing violence from such sources as

television, films, and video games. It views such behavior as guided by *scripts*, "sets of particularly well-rehearsed highly associated concepts in memory, often involving causal links, goals, and action plans" (1988, p. 31). Moreover, once an individual learns a script that fits a particular situation, that script can be retrieved from memory and used as a behavioral guide.

Social learning theories. Theories within this paradigm are based on the assumption that individuals learn to behave aggressively by direct engagement in aggressive behavior or by observing it in others. Thus, aggressors are motivated by beliefs about or expectations of what the outcomes of their behavior will be. Most research that applies social learning theories—whether to educational achievement; health behavior; or risk behaviors like smoking, drinking alcohol, and abusing illicit drugs—emphasizes the modeling component of social learning, particularly children's observations of their parents' conflicts. Indeed, some researchers have suggested that children experience more negative emotions when parental aggression is physical than when it is verbal and that children learn to imitate their parents' aggressive behavior and scripts: "The salience of aggressive models increases from exposure to verbally aggressive models to physically aggressive models … [and] predicts that the child is more likely to experience anger and hostility when exposed to physical conflict than to verbal conflict" (Bandura, 1973, pp. 28–29). In addition, studies based on social learning theories have hypothesized that same-sex parent models, when aggressive, are more influential; that is, girls imitate aggressive mothers and boys imitate aggressive fathers.

As outlined in the previous chapter, the uses of social learning theories have been many but include linking attitudes and behavior (McConville & Cornell, 2003) and formulating interventions for aggressive students (Fast et al., 2003). In addition, social learning theory itself has been examined, for example, in Hall et al.'s (1998) work on outcome expectancies and aggressive behavior.

In one of the earliest formulations of social learning theory, Rotter (1954) described behavior as "a function of the expected probability of occurrence of a particular reinforcement (expectancy) and the degree of preference attached to that reinforcement (reinforcement value)" (p. 440). These concepts were later refined by Bandura (1973, 1986) as *outcome expectancies* and *outcome values* and further interpreted by Hall et al. (1998) in the context of aggression:

> Children engage in aggressive behavior to the extent that they both expect
> certain outcomes to result from that aggression and attach value to those
> outcomes. A child who expects aggression to result in outcomes such as
> tangible rewards, peer respect, and positive self-evaluation will be more
> aggressive than a child who does not hold similar outcome expectations.
> Also, children who care more about the positive outcomes of aggression,
> and less about the negative outcomes, should likewise show elevated
> levels of aggressive behavior. (p. 440)

Social learning theory was applied by Akers (1985), whose work was based on the premise that "the principal behavioral effects come from interaction in or under the influence of those groups which control individuals' major sources of reinforcement and punishment and expose them to behavioral models and normative definitions" (Akers, Krohn, Lanza Kaduce, & Radosevich, 1979, p. 638). In Akers's view, four variables explain aggressive behavior: "(1) the extent of an individual's imitation of admired

models, (2) the extent of an individual's definitions regarding deviant behaviors, (3)

the extent of an individual's differential association, and (4) the extent of an individual's

differential reinforcement" (Akers, 1985, ¶ 4). In addition, he defined his primary terms

as follows:

> *Differential association* means the processes by which an individual aligns
> himself or herself with the group that controls the individual's major
> source of reinforcement, such as the family or peer groups.
>   *Differential reinforcement* means the process by which deviant behavior
> becomes dominant over conforming behavior. Given two modes of behavior that
> both reinforce, the one that is reinforced in the greater amount, more frequently,
> and with the higher probability (that is, greater likelihood of occurring) will
> become dominant. (¶ 7-8)

Social control theory. This behavior reinforcement model, which resembles social

learning theory, hypothesizes that "delinquent acts occur when an individual's bond to

society is weak or broken" (Hirschi, 1969, p. 16). The bond referred to is described as an

"attachment to conventional others, commitment to conformity, involvement in

conventional activities, and a belief in the legitimacy of the law" (p. 430). On this basis,

researchers have tended to focus on parental attachment, usually operationalized as the

extent of parental supervision or monitoring, the intimacy of parent-child communication,

and *affectional identification* (whether children care what their parents think about their

behavior).

General aggression model. Anderson and Bushman (2002) proposed that

researchers should consider basing empirical work on a generalized model that combines

the popular theories of aggression with all the factors that influence aggressive

behavior—personal and situational characteristics, the internal states these characteristics

create (e.g., cognition, affect, arousal), and the outcomes such as appraisal and decision making. Their model also takes into account the opportunities and situations that encourage or inhibit aggression, the individual's inhibitions and motivations, and the role of anger.

Aggression

A substantial body of research literature exists on aggression and violence, much of it designed with the ultimate goal of discovering interventions aimed at preventing antisocial behaviors in young people. The research of most interest to the current project is concerned with establishing links between aggressive behavior in middle school girls, self-esteem, and family structure.

In an early study based on social learning theory, Alexander and Langford (1992) examined physical fighting in junior and senior high school students by rating participant agreement with 15 statements reflecting social learning components: imitation (of best friends, oldest friends, close peers), beliefs, and outcome expectancies (praise or disapproval from peers for not fighting, parental disapproval or punishment for fighting, legal trouble, school suspension). The study was designed to detect *differential association*—operationalized as adult and peer approval of fighting and observation of best, oldest, and closest friends—and *differential reinforcement*—operationalized as friends' praise or disappointment for not fighting, parents' disturbance or punishment for fighting, legal trouble, and school suspension.

The authors concluded that differential association was the most significant predictor of delinquent behavior. In addition, even though the frequency of fighting in their sample was low, they argued that the findings supported social learning theory because "students who do not have strong attitudes about fighting and who are weakly reinforced for fighting will not engage in very much fighting" (Alexander & Langford, 1992, Conclusion, ¶4). Whereas this conclusion is intuitive, the results nonetheless substantiate the conventional wisdom.

In a study of students aged 10 to 15 years from low socioeconomic backgrounds, Hall et al. (1998) assessed retaliatory aggression by measuring outcome expectancies and outcome values. Given hypothetical scenarios, participants were asked to rate expectancies of punishment (by parents or teachers), bad feelings (toward themselves and others), and social benefits (preventing future aggression and earning peer respect) using a 4-point scale, ranging from 1 (*I care very, very much),* to 5 (*I don't care at all).* Even though the researchers were able to correlate at least one variable as a predictor for each expectancy identified, the results were not as clear cut as anticipated. Rather, the interactions between expectancies and assigned values were in fact differentiated: "children who were more likely to expect punishment to result from their aggression scored lower on self-reported aggression ... [while those] who cared more about punishment were … less aggressive" (p. 451).

The results for the bad feelings outcome, however, were quite different. There was little expectation among the more aggressive children that aggressive behavior would

make them feel bad, and they placed little value on feeling bad because they had behaved aggressively. With regard to the expectation that their aggressive behavior would make others feel bad, aggressive children cared little, even when they were aware of the likely outcome of their behavior (Hall et al., 1998).

The role of attitudes and beliefs in aggressive behavior was also the focus of a study of a group of middle school students by McConville and Cornell (2003), who found that those with more positive attitudes about aggressive behavior—that is, clearer rationalizations for such behavior—were more likely to report having engaged in physically aggressive behaviors. Rather than relying solely on the children's self-reports, this study also used peer and teacher assessments of children's aggressive behavior, as well as school referrals for disciplinary action. Obviously, this use of independent sources to substantiate or contradict self-perceptions of aggressive behaviors increased the study's validity.

This choice of middle school students as research subjects is becoming increasingly popular because of the many developmental issues that characterize their behavior. For example, Tapper and Boulton (2000) demonstrated developmental changes in attitudes toward aggression in a sample of 7- to 11-year-olds of both genders. They used the construct *social representations* of aggression to illustrate gender differences, denoting the representations typical of females as *expressive* (implying a negative attitude and loss of self-control) and those of males as *instrumental* (implying a positive attitude and control over others). Specifically, this attempt to measure "the perceived social value

of aggression, its proximate causes, relevant emotions, relevant cognitions, form, aim,

situational facilitators, and its management in terms of the aggressor's reputation" (p.

445) found that "girls held more expressive [negative] representations of aggression"

compared with boys who "held more instrumental [positive] representations" (p. 446)

The current trend in aggression research focused solely on girls' behavior is to

study participants' use of indirect social relational forms of aggression rather than direct

physical forms. As discussed in the previous chapter, the distinctive role of relational

aggression in the social behavior of preadolescent girls was first identified in work by

Crick and Grotpeter (Crick & Grotpeter, 1995; Grotpeter & Crick, 1996). Their study of

whether the overt and relational aggression in peer groups also played out in dyadic

friendships found less aggression within the friendships of overtly aggressive children

(Grotpeter & Crick). Specifically, participants characterized as overtly aggressive

reported that they had engaged in aggressive behavior in concert with friends with the

aim of causing harm to those who were not part of the friendship. Achieving this goal

was "relatively important to them" (p. 231). Moreover, their friends may have been

encouraged to act aggressively even if they were not characteristically aggressive. In

addition, overtly aggressive children reported lower levels of intimacy in friendship. One

interpretation for this phenomenon offered by Prinstein et al. (2001), who also showed

empirically that relational aggression is a distinct construct, is that relational aggression

may be a seemingly safer alternative to physical aggression for girls as they develop. This

observation may partly explain why the incidence of physical aggression tends to diminish as children get older.

Among those who have emphasized the roles that girls play in provoking or escalating direct aggression with acts of relational aggression, Talbott et al. (2002) specifically examined the ways in which girls use relational aggressive behavior to support subsequent physically aggressive behavior. In semistructured interviews with a sample of low-income, low-achieving sixth-, seventh-, and eighth-grade girls (60% African American and 40% Latino), the authors concentrated on eliciting narratives of public fights and confrontations that they believed to be important to the social networks of both participants and observers. The researchers felt that such public displays were more socially powerful when more people knew about them.

Rather than using a general term like *conflict* or *fight*, Talbott et al. (2002) distinguished between physical aggression, physical confrontation, verbal confrontation, name calling, social aggression (of the he-said-she-said or negative gossip variety), and verbal argument. They found that gossip and rumors were not only part of a buildup to public incidents of aggression but also an important part of the subsequent social context. As a result, the authors pointed out, there is, particularly in urban schools, a zero tolerance mentality that typically suspends students for fighting, despite a consensus among educators and parents that such punishment is not a particularly effective disciplinary method.

To describe the experience of anger in girls characterized as violent, Smith and Thomas (2000) studied data from a national sample of more than 200 girls aged 9 to 19 ($M = 15.6$ years) who had been suspended or expelled from school for fighting or carrying a weapon, or charged with a violent criminal offense. Specifically, they assessed four kinds of anger expression measured by the Framingham Anger Scales: *anger–discuss* (managing anger by talking about it with a friend or family member); *anger–in* (suppressing anger); *anger–out* (venting anger by attacking another verbally or physically); and *anger–symptoms* (experiencing an intense somatic response to anger, such as "severe headache, tension, or shakiness") (p. 557).

In addition, even though the study was primarily quantitative, it made some provision for written responses and an open-ended written narrative. Thus, not only did the researchers analyze data on interpersonal relationships, number of hours spent watching television, and weapon carried (by participants or acquaintances), they asked participants for their attitudes toward the fairness of discipline at home and at school and toward such policies as curfews and zero tolerance. They found that violent girls tend to experience global hostility and more intense anger, including physical symptoms, with the majority (91%) reporting that they had felt "angry enough to hit or hurt someone" (p. 568).

For a study of dating violence in eighth- and ninth-grade students in rural North Carolina, Wolf and Foshee (2003) reconfigured the operationalization of anger expression to consist of three styles: *constructive* (comparable to the anger–discuss and

anger–control modes), *destructive direct* (comparable to the anger–out mode), and

destructive indirect (comparable to the anger–in mode). Twenty-eight percent of the

dating females and 15% of the dating males reported ever having engaged in aggressive

behavior that was not in self-defense. Moreover, whereas having *experienced* family

violence was weakly associated with female dating violence but strongly associated with

male dating violence, *witnessing* family violence was definitely associated with female

violent behavior but not with male violent behavior. In addition, experiencing and

witnessing family violence were positively associated with destructive direct and

destructive indirect anger expression in both girls and boys, and both styles of anger

expression were associated with perpetrating date-related violence for both genders.

This implied relationship between violent behavior and family structure was

further addressed by Lee's (2001) study of how the emotional experiences of children in

single-parent families, as well as their ability to regulate these emotions, affect the

children's behavioral problems after marital conflict and family disruption through

divorce or separation. Lee's finding that children exposed to marital violence experienced

negative emotions—anger, sadness, guilt, and conflicted loyalties—confirmed previous

research. Specifically, he found that anger and sadness are very closely related to

children's subsequent behavior problems; for example, in a post-divorce or separation

situation, particularly when the parents are in conflict, this parent-to-parent conflict can

easily become parent-to-child conflict, thereby forcing children to regulate their emotions

as best they can.

Self-Esteem

In a report on self-esteem in young people, the Teen Health Centre (2004) defined self-esteem as the extent to which individuals like, accept, and respect themselves as people. From their perspective, young people with low self-esteem are those who often demean their own talents, feel that others do not value them, feel powerless, allow themselves to be easily influenced by others, express a restricted range of emotions, avoid situations that provoke anxiety, find themselves easily frustrated and defensive, and blame others for their own weaknesses. In addition, they found that low self-esteem is correlated with low life satisfaction, loneliness, anxiety, resentment, irritability, and depression.

Conversely, the report noted that young people with high self-esteem have a number of corresponding traits: acting independently, assuming responsibility, feeling pride in their own accomplishments, approaching new challenges with enthusiasm, tolerating frustration well, and feeling capable of influencing others. It also reported a strong correlation between high self-esteem and academic success in high school, internal locus of control, high family income, and a positive sense of self-attractiveness. These observations are reflected in Stancato's (2001) analysis of the tragedy at Columbine High School in Littleton, Colorado, in which Eric Harris and Dylan Klebold chose to resolve their issues of negative self-concept and identity through violence, death, and suicide. Stancato therefore concluded that reducing or stopping school violence would require

identification of aggressive students and initiation of programs to develop their self-esteem.

Research on aggressive behavior has also integrated psychological factors. For example, after examining self-esteem, Crocker (2002) argued that "the crucial issue is not whether self-esteem is high or low, but whether people feel their self-esteem is under assault, and hence are attempting to restore it" (p. 599). Similarly, Seals and Young (2003) found higher levels of depression among both bullies and victims in seventh and eighth grade students but no significant differences in their levels of self-esteem. However, even though *both* bullies and victims had the lowest self-esteem of any groups in the study, the authors could draw no conclusions from their findings because of the small sample size. Nonetheless, in terms of the current research, this finding is highly suggestive of a possible dynamic relationship between being the target of another's aggression and being an aggressor, a relationship in which, as Prinstein et al. (2001) showed, girl victims are more likely to suffer a loss of self-esteem than boy victims.

Such gender differences and the importance of self-representations in predicting aggression also featured in Moretti et al.'s (2001) study of self-perception in both overt and relational aggression. In their sample of girls and boys referred to a community agency for behavior problems, the girls reported a higher level of engagement in relational aggression than boys, whereas the level of overt aggression was comparable for both genders. The authors concluded that actual engagement in aggressive behavior in girls considered to be at high risk is highly complex: "these girls are heavily engaged in

controlling and manipulating their social networks, and at the same time, are quite

ready to lash out physically toward others" (p. 119). Such high-risk girls had very

negative views of themselves and believed that their parents and peers also viewed them

negatively.

Nonetheless, self-representations were a more powerful predictor of aggressive

behavior than the representations of others. Moreover, whereas Moretti et al. (2001)

contended that self-representations tend to be relatively constant, young people are not

necessarily universally aggressive. Rather, in the Moretti et al. study, the targets of their

aggressive behavior were seemingly identified according to the extent to which they

represented some type of threat to perceptions of self and social status, the latter of which

depended in turn on perceptions of others' views of the self. Negative self-representation

thus appeared to increase the likelihood of aggressive behavior (Moretti et al.), a

conclusion that suggests a retaliatory component for aggression in this context.

The most direct view of self-esteem and aggression has been provided by

Baumeister et al. (2000), who offered the *theory of threatened egotism* as a realistic

explanation of the link. This theory "depicts aggression as a means of defending a highly

favorable view of self against someone who seeks to undermine or discredit that view"

(p. 26). In addition, the authors provided a cogent argument against the traditional view

of a causal relationship between low self-esteem and aggression:

> People with low self-esteem are oriented toward avoiding risk and loss,
> whereas attacking someone is eminently risky. People with low self-
> esteem lack confidence of success, whereas aggression is usually
> undertaken in the expectation of defeating the other person. Low self-

esteem involves submitting to influence, whereas aggression is often engaged in to resist and reject external influence. Perhaps most relevant, people with low self-esteem are confused and uncertain about who they are, whereas aggression is likely to be an attempt to defend and assert a strongly held opinion about oneself. (p. 26)

In contrast, those with high self-esteem appear to occupy the two extreme ends of the hostility and aggression spectrum. While some researchers have hypothesized that stability of self-esteem is the determining factor, others have suggested the important role of narcissism, defined by the American Psychiatric Association (1994) as holding "grandiose views of personal superiority, an inflated sense of entitlement, low empathy toward others, fantasies of personal greatness, a belief that ordinary people cannot understand one, and the like" (p. 27). However, Baumeister and colleagues (2000) emphasized that narcissism, although linked to aggression, is a risk factor, not a direct cause. Rather, the direct cause is usually some form of provocation "sufficient to arouse the narcissistic aggressor, and is thus a means of defending and asserting the grandiose self-view" (p. 28). Indeed, Bushman and Baumeister (1998) found that the most aggressive individuals in their study also scored high on a measure of narcissism and rationalized their aggressive behavior by contending that they were retaliating against being insulted. That is, people do not view a response to a provocation to be an act of aggression as long as they feel their retaliation causes a level of harm that is comparable to their subjective assessment of the harm done to them. As a result, the most aggressive persons in any population are likely to be those with the lowest tolerance for acts of provocation. Even though this study was conducted in an experimental laboratory setting,

the results are nonetheless suggestive of current thinking on aggressive narcissistic individuals.

Baumeister et al. (2000) also suggested that no simple link is likely between self-esteem and aggression, recommending rather that researchers look more closely at which individuals with high self-esteem are also aggressive. In their view, "aggression is most likely when people with a narcissistically inflated view of their own personal superiority encounter someone who explicitly disputes that opinion" (p. 28). This argument appears to be supported by Talbott et al.'s (2002) work on patterns of escalating violence among urban girls. Such violence begins with relationally aggressive behavior—including gossip, rumors, and insults—suggesting that high levels of self-esteem are at work in both the aggressors and the targets of their aggression.

The perception by aggressive girls of the hostility in their social environments was the subject of a study by Pugh-Lilly et al. (2001), which used the voices of poor or working class African American girls attending an alternative school to convey the cognitive and emotional processes by which these girls understood their engagement in aggressive behavior. The authors argued that their study provides a basis for the development of a model of aggressive female behavior in which self-interest and self-protection may be seen as operating within multiple contexts and environments that are subject to negotiation. Thus, the study provided a better understanding of aggressive behavior not only in this specific population but also in wider samples.

Family Influence

Much of the research into the family-related factors that influence children's violence has focused on children's responses to witnessing or being involved in parental conflicts. Whereas this body of literature is too substantial for full review here, it forms the context for the social learning theoretical background of the present study. For example, one study of over 300 Welsh children aged 11 to 12 focused on the children's perceptions of the threat of marital violence to their emotional security and the degree to which their behavioral responses to conflicts suggested that they were modeling their behavior (Kierkus & Baer, 2003). These children were shown vignettes depicting conflicts over adult-related subjects and conflicts over child-related subjects, including physical aggression toward spouse, physical aggression toward an object, threats to leave the family, verbal hostility, and nonverbal hostility expressed in facial and bodily gestures (Kierkus & Baer).

Whereas being exposed to aggressive, potentially destructive family conflicts was clearly related to increased anger in the children's responses, some child participants reported that their response to marital conflict was to avoid it, while others said that they would intervene in the conflict rather than imitate their parents' behavior (Kierkus & Baer, 2003). These results suggest that children are less likely to endorse behavioral responses that reflect parental behavior than emotional processes aimed at controlling their exposure: "Children frequently reported avoiding or intervening in the conflict rather than imitating or experiencing deregulation in response to parents' aggressive

behaviors" (Kierkus & Baer, pp. 38–39). This social learning aspect—whether the children regard the behavior as a model for their own actions—relates particularly to the present study's use of family structure as a variable.

Indeed, family structure is used as a variable in many studies, although it more typically appears in a long list of demographic variables in nationwide, longitudinal, or cross-sectional surveys rather than in smaller, more targeted quantitative and qualitative investigations. For example, in their large-scale Ontario Student Drug Use Surveys of 1993 and 1995, Kierkus and Baer (2002) operationalized family structure as intact (both natural/biological parents in residence), single-parent (one natural/biological parent in residence), reconstituted (one natural/biological parent and a stepparent), and neither natural parent. Age, gender, and socioeconomic status were used as controls. As intervening variables, they included affectional identification (the importance to children of their relationship with their parent[s]), direct supervision (weekend time spent at home), indirect supervision (how often parent/s knew where children were, ranging from *always* to *never*), communication with mother (how often children discussed their problems, ranging from *always* to *never*), communication with father, and relational quality (children's perceptions of how well they got along with their parent[s], ranging from *very well* to *not at all*). The scores on these variables were compiled to produce a single parental attachment value.

In addition, Kierkus and Baer (2002) used 12 types of delinquent behavior, including theft, property damage, selling drugs, hurting another on purpose, carrying a

weapon, participating in gang violence, breaking into a locked building, running away from home, and getting thrown out of the house. The participating children were asked to indicate the frequency with which they had engaged in each of the behaviors within the previous 12 months. The results showed family structure to be a significant predictor of 11 of these 16 delinquent behaviors: children from non-intact family structures were significantly more likely to have engaged in delinquent behavior. Thus, the researchers characterized the home in which neither natural parent resided as the most criminogenic type of family. Children from these families had lower levels of parental attachment, which seemingly led to delinquent behavior. Nonetheless, the study suffered from two major limitations: it made no distinction between male-headed and female-headed households, and the socioeconomic status variable was based on children's perceptions alone.

The study that most closely resembles the present investigation is that conducted by Ram and Hou (2005), which focused on sex differences and the effects of family structure on aggressive behavior in children. Specifically, the authors hypothesized that "gender-specific parenting practices and the quality of mother-daughter relationship protects daughters from the deleterious effects of family disruptions, while making boys vulnerable to those effects" (p. 331). This conjecture was based on the assumption that girls internalize and boys externalize their emotions.

Ram and Hou (2005) drew their data from a large-scale Canadian survey of over 22,000 children, from newborn to 11 years old, and their parents. In two analytical cycles

of data for approximately 3,000 children aged 4 to 7, the researchers measured both direct aggression—in the form of property offenses (destroying their own or another's property, stealing, vandalizing, lying, cheating)—and indirect aggression—measured as children's relationally aggressive responses when someone annoyed them ("trying to get others to dislike that person, becoming the friend of another child as revenge, saying bad things behind the backs of other children, and telling another child's secrets to a third person" [p. 332]). Specifically, they operationalized family structure as original parents, single mother, intact, and stepfamily and checked for the presence of original parents and single mothers in both study cycles, as well as for a change from a two-parent to a single-mother family or from an intact to a stepfamily between the cycles.

They found that scores on the property offenses measure did not differ for boys and girls living with single mothers, but that the effect of family structure became more negative and stronger on boys the longer they lived with their mothers (Ram & Hou, 2005). However, for girls, the reverse appeared to be true: "girls in general not only show greater indirect aggression, but their aggression level is intensified significantly when they face family changes…. the stepfamily environment is significantly more harmful to girls than to boys" (p. 334).

The influence of family structure on aggression as it relates to weapon carrying was studied by Orpinas et al. (1999), who also included relationship with parents, parental monitoring, and parental attitudes toward fighting (as perceived by the children). Using a cross-sectional survey of over 8,800 sixth, seventh, and eighth grade students in

urban Texas schools, they found that students whose relationship with their parents was poor, who were not monitored closely by their parents, whose perception was that their parents would support their involvement in fighting, and/or whose families were not intact had higher aggression scores, got involved in fights more often, were injured in fights more often, and reported carrying weapons to school with more frequency. However, because the study was cross sectional, the authors were unable to conclude any causal relationships among the variables. Nonetheless, the findings are interesting in that family structure was less predictive of aggressive behavior than the other family-related constructs used in the study.

The possibility that the accepted relationship between family structure and delinquency in young people could be interactive and subject to changes in circumstances, particularly gender and socioeconomic status, was examined by Kierkus and Baer (2003), again using data from a large-scale survey of over 1,800 Canadian children. In addition to operationalizing family structure according to four categories (intact, single parent, reconstituted home, neither natural parent home), they also used 16 dependent delinquency behavior variables, including theft, property damage, drug dealing, physical fighting, weapon carrying, running away, and being thrown out of the home. Also considered were drug use and truancy. As regards family structure, the authors maintained that family structure influences delinquent behavior to the same degree in boys and girls. With regard to the effects of socioeconomic status, they concluded that only broken families with higher socioeconomic status were associated

with truancy but were at a loss to explain why there should be a relation with this kind of delinquency and not the other behaviors analyzed.

One segment of the research on the links between family structure and children's behaviors has focused primarily on risk behaviors, most of which are health risk behaviors—smoking, alcohol, drug use, and sexual activity—rather than delinquency as defined by the juvenile justice system. In addition, some researchers have included involvement with violence as a risk behavior. For example, Blum et al. (2000) analyzed data from the large-scale cross-sectional National Longitudinal Study of Adolescent Health to discover links between risk behaviors and three demographic variables: race/ethnicity, income, and family structure. They found that African American and Latino adolescents were more likely than White adolescents to report engagement in violence involving weapons, although in their view, such engagement could be more a function of poverty than of race or ethnicity. Overall, adolescents from all race or ethnicity categories from single parent families were more likely to engage in all of the risky behaviors assessed, with the exception of suicidal thoughts and attempts.

McNulty and Bellair (2003) also used data from a national survey, the National Education Longitudinal Survey (NELS), to develop a model of the differences in violent behavior between White youth and youth in five racial-ethnic groups, with a focus on the role of community context, family socioeconomic status, and social capital. Moreover, these authors considered the influence of family structure as part of a larger context of social and economic disadvantage. As McNulty and Bellair pointed out, national statistics

suggest that children in disadvantaged communities are likely to reside in single-parent households with limited financial and social resources, to have experienced family disruption, to have weaker parental bonds, and to be subject to less parental monitoring and supervision. These conditions may persist even in reconstituted stepfamilies due to the carryover of emotional distress and conflict and of confusion over parental authority and discipline. Yet, despite a thorough analysis of all the factors for all ethnic groups surveyed, McNulty and Bellair concluded that generalizations about racial-ethnic groups can be highly misleading because of a great deal of within-group variation, particularly in the area of family resources.

In one of the few studies to address the correlations among aggressive behavior, family factors, and gender, Schiff and McKay (2003) associated exposure to family violence and specific parenting practices with aggression in African American girls. Specifically, these authors assessed their participants' exposure to violence, their behavior problems (as reported by their mothers), the level of monitoring provided by their mothers, the level of conflicts with their mothers, and family cohesion. Those girls that had been exposed to community violence had more aggressive behavioral problems; however, all the girls' families, while they showed no differences related to monitoring or conflicts, were also less cohesive, suggesting that the influence of peers may be stronger than that of family.

Nonetheless, a contrasting outcome was found in Henry, Tolan, and Gorman-Smith's (2001) study of various peer influences on different types of delinquent behavior,

which showed that cohesive families having warm interpersonal relationships are a

stronger element in positive socialization than peer affiliations. This latter study is typical

of the trend in empirical research to investigate the role of family functioning and

parenting rather than peer influences in the socialization of young people, a trend that the

present research follows.

Methodological Issues

The growing interest in studying younger populations has led to recent age-

appropriate amendments of measurement tools originally designed for adult populations.

Such amendments include Tapper and Boulton's (2000) refinement of the EXPAGG

(Expressive Representations of Aggression) questionnaire originally developed in the late

1980s (Baumeister et al., 2000) to measure adult use of expressive and instrumental

representations of aggression. The original instrument, which included a few items

describing verbal aggression, primarily used examples of physical aggression and was

first modified by Archer and Parker (1994) to assess representations of both direct and

indirect aggression in children aged 8 to 11. However, Tapper and Boulton, finding that

the wording failed to distinguish clearly between direct and indirect aggressive behavior

and was possibly beyond the comprehension of children in this age group, reworked the

wording and devised three separate instruments to unpack "sex and age differences in

children's social representations of physical, verbal, and indirect forms of aggression" (p.

444). These three scales measured hitting and fighting (physical aggression), saying nasty

things to people and arguing (verbal aggression), and saying nasty things behind

someone's back (indirect, relational aggression). They also incorporated means of studying within-sex differences.

Despite such attempts to improve instrumentation, methodological concerns remain that were related to the critical components of the present research, particularly the use of family structure as a variable, the use of self-reports as the primary means of data collection, and the participation of middle school-aged children in the study sample. As regards the first, family structure research has been limited by the design and scope of previous studies and by the operationalization of the construct itself. As Kierkus and Baer (2002) pointed out, large-scale population-based surveys tend to include data on crime, misbehavior in the home, and minor and serious delinquency. In addition, many surveys include a huge range of demographic variables: age, socioeconomic status, gender, race-ethnicity, parents' educational level, and so on. Thus, the very scope of these large surveys has hampered some researchers. For example, Kierkus and Baer contended that *delinquent behavior* is too general a term to be a very useful construct for research but that highly specific types of behavior may be correlated with other variables such as family structure.

The primary problem in family structure research is the method used to operationalize the term. As Kierkus and Baer (2002) observed, the earliest research simply operationalized family structure as intact or broken. More recently, researchers have introduced the reconstituted family and single parent variables to reflect social changes. However, other researchers have gone even further. For example, Orpinas et al.

(1999) asked their participants to identify whom they "live with most of the time," offering them a choice of mother and father, mother and stepfather, father and stepmother, only mother, only grandparents, and other adults.

Even though the level of congruence between participants' and others' perceptions is particularly important to interpreting self-reported data (Weinberger, 1996), the use of such data is widely accepted in the field. For example, Loeber, Stouthamer-Loeber andVan Kammer (1998) used multiple versions of their Antisocial Behavior Scale to produce separate sets of responses for students, parents, and teachers; while McConville and Cornell (2003) used self reports of aggressive behavior, peer and teacher denominations of students as bullies, and school discipline referrals. To increase their data's reliability, McConville and Cornell also assessed the context for aggressive behavior using a School Climate Survey on student perceptions of both "the extent and nature of bullying" in middle school and included an 11-item Attitudes Towards Peer Aggression scale designed "to assess normative beliefs and outcome expectancies for aggressive and bullying behavior" (p. 181). Nonetheless, as Weinberger showed empirically, there may always be statistical outliers in self-reported data, which suggests both that some individuals may have highly distorted perceptions of themselves and their behavior and that the reports of others (e.g., teachers, peers, and parents) can only provide partial control over these data.

Another important characteristic of self-report tools (Blount, Evans, Birch, Warren, & Norton, 2002) is brevity, an aspect of great importance to the present study

given the sample studied. Most particularly, some self-report measures are too brief to enable researchers to assess how participants feel about the effects of their aggressive behavior on their victims, what their beliefs are about the benefits of aggression, or their rationale or justification for this behavior (McConville & Cornell, 2003). To address this problem, this research employed the Attitudes Towards Violence Scale developed by Funk et al. (1999), whose principal advantages are that it was specifically developed to measure adolescents' beliefs about the likelihood of specific responses to potential violent situations, is clearly understandable by study participants, and is simple to administer. Testing has shown that the results obtained with the scale reflect attitudes with strong links to violent behavior (Tolan, Guerra, & Kendal 1995; Velicer, Huckel, & Hansen, 1989). Thus, the research instrumentation selected for the research was able to avoid some of the methodological issues encountered by previous empirical studies.

<div align="center">Summary</div>

The above review of the literature provides the framework for this study of the relative strength of predictors of violent behavior in a sample of middle school females. This overview points to a need for research on the relationship between school violence and possible predictors such as attitudes towards violence, self-esteem, and family structure, which are major variables of interest in this current study.

At present, the theoretical basis for research into violent and aggressive behavior is almost exclusively some version of social learning theory, which proposes that children learn such behavior from adult, parental, and peer models and scripts. That is, as part of

their developmental socialization, children develop particular expectancies of the likely

results of their behaviors and, through modeling, assign values to these anticipated

outcomes. Accordingly, this study links the social learning theory framework to findings

about the predictors of middle school girls' aggressive behavior (see chapter 5).

Overall, very little is actually known about aggressive and violent behavior in

girls, particularly their use of physical forms of aggression. The most significant advance

in recent years—the distinction between relational (social) and physical or direct

aggression in girls—has tended to overshadow the increase in girls' involvement in

physical aggression and violence as researchers focus on girls' preference for relational

aggression. In contrast, the present research focuses on the antecedents of self-reported

violent behavior at school among middle school girls and aims to explore the relationship

between such behavior and the girls' self-esteem, family structure, and attitudes toward

violence (among other variables). A key element of this exploration is determining the

relative strength of whatever variables are found to be predictors of school violence

among the girls.

Methodologically, despite some small-scale qualitative investigations and even

fewer small-scale quantitative studies, most researchers to date have relied on large-scale,

community-based, cross-sectional surveys for their data. The present research adds to the

body of small-scale quantitative research studies on aggressive and violent behaviors in

middle school females.

CHAPTER 3:

METHODOLOGY

Introduction

This chapter explains the method used in the research. Following this

introduction, the chapter is divided into five main sections. The first explains the research

design, as well as its underlying rationale and theoretical basis; the second discusses the

study and sample setting; and the third presents the research instrumentation. The fourth

section explains the data collection and analysis procedures, as well as the hypotheses

related to the research question. The final section details the measures taken to protect

participants' rights.

Research Design and Approach

The purpose of this study was to determine the relative strength of predictors of

school violence among a sample of middle school girls. To address this problem, a

method was needed that would (a) determine whether any of several potential predictors

actually correlate with school violence among the participants, and (b) determine the

relative strengths of any such correlations. The most appropriate means for fulfilling

these two requirements was a quantitative method, because it allowed the assignment of

numerical values to several independent variables and to the dependent variable (violent

behavior at school). Such a method also enabled statistical analysis to identify the

correlations between the independent variables and the dependent variable and determine

their relative strength. Specific aspects of the quantitative design include sample

selection, determination of appropriate measures for the dependent variable and each

independent variable, and data collection and analysis.

<div align="center">Setting and Sampling Method</div>

The potential pool of participants for the research study consisted of 309 female

students in a single middle school in the Hamilton County (Middle School) Public School

District in Chattanooga, Tennessee. At the time of study, a total of 649 students aged 11

to 15 in grades six through eight were enrolled in the school, among whom 91 female

students were enrolled in the sixth grade, 109 in the seventh grade, and 109 in the eighth

grade. The ethnic profile of these female students was as follows: Caucasian, 214 (69%);

African American, 74 (24%); and other ethnicities, 21 (7%).

Of the 309 potential participants, the minimum required sample size was

estimated to be 103, meaning a participation response rate of about one third, which was

deemed a reasonable expectation. This required sample size estimate was based on the

following rule of thumb for testing individual predictors in a multiple regression analysis

(Tabachnick & Fidell, 2001): $N \geq 104 + m$ (where N is the number of participants and m

is the number of predictors).

From among these female students, a convenience sample was recruited from

English classes offered at the school in which the study was conducted. Such recruitment

was based on the rationale that English was a required core course and therefore offered a

good opportunity to reach all the school's female students. There were no exclusion

criteria for study participation; all females in Grades 6 through 8 at the school were

eligible to participate.

After meeting with and obtaining permission to conduct the study from the

Superintendent of Schools for the county (see Appendix E), the researcher met with the

middle school's principal and explained the nature of the study. Once Walden University

Institutional Review Board permission for the study had been received (see Appendix F,

the principal and the researcher visited English classes for each of the three grades to

explain the nature of the study to the girls while the boys performed class work. Packets

with information for parents about the study, including measures to be taken to insure

participant anonymity and confidentiality, were given to students to take home, along

with parental and student consent forms (see Appendixes A and B). Those students who

returned both signed consent forms made up the study sample, in all a total of 229 female

middle school students. The signed consent forms were retained.

<div align="center">Instrumentation</div>

The instrument for data collection was a four-part Student Survey (see Appendix

C). Part One of the survey, the demographic questionnaire, asked participants to supply

sociodemographic information, including ethnicity, age, grade level, eligibility for free or

reduced lunch, family structure, and grades. Student replies to these questions provided

data for five variables considered nonintervenable: age, grade level, grades, family

structure, and eligibility for free or reduced lunch. For family structure, students were

asked with whom they lived and were given a choice among the following alternatives:

both biological parents, one biological parent, grandparent, other relatives, or a

nonrelative. Eligibility for free or reduced lunch was of interest because such eligibility is

an indicator of family financial means.

The demographic questionnaire also had eight items relating to four intervenable

independent variables. One question asked about students' illicit drug use and a second

about gang involvement. The former asked students to state, on a 6-point Likert-type

scale ranging from 1 (*daily)* to 6 (*never)* on how often they used illicit drugs. The gang

membership question asked students to reply "yes" or "no" to whether they had ever been

a gang member.

Originally, the degree of parental monitoring of students' activities was to be

measured by a composite variable constructed from replies to three separate items using a

5-point Likert-type scale ranging from 1 (*never*) to 5 (*always)*. Student observation of

violence was to be similarly measured based on replies to three separate questions asking,

on a six-point Likert-type scale ranging from 1 (*daily*) to 6 (*never)*, how often the student

had observed violence in the home, at school, and in the community. However, because

the replies to these two different sets of three questions failed to achieve sufficient

internal reliability to construct the composite variables, the final analysis used six

separate independent variables, three based on each of the three parental monitoring

questions and three on each of the three observations of violence questions (see chapter 4

for details).

Part Two of the survey, the School Violence Inventory (Anderson, 2004), was a 10-item measure of engagement in suspendable school offenses. The items referred to the most prevalent and severe disturbances generally exhibited in a school setting and represented types of violent behavior identified in the literature review. Students were asked how often they had engaged in 10 behaviors on a five-point Likert-type scale ranging from 1 (*not at all*) to 5 (*daily)*. The replies to these 10 items were then used to construct a composite variable for school violence, which also constituted the study's criterion variable. An eleventh item asked students how often they had been suspended for engagement in any of the behaviors mentioned in the previous 10 items. Replies to this question provide data for the independent variable school suspension.

Part Three of the survey consisted of the 10-item Brief Rosenberg Self-Esteem Scale (Rosenberg, 1965), which assesses students' views of themselves in terms of self-esteem. Students replied on a four-point Likert-type scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*) to succinctly phrased items in easily understandable language; for example: "On the whole, I am satisfied with myself"; "I feel I do not have much to be proud of"; "I wish I could have more respect for myself"; and "I take a positive attitude toward myself." Such clarity and the inclusion of only 10 items were important because middle school students can be expected to have a shorter attention span than adults. Thus, the brevity of both the scale and the items helped assure that all, or at least a majority, of the students would answer all the questions. Use of the Rosenberg scale does not require

author permission; however, a brief description of the study was sent to the author's family.

The Brief Rosenberg Self-Esteem Scale, a 10-item scale that measures global self esteem, has been found to have high reliability, with test-retest correlations ranging from about .82 to .88 and a Cronbach's alpha between about .77 and .88 (Blascovich & Tamaka, 1993).

Part Four of the survey consisted of the Attitudes Towards Violence Scale (Funk et al., 1999), amended so that the phrasings would be clear and appropriate for middle school students. This scale measures attitudes toward violent behavior by asking students to reply to 19 items on a four-point Likert-type scale ranging from 1 (*strongly agree*) to 4 (*strongly disagree*). Specifically, by including such statements as "If a person hits you, you should hit them back"; "It's okay to start rumors about someone"; and "People who use violence get respect"; it measures a broad range of violence and aggression, including relational, intangible, and hostile outcomes. Student replies to these 19 items were used to construct a composite independent variable for attitude toward violence.

The Attitudes Towards Violence Scale (Funk et al., 1999) has a well-demonstrated internal reliability (Cronbach's alpha = .86) and an impressive two-factor solution: reactive violence (violence used in response to actual or perceived threat) and culture of violence as an acceptable and valued activity(Tolan, 2001). All the above variables are summarized below in Table 1.

Table 1

Composition of Variables and Planned Hierarchical Analysis

Criterion variable	Composition	Survey[a] section
Engagement in suspendable offenses	Composite of the 10-item School Violence Inventory	Part Two, Items 1–10
Intervenable variables		
Parental monitoring	Measured by 3 items: Your parents...... let you come and go as you please. know where you are. know who you are with.	Part One, Items 6–8
Observation of violence	Measured by 3 items on observation of violence at home, at school, and in the community	Part One, Items 10–12
Use of illicit drugs	How often do you use alcohol, marijuana, or other drugs?	Part One, Item 13
Gang membership	Have you ever been a member of a gang?	Part One, Item 14
Prior suspension	How many times have you been suspended?	Part Two, Item 11
Self-esteem	Composite of answers to the Brief Rosenberg Self-Esteem Scale	Part Three, items 1–10
Attitudes towards violence	Composite of answers to the Attitudes Towards Violence Scale	Part four, items 1–19
Nonintervenable variables		
Age	Expected range from 10 to 15 years	Part One, Item 2
Grade level	Sixth, seventh, and eighth	Part One, Item 3
Lunch eligibility	Do you get free or reduced lunch?	Part One, Item 4
Family structure	Live with: (1) both parents, (2) one parent, (3) grandparent, (4) other relative(s), or (5) nonrelative	Part One, Item 5

[a]An adapted version of the Attitudes Towards Violence Scale was used with permission from Sage Publications (see Appendix G).

Overall, care was taken to insure that all parts of the student survey used clear, concise language understandable by middle school-aged girls. Choosing appropriate instruments for the sample helped insure that the participants would complete the survey.

Data Collection and Analysis

Data Collection Procedures

All survey forms, contained in large envelopes, were distributed in each English class on the same day to females who had returned the consent forms. Neither the survey forms nor the envelopes had any identifying characteristics. While the girls completed the survey, nonparticipating students took a test and then did homework at their desks until all participants had submitted the completed survey.

Because completed survey forms were dropped into the slot in a sealed box, only the researcher had access to the survey results. Once all forms had been received, the researcher checked all forms for completeness and entered the data into the SPSS program for statistical analysis. Data were retained and are available from the researcher.

Research Question and Hypotheses

The study aimed to answer the following research question: What is the relative relationship between the key predictor variables of engagement in suspendable school offenses and actual engagement in such offenses among middle school girls? Since the research question presumed that the set of predictor variables would significantly predict engagement in suspendable school offenses, two sets of research and null hypotheses

were offered; the first set relating to the presumption and the second aimed directly at

answering the research question:

Research hypothesis 1. In a multiple regression, the combined effect of key

predictors will significantly predict engagement in suspendable school offenses ($R > 0$, p

$< .05$).

Null hypothesis 1. In a multiple regression, the combined effect of key predictors

will not significantly predict engagement in suspendable school offenses ($R = 0$).

Research hypothesis 2. In a multiple regression, the unique effects (i.e., part

correlations) of each predictor variable will not be equal.

Null hypothesis 2. In a multiple regression, the unique effects (i.e., part

correlations) of each predictor variable will be equal.

Data Analysis

Data were entered into SPSS version 12.0 for Windows. Descriptive statistics

were reported for all items and for the scale composites computed for the 10-item self-

esteem measure, the 19-item attitude toward violence measure, and the 10-item School

Violence Inventory. Cronbach's alpha was also calculated and reported for all composites

as an index of reliability (see chapter 4).

A two-block hierarchical multiple regression was then conducted by first entering

the intervenable variables and then the nonintervenable variables, thus allowing the

intervenable variables to explain as much as possible of the variance in student

engagement in suspendable school offenses before it was determined whether adding the nonintervenable variables would still contribute significantly to the model.

Ethical Considerations

Careful consideration was given to the nature of the study and its possible effects on the participants. As outlined in the previous chapter, prior to survey administration, the informed parent consent form and student assent form were distributed to all potential participants and their parent(s) or guardian(s), together with information about the procedures for study participation, confidentiality issues, the voluntary nature of the study, the risks and benefits of participating in the study, and contact information for the researcher and her advisor in the case of individual questions about the study.

The informed consent forms (Appendixes A and B) clearly stated that all study records would remain confidential and that only the researcher would have access to those records. In addition, potential participants were notified that they were free to withdraw from the study at any time without consequences. They were also assured that their decision on whether to participate would in no way affect their relationship with the school district.

The study posed no physical risks or benefits for participants, who were notified prior to survey administration that they had no obligation to complete any part of the study about which they felt uncomfortable. Informed consent was signaled by the teacher's receiving a signed copy of the informed consent forms as evidence that both the student and her parent or guardian understood and agreed to the study conditions.

CHAPTER 4:

RESULTS

Introduction

This chapter on the study results is divided into six main parts. Following this brief introduction, the first section describes the sample and reports the demographic statistics for the female middle school participants. The second section focuses on instrument reliability and the development of composite measurement scales. The third presents the results of the hierarchical regression analysis, and the fourth reports how these results were used to answer the research question and evaluate the study hypotheses. The fifth section discusses the results, and the final section provides a summary of the chapter.

The Findings

Of the 229 female middle school students sampled, 176 answered every survey item, but 53 missed one or more responses. After data collection, the decision was made to exclude from the sample any questionnaire missing more than 10% of the data; therefore, a student missing six or more out of a possible 55 responses was excluded. In total, 37 participants had one missing response, 9 had two, 4 had three, and 3 had five. No student had six or more missing responses. Therefore, the responses of all 229 students were kept for further analysis.

A total of 227 students replied to the item on ethnicity. Of these, 136 (59.9%) reported being White, 62 (27.3%) reported being African American, 17 (7.5%) reported

being Hispanic, 2 (0.9%) reported being American Indian, and 10 (4.4%) reported

being other.

In terms of the nonintervenable variables, 227 out of 229 participants reported

their age, with 32 (14.1%) being 11 years old, 70 (30.8%) being 12, 71 (31.3%) being 13,

46 (20.3%) being 14, and 8 (3.5%) being 15. Sixty-five students (28.9%) reported being

in the sixth grade, 70 (31.1%) in the seventh grade, and 90 (40.0%) in the ninth grade (*n*

= 225). Similarly, 126 students reported that they receive lunch free or at a reduced price,

compared with 100 (44.2%) who did not (*n* = 226). Eighty-three students (36.7%)

reported living with both parents, 127 (56.2%) with one parent, 10 (4.4%) with a

grandparent, 5 (2.2%) with another relative, and 1 (0.4%) with a nonrelative (*n* = 226).

Seventy-five percent of respondents (32.9%) reported receiving mostly A grades, 91

(39.9%) mostly B grades, 46 (20.2%) mostly C grades, 13 (5.7%) mostly D grades, and 3

(1.3%) mostly F grades (*n* = 228).

In terms of the intervenable variables, all participants responded to the item on

alcohol, marijuana, and other drug use. However, only 2 (0.9%) respondents reported

using such substances daily, 5 (2.2%) reported using them one or two times per week, 7

(3.1%) reported using them one or two times per month, 1 (0.4%) reported using them

one or two times per year, 8 (3.5%) reported using them only once or twice ever, and 206

(90.0%) reported never using such substances (*N* = 229). Of the 226 participants

reporting whether they had ever been a member of a gang, 202 (89.4%) reported never

having been a gang member, while 24 (10.6%) reported that they had.

In terms of the number of suspensions for engaging in any of the 10 items listed in the survey Part Two (see Appendix C), 177 (84.3%) reported never having been suspended, 21 (10.0%) reported one suspension, 5 (2.4%) reported two, 2 (1.0%) reported three, 1 (0.5%) reported four, 2 (1.0%) reported five, 1 (0.5%) reported six, and 1 (0.5%) reported seven suspensions. These student characteristics, including the numbers and percentages in each category, are given in Table 2.

Table 2

Descriptive Statistics

Student characteristics	*n*	Percent
Race	227	
African American/Black	62	27.3
White/Non-Hispanic	136	59.9
American India	20	.9
Hispanic	177	.5
Other	10	4.4
Age (in years)	227	
11	32	14.1
12	70	30.8
13	71	31.3
14	46	20.3
15	8	3.5
Grade	225	
6	65	31.1
8	90	40.0
Receive free or reduced lunch	226	
Yes	126	55.8
No	100	44.2

Table 2 (continued)

Student characteristics	*n*	Percent
Adult(s) resided with	226	
Both parents	83	36.7
One parent	127	56.2
Grandparent	10	4.4
Another relative	5	2.2
Nonrelative	1	0.4
Usual grade level	228	
A	75	32.9
B	91	39.9
C	46	20.2
D	13	5.7
F	3	1.3
Frequency of alcohol, marijuana, or other drug use	229	
Daily	2	0.9
1–2 times per week	5	2.2
1–2 times per month	7	3.1
1–2 times per year	1	0.4
Only once or twice ever	8	3.5
Never	206	90.0
Gang membership	226	
Yes	24	10.6
No	202	89.4
Suspensions for engaging in listed actions	210	
0	177	84.3
1	10.0	
2	5	2.4
3	2	1.0
4	1	0.5
5	2	1.0
6	1	0.5
7	1	0.5

Note: N = 229.

Scale Development and Instrument Reliabilities

As explained in chapter 3, several composite variable scales were developed

based on student responses, including a parental monitoring scale, an observation of

violence scale, a self-esteem scale, an attitude toward violence scale, and a suspendable

school offenses scale to serve as the criterion variable. The composite variables for each

scale, together with the reliability figures, are described and summarized in Table 3.

Table 3

Scale Development and Reliabilities

Scale	# of items	Cronbach's α	Skewness	*M*	*SD*
Parental monitoring*	3	.582	2.737		
Observation of violence*	3	.582			
Self-esteem	10	.812	-.405	3.012	.514
Attitudes towards violence	.850	-.058	3.025	.462	
School violence[†]	10	.846	1.662	1.632	.685

[*]Items analyzed separately due to low reliability of composite.
[†] Criterion variable.

Parental Monitoring

A single scale for parental monitoring was based on student replies to Part One

Items 6, 7, and 8. A total of 228 students responded to all three items, while 1 student

answered two. For that student, the mean of the two responses was used. To construct a

composite mean required reverse scoring of Item 6 ("How often do your

parent(s)/guardian let you come and go as you please?") because lower scores on that

question indicated greater parental monitoring, while lower scores on Items 7 and 8 indicated less parental monitoring.

The means and standard deviations for student replies to the three questions were 3.224 (SD = 1.044) for item 6, 4.585 (SD = .754) for question 7, and 4.441 (SD = .974) for question 8. Cronbach's alpha for the three item together was .582, indicating a low correlation among the responses, although reverse scoring question 6 increased the Cronbach alpha considerably (to .73). Thus, even though this alpha was still not considered particularly high, the replies to questions 6, 7, and 8 were analyzed separately in the hierarchical linear regression.

Observation of Violence

A single scale for the observation of violence was developed based on student replies to Items 10, 11, and 12 of the survey Part One, which inquired how often the student had observed violence in the home, the school, and the community, respectively. In all, 226 students answered all three items, while 2 answered two and 1 answered only one. Using only the responses of the students who replied to all three items, the means for Items10, 11, and 12 were 4.779 (SD = 1.504), 3.509 (SD = 1.772), and 3.943 (SD = 1.787), respectively. Cronbach's alpha for the three items together was .582, which indicated that the three items did not constitute a unidimensional construct. In addition, eliminating replies to one of the items did not appreciably improve the Cronbach alpha score. Therefore, student answers to items 10, 11, and 12 were analyzed separately.

Self-Esteem

A single composite variable for self-esteem was developed based on student replies to Part Three of the survey, the 10-item Brief Rosenberg Self-Esteem Scale (SES), which uses a five-point scale from 1 (*strongly agree*) to 5 (*strongly disagree)*. Items 1, 3, 4, 7, and 10 were reverse coded so that higher scores mean higher self-esteem across all items. Using the responses of the 219 students who answered all 10 items, the means ranged from 2.174 (*SD* = 1.012) for Item 8, "I wish I could have more respect for myself," to 3.347 (*SD* = .709) for Item 3, "I feel that I have a number of good qualities" (reverse scored).

Cronbach's alpha for replies to the 10 self-esteem items was .812, which indicates an acceptable degree of interitem consistency. Thus, a composite scale for self-esteem was created using the responses of all 229 students. In this case, the problem of missing responses was considered minor, because none of the 10 students with missing responses missed more than two SES items. Therefore, the means scores for these students' replies were based on the items answered. The mean of the resulting composite variable was 3.012 (*SD* = .514).

Attitudes Towards Violence

A single composite scale for attitude toward violence was developed based on student replies to Part Four of the survey, the 19-item amended version of the Attitudes Towards Violence Scale, measured on a four-point scale from 1 (*strongly agree*) to 5 (*strongly disagree).* Items 4, 14, 16, and 17 of this scale were also reverse coded so that

higher scores mean a higher antiviolence attitude. Using the replies of the 214 students

who answered all 10 items, the means ranged from 1.818 (*SD* = .883) for Item 11, "It's

okay to do whatever it takes to protect yourself," to 3.678 (*SD* = .638) for Item 2, "I can

see myself joining a gang."

Cronbach's alpha for answers to the Attitudes Towards Violence Scale was .850,

which again indicates an acceptable degree of interitem consistency. Thus, a composite

scale for attitude toward violence was created based on the responses of all 229 students

to the 19 questions. Again, the missing data problem was considered minor because the

15 students with missing responses missed no more than three questions. Therefore, the

means for these student responses were based on the items answered. The overall mean

of the composite variable was 3.025 (*SD* = .462).

School Violence

A single composite scale for school violence was developed based on student

replies to Part Two of the survey, the 10-item School Violence Inventory, which used a

five-point scale from 1(*not at all*) to 5 (*daily*) with higher scores indicating a greater

engagement in violent behaviors at school. Using the replies of the 222 students who

answered all 10 items, the means ranged from 1.059 (*SD* = .331) for Item 9, "possession

or use of a deadly weapon," to 2.604 (*SD* = 1.539), "abusive language (spoken, written,

or gestured)."

Cronbach's alpha for replies to the School Violence Inventory was .846, which

again indicates an acceptable degree of interitem consistency. Therefore, a composite

scale for school violence was created using the responses of all 229 students to the 10 items. Once more, the problem of missing data was considered minor because none of the 7 students with missing responses missed more than two items. The means for these students were based on items answered. The mean of the composite variable was 1.632 ($SD = .685$), and this composite scale served as the criterion variable for the study.

<center>Bivariate Correlations and Hierarchical Regression</center>

The primary study objective was to examine the relative relationship of key predictors of engagement in suspendable school offenses as measured by the 10-item School Violence Inventory (SVI). Anticipated predictors were age, grade, race/ethnicity, grade point average, family structure, school suspension, drug use, gang membership, self-esteem, attitude toward violence, parental monitoring, and observation of violence.

The expected relationships were assessed by Pearson product-moment correlations between the SVI composite variable (engagement in suspendable school offenses) and the predictor variables. Table 4 presents the correlation matrix showing a number of significant relationships. After taking into account the direction of scoring for each item, engagement in suspendable school offenses was significantly and positively associated with age, grade, gang membership, number of times suspended, drug use, and observation of violence but significantly and negatively associated with parental monitoring, self-esteem, and an antiviolence attitude (at the .01 level). No significant associations were found between engagement in suspendable school offenses and family structure, grade point average, or receiving free or reduced school lunch.

Table 4

Correlation Coefficients for Student Violence Inventory (SVI) with Predictor Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. SVI	1.00																
2. Mon 6	**.212**	1.00															
3. Mon 7	**-.297**	**-.247**	1.00														
4. Mon 8	**-.365**	**-.192**	**.602**	1.00													
5. Vio10	**-.309**	*-.147*	**.320**	**.328**	1.00												
6. Vio11	**-.411**	-.115	**.190**	*.144*	**.253**	1.00											
7. Vio12	**-.299**	*-.164*	*.142*	.121	**.270**	**.419**	1.00										
8. Drugs	**-.409**	*-.142*	**.426**	**.405**	**.363**	.111	**.206**	1.00									
9. Gang	**.467**	**.183**	**-.229**	**-.259**	**-.172**	**-.197**	**-.180**	**-.213**	1.00								
10. Susp	**.519**	.120	**-.367**	**-.268**	-.089	**-.260**	**-.202**	**-.408**	**.442**	1.00							
11. SES	**-.232**	*-.155*	**.284**	**.326**	**.319**	.109	**.242**	**.319**	-.053	-.156	1.00						
12. ATV	**-.541**	**-.242**	**.385**	**.479**	**.285**	**.230**	**.341**	**.406**	**-.377**	**-.441**	**.274**	1.00					
13. Age	**.265**	.024	**-.176**	**-.221**	-.093	-.097	**-.276**	**-.238**	**.211**	**.187**	**-.268**	**-.344**	1.00				
14. Grade	**.324**	.002	**-.175**	**-.209**	-.119	-.082	**-.268**	**-.208**	**.217**	.136	**-.223**	**-.299**	**.784**	1.00			
15. Lunch	.093	.083	.011	-.008	-.025	-.020	-.031	-.039	.048	*.145*	-.010	-.120	.107	-.025	1.00		
16. Livew	.029	-.033	-.085	-.079	.001	-.084	.024	-.072	.005	.115	-.147	-.084	-.036	**-.171**	.076	1.00	
17. GPA	.086	.082	*-.159*	**-.192**	-.078	.071	-.013	-.054	.103	**.187**	**-.252**	**-.223**	.052	-.126	.110	**.215**	1.00

Note. Because the correlation was based on pair-wise exclusion of cases with missing data, *N* varies with respect to pairs. *n* for each item ranges from 225 to 229 except for Item 10, which had 210 responses. Correlations in bold face type are significant at the .01 level, and italicized correlations are significant at the .05 level.

To determine the relative relationship between predictors of suspendable school offenses, a total of three regression analyses were conducted that progressively led to a model containing only significant independent variables. Variables in each case were entered using a hierarchical block approach, in which the variables most amenable to intervention were entered first (step 1) to account for as much variance as possible in the dependent variable of engagement in school suspendable offenses. Subsequently (step 2), the demographic variables were entered to account for any remaining variance. The regression results were based on a list-wise exclusion of cases with missing data for one or more of the specified variables.

In the first regression, summarized in Table 5, this exclusion resulted in a total of 194 cases with no missing data. For this case, the variance (R^2) accounted for by the nondemographic variables was .54 (adjusted R^2 = .514; $F(11, 182) = 14.55, p < .001$). When the demographic variables were entered into the equation, the change in variance equaled .026, which was not statistically significant ($F(5, 177) = 2.16, p < .06$). However, because the second block did approach significance, the block of demographic predictors was interpreted along with the first block to produce the following overall result: $F(16, 177) = .55, p < .001$.

Of the seven statistically significant variables, five were significant at the .01 level: observed violence at school, gang membership, school suspension, attitude toward violence, and grade level. In addition, one parental monitoring item (Item 7 on the demographic questionnaire) and drug use were significant at the .05 level.

Table 5

Initial Hierarchical Regression for Variables Predicting Engagement in Suspendable School Offenses

Variable	B	SE B	β
Step 1			
Parental monitoring 6	.045	.035	.068
Parental monitoring 7	.106	.064	.115
Parental monitoring 8	-.060	.051	-.080
Observed family violence	-.026	.026	-.058
Observed school violence	-.088	.022	-.233**
Observed community violence	-.007	.023	-.017
Drug use	-.082	.049	-.112
Gang membership	.403	.132	.181**
School suspension	.171	.044	.248**
Self-esteem	-.024	.075	-.019
Attitude toward violence	-.356	.100	-.239**
Step 2			
Parental monitoring 6	.056	.036	.08
Parental monitoring 7	.126	.064	.137*
Parental monitoring 8	-.048	.051	-.065
Observed family violence	-.025	.026	-.056
Observed school violence	-.102	.023	-.268**
Observed community 12	.005	.023	.014
Drug use	-.102	.049	-.139*
Gang membership	.345	.132	.155**
School suspension	.172	.045	.250**
Self-esteem	.019	.078	.015
Attitudes towards violence	-.316	.101	-.212**
Age	-.113	.058	-.173
Grade level	.233	.077	.282**
Free or reduced lunch	.041	.071	.030
Family structure	-.019	.052	-.019
Grade point average	.058	.042	.077

Note: N = 194
*$p < .05$.
**$p < .01$.

Step 1 of the second regression initially excluded 6 participants with missing data. However, these were later included in the step 2 analysis using a second hierarchical regression model created from the significant variables in the first regression, which increased the number of cases from 194 to 200. This second regression showed parental monitoring Item 7 to be not significant.

A third and final hierarchical regression used only the six variables found significant in the second regression: gang membership, school suspension, attitude toward violence, observed violence Item 11, drug use, and grade level. This latter, the only demographic variable remaining significant past the first two regressions, was added in step 2 of the final regression.

The statistical results for the final model were as follows: $F(6, 194) = 37.06$, $p < .001$, with a multiple R of .73. These findings indicate that 53.4% of the variance in the School Violence Inventory scores was accounted for by six significant predictors: observed violence at school, gang membership, attitude toward violence, school suspension, grade level, and drug use. Table 6, which includes correlations, summarizes these results. In this table, the part correlation value for each dependent variable indicates the variable's unique correlation with the criterion variable, and the variables are ranked in descending order of part correlations to indicate the order of relevance of the predictors. As the table shows, observed school violence was the strongest predictor of suspendable school offenses among the sample.

Table 6

Final Hierarchical Regression for Variables Predicting Engagement in Suspendable School Offenses

Variable	B	SE B	β	Correlations		
				Zero order	Partial	Part
Step 1						
Observed school violence	-.097	.020	-.253**	-.421	-.329	-.242
Gang membership	.506	.128	.228**	.502	.272	.196
Attitude to violence	-.362	.090	-.243**	-.545	-.275	-.199
School suspension	.135	.043	.193**	.528	.220	.157
Drug use	-.112	.043	-.150**	-.420	-.185	-.131
Step 2						
Observed school violence	-.097	.020	-.255**	-.421	-.336	-.243
Gang membership	.465	.127	.210**	.502	.254	.179
Attitude to violence	-.316	.091	-.212**	-.545	-.242	-.170
School suspension	.141	.042	.202**	.528	.234	.164
Grade level	.111	.043	.134*	.317	.181	.126
Drug use	-.102	.042	-.136*	-.420	-.170	-.118

Note: $N = 200$
*$p < .05$.
**$p < .01$.

To further determine the relative strength of the predictor variables, a *z* test was conducted that compared the ratios of differences between the part correlations. Once the part correlation values had been Fisher transformed, the difference ratios between pairs of values and the standard error were evaluated using a standard *z* table. Since larger part correlations were tested to determine whether they were significantly greater than smaller part correlations, the test was one-tailed. The critical *z* score for

significance at the .05 level was 1.645. The *z*-test results showed that observed school

violence accounted for significantly more unique variance in the criterion variable than

either grade level or drug use. No other significant differences were found among the

predictor variables in the degree of variance that they predicted. These results are

summarized in Table 7.

Table 7

z test for Pairwise Comparisons of Part Correlations

Variable	Observed school violence	Gang membership	Attitude toward violence	Times suspended	Grade level
Gang membership	0.943				
Attitude toward violence	1.074	0.131			
Times suspended	1.160	0.217	0.087		
Grade level	**1.707**	0.764	0.633	0.546	
Drug use	**1.821**	0.878	0.747	0.661	0.114

Note: Bold face type indicates that the value is above the critical *z* value of 1.645 and is therefore significant.

Primary Research Question and Hypothesis Evaluation

This research addressed the following primary question: What is the relative

relationship of key predictors of engagement in suspendable school offenses among

middle school girls? Based on the presumption that key predictors of engagement in

suspendable school offenses exist, two hypotheses were formulated, the first related to

the presumption itself and the second, to their relative order. These hypotheses and their corresponding null forms are presented below.

Research hypothesis 1. In a multiple regression, the combined effect of the key predictors will significantly predict engagement in suspendable school offenses ($R > 0$, $p < .05$).

Null hypothesis 1. In a multiple regression, the combined effect of the key predictors will not significantly predict engagement in suspendable school offenses ($R = 0$).

Research hypothesis 2. In a multiple regression, the unique effects (i.e., part correlations) of each predictor variable will not be equal.

Null hypothesis 2. In a multiple regression, the unique effects (i.e., part correlations) of each predictor variable will be equal.

The results of the hierarchical regression showed that the combined effect of six key predictors did significantly predict engagement in suspendable school offenses among the sample, thereby confirming research hypothesis 1. They also revealed that the contributions of the six key predictors on suspendable school violence are unequal, which confirms research hypothesis 2. In confirming the latter, the final regression also answered the research question on the relative relationship between key predictors of engagement in suspendable school offenses among middle school girls. That is, the predictive variables can be ranked from greatest to least contribution to suspendable school violence as follows: observation of school violence, gang membership, attitude

toward violence, school suspension, grade level, and drug use. The first, observation of school violence, was a significantly higher predictor of the criterion variable than grade level or drug use.

Observed Consistencies and Inconsistencies

Several aspects of the findings relate to observed consistencies and inconsistencies among student survey responses. First, the three items on observation of violence on the demographic questionnaire were originally intended to be combined into one composite variable on observation of violence. However, the considerable variation in participant answers signaled that the three items did not constitute a single construct.. For example, to the item on frequency of observed violence among adult family members, over 70% of the students replied either *never* or *only once or twice ever*, which options were also selected by 46.9% of respondents for the item on frequency of observed violence in the community. In contrast, to the item on the frequency of observed violence at school, only 40.5% of participants indicated *never* or *only once or twice ever*, while 51.5% replied either *1–2 times a month* (18.1%), *1–2 times a week* (14.1%), or *daily* (19.4%).

One important aspect of these findings is that the majority of students reported having observed violence in the home very seldom or never. Since home life may have a considerable effect on student attitudes toward violence, this figure is positive. However, the findings also indicate that the participants observed violent behavior at school at an alarming rate. This result, combined with the finding that observation of violence at

school is the main predictor of the type of violent activities that result in suspension, suggests a corollary to the old saying, "Violence begets violence." Specifically, "Observation of violence begets violence," which further highlights the importance of finding effective ways to bring school violence under control.

The replies to the three parental monitoring items on the demographic questionnaire were also originally intended for combination into a composite variable. However, the mean for the replies to the first item on the frequency with which students were allowed to come and go as they pleased (3.224) was considerably different from the means for the other two items on the frequency with which parents knew where and with whom students were away from home (4.592 and 4.447, respectively). Thus, whereas many parents allow the students to sometimes come and go as they pleased, most parents apparently know where the student is always or almost always. Overall, these results suggest that most parents give the students a degree of freedom but closely monitor the student's whereabouts and companions.

The second strongest predictor of engagement in suspendable school behavior was gang involvement, reported by 26 students (10.5%). This percentage appears somewhat inconsistent with the student responses to the Attitudes Towards Violence Scale item, "I can see myself joining a gang," with which only 13 (5.7%) students agreed or strongly agreed. This inconsistency between the reported history of gang involvement and the potential for future gang involvement suggests that some students may have

belonged to a gang for a time but then left it and no longer be interested in gang

membership.

The third strongest predictor of the criterion variable was student attitudes toward

violence. Indeed, the scale measuring this variable revealed interestingly inconsistent

attitudes toward violence on the part of middle school students. For example, only 17

students (7.4%) agreed or strongly agreed that "It's okay to use violence to get what you

want," while only 35 (15.3%) agreed or strongly agreed that "People who use violence

get respect." Yet 103 (45.0%) agreed or strongly agreed that "It's okay to beat up a

person for badmouthing me or my family," 162 (70.7%) agreed or strongly agreed that

"If a person hits you, it's okay to hit them back," and 184 (81.1%) agreed or strongly

agreed that "It's okay to do whatever it takes to protect yourself."

This variation suggests that the students have a dual attitude toward violence.

Specifically, students mostly disagreed with the aggressive use of violence, but agreed to

the legitimacy of violence for self-defense. Interestingly, however, only 13 students

(5.7%) agreed or strongly agreed that "I can see myself joining a gang" even though

joining a gang is sometimes viewed as a means of self-protection.

<div align="center">Summary</div>

Following a brief introduction, this chapter has described the sample, explained

the development of the composite scales, reported reliabilities, and outlined the results of

the hierarchical regression analysis. These latter clearly show the relative contribution of

several predictor variables to variance in the dependent variable. These findings not only

enabled evaluation of the study hypotheses, they also provided an answer to the primary research question by (a) showing that the combined effect of several key predictors significantly predicts engagements in suspendable school offenses, and (b) explaining the relative contribution of the predictor variables in predicting engagement in suspendable school offenses. Finally, the discussion identified several consistencies and inconsistencies in student responses to the survey.

CHAPTER 5:

SUMMARY, INTERPRETATIONS, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

This chapter, divided into four main sections, summarizes the study, discusses the conclusions and implications, and presents several recommendations for future research. After reviewing the study purpose and method, the first section briefly summarizes the findings. The second section then interprets the findings and relates them to the study's conceptual framework. Subsequently, the third section discusses the implications of the findings for social change in schools, communities, and families, and the fourth concludes with recommendations for future action and further study.

Overview of the Study

Research seeking to identify antecedents of aggressive and violent behavior among middle school children has been growing (Hall et al., 1998; McConville & Cornell, 2003). Research focusing on girls particularly has related such behavior to both personal characteristics and social context (Mullis et al., 2004) and has found self-esteem, family structure, and parental monitoring to be potential predictors. However, previous research has not attempted to determine the relative importance of such predictors among middle school girls, a knowledge gap that this study aimed to reduce.

To fulfill this objective, a sample of 227 middle school female students from a single school completed four survey forms: the School Violence Inventory, the Brief Rosenberg Self-Esteem Scale, the Attitudes Towards Violence Scale, and a demographic

questionnaire. The dependent variable for the study was violent school behavior as measured by suspendable school offenses reported on the School Violence Inventory. The resultant data were analyzed through hierarchical multiple regressions in which the first block contained variables amenable to intervention—parental monitoring, observed violence, illicit drug use, gang membership, school suspension, self-esteem, and attitude toward violence—and the second the demographic variables of age, grade, eligibility for free or reduced lunch, race/ethnicity, grades, and family structure. These hierarchical regressions revealed significant, albeit unequal, correlations between several independent variables and suspendable school offenses. Ranked from most to least significant, these variables are as follows: observation of school violence, gang membership, attitude toward violence, school suspension, grade level, and drug use.

<div align="center">Interpretation of Findings</div>

This study began with the following research question: What is the relative relationship of key predictors of engagement in suspendable school offenses among middle school girls? Because this question presumed that the set of independent variables would predict engagement in suspendable school offenses, two related null hypotheses were formulated:

Null hypothesis 1. In a multiple regression, the combined effect of key predictors will not significantly predict engagement in suspendable school offenses,

Null hypothesis 2. In a multiple regression, the unique effects of each predictor variable will be equal.

Based on the finding that several dependent variables predicted engagement in suspendable school offenses, albeit unequally, both null hypotheses were rejected. Thus, in answer to the research question, the principal conclusion of this study is that the key predictors of middle school girls' engagement in suspendable school offenses can be relatively ranked from highest to lowest as follows: observation of school violence, gang membership, attitude toward violence, school suspension, grade level, and drug use. Moreover, observation of school violence is a significantly higher predictor of suspendable school offenses than grade level or drug use.

In interpreting these findings, several considerations are important. First, this current study is apparently the first investigation of violent behavior among middle school girls that ranked predictors in order of importance using a hierarchical regression method that first inputs variables susceptible to intervention and then adds demographic variables in a later step. Of special interest to the study was whether one or more of the first set of variables were predictors of school violence, because if so, school administrators, teachers, and others might be able to lessen the effects of these variables on school violence. In fact, several predictors amenable to intervention were identified whose implications for social change are discussed in the next section.

The research findings can perhaps best be interpreted in light of the study's conceptual framework of social learning theory. Especially pertinent is the Anderson-Bushman (2002) social learning theory model of aggression, which considers all dimensions that may influence aggressive behavior, including both personal

characteristics (e.g., individual attitude toward violence) and situational characteristics (e.g., the surrounding environment). Although this study did not focus on all possible dimensions and variables that might affect aggressive and violent behavior, it did include both personal variables, like self-esteem and attitude toward violence, and situational variables, such as observation of violence and family structure.

Most social learning theories hold that aggressive behavior is learned, for example, through the positive reinforcement of engagement in such behavior (Tedeschi & Felson, 1994). In addition, script theory, one version of social learning theory, suggests that learning can also take place through observing others behave aggressively or violently (Huesmann, 1988). According to this perspective, children can learn behaviors through modeling. That is, during the socialization process, children develop expectancies about the results of their behaviors, partly by assigning values to anticipated outcomes as a result of observing their models. For example, as in Schiff and McKay's (2003) finding of an association between family violence and aggressive behavior in African American girls, children may learn aggressive or violent behavior by modeling parents who act in such ways. However, these authors found that observation of violence in the home was not associated with suspendable school offenses, possibly because there was little violence in the homes of the students surveyed. Specifically, the mean observation of violence on their demographic questionnaire was 4.80, which is closest to *only once or twice ever* in the survey reported here, in which183 students reported observing violence at home *never*, *once or twice ever*, or *once or twice a year*.

As indicated by Rosignon-Carmouche (2002), aggressive habits can also be developed as a result of children witnessing negative or aggressive behaviors in their school environment. Thus, children may learn aggressive or violent behavior by modeling the behavior of their peers. In the current study, students reported that observation of violence at school was more frequent than observation of violence at home, with the mean being 3.51. Moreover, observation of school violence was the most powerful predictor of engagement in suspendable school offenses, which suggests that female middle schools students may be learning to behave violently by observing others engaged in such behavior at school.

Observation of school violence may have this effect through what Akers (1985) termed differential association, a process in which individuals align themselves with groups that are the major sources of their reinforcement. For the middle school girls surveyed here, this group probably includes peers whose behavior the girls are more likely to model than members of other groups. Thus, girls observing violence at school that involves their peers may tend to model their own behavior on such observations. In addition, based on Aspy et al.'s (2004) finding that peer models are more important to female middle school and high-school students reporting involvement in fighting than to male students, such modeling may be stronger in girls than in boys.

Because this present research did not ask students about the circumstances in which they observed school violence (nor, for that matter, the extent of their own involvement in the observed violence), it is unclear how often participants observed

violence perpetrated by friends versus that perpetrated by other acquaintances or strangers. However, it seems intuitively likely that the former would have a stronger effect on student behavior than the latter

The second strongest predictor that this study found for engagement in suspendable school behavior is gang involvement, with 26 students (10.5%) stating that they had belonged to a gang. This number can be viewed as unacceptably high, especially for a small-city school such as this and given the grade levels of the students. Nonetheless, this finding conforms to Mullis, Cornille, Mullis, and Huber's (2004) conclusion that community context, including gang influence, may support violent and aggressive behavior in adolescents.

Like observation of violence, the role of gang involvement in predicting violent behavior at school can be understood in terms of social learning theories. That is, a student joining a gang whose members engage in violent acts may tend to model her own behavior on her gang peers. Thus, she may learn violent scripts by observing her fellow gang members behave violently or listening to their comments in favor of perpetrating violence. She may then retrieve these scripts from memory and use them as a behavior guide in particular situations, such as disagreements or confrontations with individuals outside the gang.

The third strongest predictor of suspendable school offenses identified in this study was a favorable attitude toward violence, a result that agrees with McConville and Cornell's (2003) finding that middle school students better able to rationalize aggressive

behavior are also more likely to report having engaged in physically aggressive behaviors. This observation was most notable in student responses to the Attitudes Towards Violence Scale, on which respondents mostly disagreed with using violence to take something from someone or starting rumors. For example, whereas only 6 of 229 students (2.6%) strongly agreed that "It's okay to use violence to get what you want," a much higher percentage found violence acceptable as a means to protect oneself—with 100 of 227 students (44.1%) strongly agreeing—or even family honor. Hadley (2004) claimed that middle school aged children are capable of making complex distinctions between types of aggression in relation to their peers' social norms and that perceptions may differ between males and females about what is normal behavior in their social environment. In this current study, the strong divergence in the replies to items on two types of violence—that used for aggression and that used for defense—suggests that middle school female respondents are making distinctions not between types of aggression but between aggressive versus defensive violence.

This finding is particularly interesting in light of Akers' (1985) claim that individual definitions of what constitutes deviant behavior partly explain the degree to which a person engages in aggressive behavior. In other words, individuals that view aggressive or violent behavior as acceptable are more likely to engage in such behavior. This observation may possibly explain the correlation found here between attitude toward violence and violent school behavior. That is, the middle school girls surveyed may believe that violent school behavior is acceptable or even justified in certain cases.

The results also raise the question of how students determine whether a behavior is actually aggressive or defensive. For example, an act that is judged aggressive and unjustified by an observer or its target might be thought defensive and justified by a perpetrator who feels somehow wronged by the target. The possibility of such a situation is suggested by Bushman and Baumeister (1998), who found that the most aggressive individuals rationalized their aggressive behavior as retaliation against insult. Other research has also found that aggressors may rationalize their aggressive and violent behavior as being provoked or in retaliation (McConville & Cornell, 2003; Tapper & Boulton, 2000). Thus, the distinction between aggressive and defensive violence made by study participants in their survey replies may be vague in many real-life cases.

Several variables that the study results did not associate with violent school behavior are of special interest. First, in terms of socioeconomic status, measured by asking whether students were eligible for free or reduced lunch, 126 out of 226 students (55.8%) answered in the affirmative, indicating that they came from families with lower socioeconomic status than others in the sample. Not only did Blum et al. (2000) show lower socioeconomic status to be associated with greater risk behaviors among adolescents, but Ellickson and McGuigan (2000) found that living in poverty was a predictor of violent behavior among high school seniors. However, this current study, in which the risk behavior is school violence, found no such relationship among the middle school girls surveyed.

Family structure was another study variable that other researchers have found to be associated with risk behaviors. For example, among 1,800 Canadian children, Kierkus and Baer (2003) found a number of delinquent behaviors associated with family structure, with children from non-intact family structures more likely to have engaged in the behaviors. In addition, Blum et al. (2000) found that adolescents of all racial and ethnic categories from single parent families were more likely to engage in a number of risk behaviors than those from intact families. Moreover, Ram and Hou (2005) found that the aggression levels of girls who had gone through family breakups were more intense than those of girls who had not. They also concluded that a stepfamily environment is more harmful to girls than boys.

In contrast, the present research found no relationship between family structure and school violence. Only 83 out of 226 girls sampled (36.7%) lived with both biological parents, while 127 (56.2%) lived with one biological parent (the percentage living with a stepparent was undetermined). This lack of association between family structure and school violence may be a result of good communication even in families missing one or both biological parents. For instance, Aspey et al. (2004) found that middle school and high-school students who reported good family communication were less likely to have fought during the previous 12 months. In fact, the researchers found that students in one-parent households were less likely to have fought in the previous 12 months, which strongly suggests good communication in these households, which may also have been true for the students in the present study.

Self-esteem, low levels of which some studies have associated with suspendable school offenses, is yet another noteworthy research variable given that student levels of self-esteem were fairly positive overall, with 200 students (87.7%) agreeing or strongly agreeing that "On the whole, I am satisfied with myself." Thus, whereas Ellickson and McGuigan (2000) found seventh-grade girls with low self-esteem more likely to engage in violent behavior as high-school seniors, this study found no similar effect among middle school girls. Nonetheless, the results are not truly comparable because, unlike Ellickson and McGuigan, the present study did not measure the effect of self-esteem over a multiyear period.

This present study also found no evidence that suspendable school offenses are associated with *high* self-esteem, possibly because the different ways in which high and low self-esteem relate to violent behavior cancel each other out. Whatever the reason, the findings do not support Baumeister et al.'s (2000) theory that aggression is used by individuals to defend their highly favorable perceptions of themselves. Indeed, the seemingly contradictory findings of various studies in this area indicate the need for further study on how self-esteem—high, low, or both—may be related to aggressive and violent behavior among adolescent girls.

Finally, in interpreting the findings of this study, it is important to note the sampling limitations. Specifically, the study surveyed middle school girls in a single middle school in a relatively small community in the southeastern United States. Obviously, middle school girls in other areas of the country—particularly those with

denser populations—may have different characteristics. Thus, extrapolation of the

findings beyond the sample surveyed should be done with care. However, the study

findings do provide both a first look at the relative importance of several predictors of

school violence among middle school girls and insights for future studies seeking to

determine whether the same predictor rankings hold for other samples of middle school

girls.

<p style="text-align:center">Implications of the Findings for Social Change</p>

A number of implications for social change follow from the study's findings both

for schools and for communities and families.

Implications for Schools

In attempting to determine the relative strength of predictors of school violence

among middle school girls, this research found that engagement in suspendable school

offenses increases with the combined effect of six variables, ranked in order of

magnitude: observation of school violence, gang membership, attitude toward violence,

prior school suspension, grade level, and drug use. Not only was grade level the sole

demographic variable, but nondemographic variables were of special interest to the study

because of their susceptibility to intervention. The finding that five predictors were

nondemographic suggests that schools could reduce middle school girls' engagement in

violent school behavior by developing strategies to target these variables.

To help develop such strategies, schools might consider forming a school violence

reduction planning group consisting of an administrator, three teachers representing the

three grade levels, and one or two parents. This planning group could schedule information sharing sessions with the school district to help the district implement effective policies that target violence at the school by focusing on the variables that this study has linked to school violence. Such a school planning group should obviously understand as much as possible about the types of violent acts occurring at the school. To help provide the board with this understanding, detailed records of violent incidents at the school, including the nature, location, and time of the incident, as well as who was involved, could be kept by school authorities and furnished to the planning group.

The school could use this information to reduce the effect of the strongest predictor of school violence in this study, observation of school violence. By learning which school locations and times are more likely to be occasions for violent incidents, monitoring at these times and locations, whether by teachers or adult volunteers, could be increased. Such monitoring would have the double advantage of reducing opportunities for both engaging in and observing violent behavior; for example, when groups of students gather to observe a physical fight.

The school violence reduction planning group could also help develop strategies to target the second strongest predictor of suspendable school offenses, student gang involvement. For example, the district or school might design and implement appropriate after-school or extracurricular activities as alternatives to gang activity. Moreover, identifying students who are gang members and interviewing them could provide insights into what preventive measures might reduce gang involvement.

The third highest predictor of suspendable school offenses, attitude toward violence, manifested in two forms among the girls surveyed: strong disapproval of aggressive violence and various degrees of approval for defensive violence. These findings suggest that it would be valuable for teachers to engage their students in classroom discussions on violence, including the different ways people justify violence as a means of retribution and how such justification can perpetuate violent behavior. Through such discussions, students could develop a more sophisticated and thoughtful view of the nature of violence, one that might reduce any tendency to engage in violent behavior. Teachers could also help students model nonviolent personal interactions in the discussions and provide opportunities for speakers who have personally suffered from violence to reduce students' favorable attitudes toward violence.

In addition, it is important for teachers, administrators, and school psychologists to be watchful for students who may be especially emotionally vulnerable to bullying, hazing, or teasing, and who may feel that a violent reaction to such treatment is acceptable. By identifying these students, school psychologists could then work with them to defuse anger and the desire for retribution.

Schools and school districts should also consider the association found between school violence and prior suspension, which suggests that suspending students is not a deterrent to commission of offenses. In other words, except in extreme cases, schools using less punitive and more educational approaches to deal with offenses might reduce future occurrences of such behavior.

The final association, that between suspendable school offenses and drug use, suggests that the implementation of educational programs by schools to reduce drug use could contribute to reducing school violence. In addition, identifying and interviewing students who use illicit drugs could provide schools with information about how to reduce the effects of this variable.

Implications for Communities

This study found gang involvement to be the second highest predictor of school violence, one that is not simply a school problem but also a community problem. The reasons for wanting to belong to a gang—for example, boredom and yearning for a sense of belonging—underscore the importance of communities' providing a range of after-school, evening, weekend, and vacation activities for adolescent girls as an alternative to possible gang involvement. Clubs and sporting activities in which girls can gain a sense of belonging and achievement may be especially valuable in keeping them out of gangs.

Providing such opportunities may also reduce the illicit drug use associated with school violence. Thus, community drug education programs targeting adolescent girls could be an important adjunct to school programs. For example, adult female anti-drug motivational speakers who were involved in drugs at an early age might be particularly interesting and pertinent to middle school girls and especially able to convince the girls to stay away from drugs.

Implications for Families

This study found no specific family-related variables (i.e., family structure or parental monitoring) to be associated with school violence. However, families can use knowledge of the variables associated with school violence to prevent their daughters from becoming involved in violence. For example, by understanding that involvement in gangs and illicit drug use are predictors of school violence, parents can be watchful of their daughters' social involvements both in and out of school and ensure they have adequate after-school activities to keep them positively engaged. Similarly, by understanding that a positive attitude toward violence is a predictor of violent behavior, parents can discuss the nature of violence with their children and instill in them a negative attitude toward violent behavior. Since children may become more tolerant of violence as they grow older (Tapper & Boulton, 2000), it may be important to hold these discussions early on. Such discussions may also improve the good communication between parents and children found to result in less violent behavior among adolescents (Aspy et al., 2004).

Parents should also understand the power of modeling. That is, although middle school girls may model much of their behavior on their peers, their parents' behavior is another potentially powerful influence. For the most part, the parents of the students surveyed are to be commended in that the majority of the girls reported observing very little violent behavior in the home. In those families in which violent behavior does occur

more often, it is important for the adults to understand that the children in the home may be learning to behave in similar ways through modeling.

<div align="center">Recommendations</div>

Recommendations for Action

The study findings suggest several recommendations for action. First, a summary of the study results should be disseminated among and discussed by administrators and teachers not only in the middle school surveyed but also in middle schools in surrounding areas. Such dissemination could be carried out by area school districts in association with the researcher. In addition, to discuss and plan strategies for reducing the incidence of violent behavior at school, middle schools should initiate school violence reduction planning groups, possibly consisting of a school administrator, a teacher for each middle school grade, and one or two parents.

To reduce observation of violence in middle schools, the strongest predictor found for school violence, schools should take a scientific approach that begins with detailed record keeping of violent incidents at school. For each incident, the record should include the nature and location of the incident, who was involved, and the time of day. The accumulated data would enable identification of potential locations and times at which violent incidents tend to occur. Increased monitoring at these locations during the relevant times might then reduce the number—and thus student observation—of such incidents.

Schools and school districts should also increase the number of after-school and extracurricular activities that can serve as healthy alternatives to gang activity and use of illegal drugs, two variables also found to be predictors of school violence. They might also provide increased opportunities at middle schools for positive, dynamic speakers who have personally suffered from violence or who are former gang members or drug users. In addition, given the study's finding of an association between school violence and suspension, schools should seek less punitive and more educational ways to deal with school offenses.

Middle schools in particular should take a proactive approach to creating a dialogue with students about violence. For example, teachers could hold classroom discussions about violence so that students develop a better understanding of its nature and motivations, including the ways in which people attempt to justify it. Such discussion might also include helping students learn nonviolent ways of dealing with incidents like perceived insults and teasing.

At the same time, communities should increase their efforts to reduce motivation for gang involvement or drug use by providing after-school and vacation activities for adolescent girls, especially those that instill a sense of belonging and achievement. They should also work in conjunction with schools to develop anti-gang, anti-drug, and anti-violence programs for girls, including opportunities for positive motivational speakers to address both the girls and their families.

Similarly, parents should reduce the likelihood of their young daughters'

developing positive attitudes toward violence by discussing the topic with them. Such

dialogue, as part of a continuing effort to foster good communication, could open up

possibilities for discussions on how to deal with incidents that lead to anger and a desire

for retribution. Parents should also be highly cognizant of the power of modeling and the

importance of maintaining a nonviolent home.

Recommendations for Further Research

The study findings also imply several avenues for future research. First, the study

should be replicated in other regions with varying demographics to determine whether the

same predictors of school violence, ranked in the same order, are true for girls in other

middle schools. In addition, the study should be similarly replicated with middle school

boys to determine whether the same predictors and rankings found for girls also apply to

boys.

The distinction between aggressive and defensive violence identified in the

middle school girls' attitudes toward violence should also be further studied. A first step

in so doing might be to develop an attitude instrument in which all items pertain to one or

the other type of violence. Corresponding research questions might include whether there

are dual attitudes toward violence among other middle school girls, among middle school

boys, and among other adolescents. It would also be useful to learn the extent to which

students equate defensive violence with justifiable violence and aggressive violence with

unjustifiable violence.

Studies are also needed that focus specifically on observation of school violence, the variable found to be the strongest predictor of school violence. Such research could seek to determine the kinds and incidents of violence observed, whether the observed incidents did or did not involve friends, and the students' attitudes toward what they saw. Results of such research could help provide schools with further information about how students react to various violent incidents they observe, which could aid the development of strategies to counteract the effects of this important variable.

Conclusions

This study contributes to the literature by being the first to focus on determining the relative strength of predictors of school violence among middle school girls. Its findings indicate that observation of violence is the strongest predictor of school violence among the girls surveyed. Other predictors, ranked according to strength, are gang membership, attitude toward violence, school suspension, grade level, and illicit drug use. Of these, the most important to schools, communities, and families are the variables amenable to intervention.

Based on an understanding of these intervenable variables, interested parties could develop strategies to reduce gang membership, the second strongest predictor. They might also talk to students about violence and their attitudes toward and beliefs about it to facilitate student understanding that violence is not always easily classifiable

into aggressive and defensive violence and that violent retribution often simply perpetuates violence.

The finding that observation of school violence is the strongest predictor of school violence supports social learning theory. Mostly particularly, in a "Violence begets violence" scenario, the female middle school participants appeared to be learning violence by modeling the violent behavior of peers. To counteract this trend, schools must find ways to reduce violent incidents and shield students from unintended lessons about engaging in violent behavior.

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APPENDIX A:

PARENTAL CONSENT FORM

Middle School Girl's Engagement in Suspendable School Offenses:
Sorting Out Key Predictors

You are invited to participate in a research study of Middle School Girl's Engagement in Suspendable School Offences: Sorting Out Key Predictors. Your daughter has been chosen as a candidate for this research because she is a female middle school student at Red Bank Middle School. Will you please grant permission for your daughter to participate in the research? Read this form and feel free to ask any questions you may have before acting on this invitation to be in the study.

This study is being conducted by Barbara Cavanaugh, a doctoral candidate at Walden University.

Background Information:
The purpose of this study is to determine ways in which your daughter is threatened by violence at school by isolating the key predictors of suspendable offences: attitude toward violence, self-esteem, parental monitoring, observation of violence, and various sociodemographic variables.

Procedures:
If you agree to let your daughter be in this study, she will be asked to participate in a brief survey consisting of four parts. Part One comprises terms designed to collect sociodemographic data. Part Two comprises a 10-item measure of engagement in suspend able offences at school, and an item that asks about prior suspension. Part Three comprises10 statements that assess students; self-reported measure of self-esteem. Part Four comprises 19 statements that measure a student's attitude toward violence. The expected duration of the procedure is approximately 30 minutes.

Voluntary Nature of the Study:
Your daughter's participation in this study is strictly voluntary. Your decision whether or not to let her participate will not affect any current or future relations with Red Bank Middle School. If you initially decide to participate, you are still free to withdraw at any time later without affecting those relationships.

Risks and Benefits of Being in the Study:
There are no risks associated with participating in this study and there are no short- or long-term benefits to participating in this study.

In the event your daughter experiences stress or anxiety during her participation in the study she may terminate her participation at any time or refuse to answer any questions she considers invasive or stressful.

Compensation:
There is no compensation for participation in this study.

Confidentiality:
The records of this study will be kept private. In any report of this study that might be published, the researcher will not include any information that will make it possible to identify your child. Research records will be kept in a locked file, and only the researcher will have access to the records.

Contacts and Questions:
The researcher conducting this study is Barbara Cavanaugh. The researcher's faculty advisor is Dr Matthew Geyer. You may ask any questions you have now. If you have questions later, please do not hesitate to call me at 423–321–2995 or my research project committee chair Dr Matthew Geyer, Walden University at 1–800–925–3368. The Research Participant Advocate at Walden University is Leilani Endicott; you may contact her at 1–800–925–3368, extension 1210, if you have questions about your participation in this study.

You will receive a copy of this form from the researcher.

Statement of Consent:

☐ I have read the above information. I have asked questions and received answers. I consent to participate in the study.

Printed Name of
Participant
Participant Signature _____

Signature of Investigator

APPENDIX B:

STUDENT ASSENT FORM

Middle School Girl's Engagement in Suspendable School Offenses:
Sorting Out Key Predictors

You are invited to participate in a research study of Middle School Girl's Engagement in Suspendable School Offences: Sorting out Key Predictors. You are a candidate for this study because you are a Red Bank Middle School girl. Will you please participate in the research? Read this form and feel free to ask any questions you may have before acting on this invitation to be in the study.

This study is being conducted by Barbara Cavanaugh, a doctoral candidate at Walden University.

Background Information:
The purpose of this study is to determine ways in which you are threatened by violence at school by isolating the key predictors; suspend able offence, attitude toward violence, self esteem, parental monitoring, observation of violence and various socio demographic variables.

Procedures:
If you agree to be in this study, you will be asked to participate in a brief survey consisting of four parts. Part One comprises items designed to collect sociodemographic data. Part Two comprises a 10-item measure of engagement in suspendable offences at school, and an item that asks about prior suspension. Part Three comprises10 statements that assess students; self reported measure of self esteem. Part Four comprises 19 statements that measure a student's attitude toward violence. The expected duration of the procedure is 30 minutes.

Voluntary Nature of the Study:
Your participation in this study is strictly voluntary. Your decision whether or not to participate will not affect your current or future relations with Red Bank Middle School. If you initially decide to participate, you are still free to withdraw at any time later without affecting those relationships.

Risks and Benefits of Being in the Study:
There are no risks associated with participating in this study and there are no short or long-term benefits to participating in this study.

In the event you experience stress or anxiety during your participation in the study you may terminate your participation at any time. You may refuse to answer any questions you consider invasive or stressful.

Compensation:
There is no compensation for participating in this study.

Confidentiality:
The records of this study will be kept private. In any report of this study that might be published, the researcher will not include any information that will make it possible to identify you. Research records will be kept in a locked file, and only the researcher will have access to the records.

Contacts and Questions:
The researcher conducting this study is Barbara Cavanaugh. The researcher's faculty advisor is Dr Matthew Geyer. You may ask any questions you have now. If you have questions later, please do not hesitate to call me at 423–321–2995 or my research project committee chair Dr Matthew Geyer, Walden University at 1–800–925–3368. The Research Participant Advocate at Walden University is Leilani Endicott; you may contact her at 1–800–925–3368, extension 1210, if you have questions about your participation in this study.

You will receive a copy of this form from the researcher.

Statement of Consent:

☐ I have read the above information. I have asked questions and received answers. I consent to participate in the study.

Printed Name of
Participant
Participant Signature   _____

Signature of Investigator   _____

APPENDIX C:

STUDENT SURVEY

PART ONE: DEMOGRAPHIC QUESTIONAIRE
Directions: Complete the following items by <u>circling</u> the most appropriate response for each item.

1. Race (Please circle ONLY ONE)
    1. African American/Black   3. American Indian   5. Other
    2. White/Non-Hispanic   4. Hispanic

2. Age (Please round up or down to closest age)
    10 years   12 years   14 years
    11 years   13 years   15 years or More

3. Grade: 6th   7th   8th

4. Do you get free or reduced lunch?   0. No   1. Yes

5. With whom do you live? (Please circle ONLY ONE)
    1. With both parents (Biological Mother AND Biological Father)
    2. With one parent (Biological Mother OR Biological Father)
    3. Grandparent
    4. Other relatives
    5. Non relative

6. How often do(es) your parent(s)/guardian let you come and go as you please?

1	2	3	4	5
Never	Almost Never	Sometimes	Almost Always	Always

7. When you are away from home, how often do(es) your parent(s)/guardian know where you are?

1	2	3	4	5
Never	Almost Never	Sometimes	Almost Always	Always

8. When you are away from home, how often do(es) your parent(s)/guardian know who you are with?

1	2	3	4	5
Never	Almost Never	Sometimes	Almost Always	Always

9. What grades do you usually make?
    1. Mostly A's
    2. Mostly B's
    3. Mostly C's
    4. Mostly D's
    5. Mostly F's

10. How often have you observed adult family members being violent?

1	2	3	4	5	6
Daily	1-2 Times a Week	1-2 Times a Month	1-2 Times a Year	Only Once or Twice Ever	Never

11. How often have you observed acts of violence at school?

1	2	3	4	5	6
Daily	1-2 Times a Week	1-2 Times a Month	1-2 Times a Year	Only Once or Twice Ever	Never

12. How often have you observed acts of violence in the community?

1	2	3	4	5	6
Daily	1-2 Times a Week	1-2 Times a Month	1-2 Times a Year	Only Once or Twice Ever	Never

13. How often do you use alcohol, marijuana, or other drugs?

1	2	3	4	5	6
Daily	1-2 Times a Week	1-2 Times a Month	1-2 Times a Year	Only Once or Twice Ever	Never

14. Have you ever been a member of a gang?   0. No   1. Yes

PART TWO: SCHOOL VIOLENCE INVENTORY

Directions: Circle the number that best describes how often you have engaged in each of the following while on school property in the past year. Please be honest. No one but the researcher will see your response.

	Not At All	1–2 Times a Year	1–2 Times a Month	1–2 Times a Week	Daily
1. Abusive language (spoken, written, or gestured)	1	2	3	4	5
2. Personal contact such as pushing or shoving	1	2	3	4	5
3. Harassing or threatening behaviors	1	2	3	4	5
4. Vulgar or profane language, acts, or gestures	1	2	3	4	5
5. Fighting (minor—little or no injury)	1	2	3	4	5
6. Fighting (three or more students involved)	1	2	3	4	5
7. Possession of any item that has the shape, form, or appearance of or intended use of a weapon	1	2	3	4	5
8. Participating in or causing a disturbance at school or school-related activities (such as riot, group or gang fights, fights, or similar disturbances)	1	2	3	4	5
9. Possession of use of a deadly weapon	1	2	3	4	5
10. Sexual assault or battery	1	2	3	4	5

11. How many times have you been suspended for any of the above items? _____

PART THREE: BRIEF ROSENBERG SELF-ESTEEM SCALE
Directions: Circle the appropriate number for each statement depending on whether you strongly agree, agree, disagree, or strongly disagree with it.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. On the whole, I am satisfied with myself.	1	2	3	4
2. At times I think I am no good at all.	1	2	3	4
3. I feel that I have a number of good qualities.	1	2	3	4
4. I am able to do things as well as most other people.	1	2	3	4
5. I feel I do not have much to be proud of.	1	2	3	4
6. I certainly feel useless at times.	1	2	3	4
7. I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4
8. I wish I could have more respect for myself.	1	2	3	4
9. All in all, I am inclined to feel that I am a failure.	1	2	3	4
10. I take a positive attitude toward myself.	1	2	3	4

The Rosenberg SES may be used without explicit permission.
The author's family, however, would like to be kept informed of its use.

PART FOUR: ADAPTED ATTITUDES TOWARD VIOLENCE SCALE
Directions: Circle the appropriate number for each statement depending on whether you strongly agree, agree, disagree, or strongly disagree with it.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. I can see myself committing a violent crime in 5 years.	1	2	3	4
2. I can see myself joining a gang.	1	2	3	4
3. It's okay to use violence to get what you want.	1	2	3	4
4. I try to stay away from places where violence is likely.	1	2	3	4
5. People who use violence get respect.	1	2	3	4
6. Lots of people are out to get me.	1	2	3	4
7. Carrying a gun or knife would help me feel safer.	1	2	3	4
8. If a person hits you, you should hit them back.	1	2	3	4
9. It's okay to beat up a person for badmouthing me or my family.	1	2	3	4
10. It's okay to carry a gun or knife if you live in a rough neighborhood.	1	2	3	4
11. It's okay to do whatever it takes to protect yourself.	1	2	3	4
12. It's good to have a gun.	1	2	3	4
13. Parents should tell their children to use violence if necessary.	1	2	3	4

14. If someone tries to start a fight with you, should walk away.	1	2	3	4
15. Some day I will be a victim of violence.	1	2	3	4
16. I'm afraid of getting hurt by violence.	1	2	3	4
17. It's too dangerous for kids my age to carry a gun.	1	2	3	4
18. It's okay to start rumors about someone.	1	2	3	4
19. It's okay to tease others.	1	2	3	4

APPENDIX D:

PERMISSION TO USE THE SCHOOL VIOLENCE INVENTORY

From: **Brian Anderson** <BAnderso@mc.edu>
Date: Oct 3, 2006 11:45 AM
Subject: Re: PERMISSION
To: Barbara Cavanaugh <barbara.cavanaugh@gmail.com>

Hello again Barbara. I apologize for the delay in responding to your request. I applaud you for your diligence and hard work in expanding the literature on a topic that has become one of our country's most notable social problems.

In saying that, please accept this email as my permission for you to utilize the School Violence Inventory in your research. If I can be of any further assistance to you, please do not hesitate to contact me and when completed, I would like to have a copy of your final project.

Good luck again and please be in touch.

Brian E. Anderson, Ph.D.
Social Work Program Director
Mississippi College

APPENDIX E:

APPROVAL FROM HAMILTON COUNTY DEPARTMENT OF EDUCATION

HAMILTON COUNTY DEPARTMENT OF EDUCATION
6703 Bonny Oaks Drive, Building 200-1
Chattanooga, Tennessee 37421
423.209.8600

Jim Scales, Ph.D.
Superintendent

September 6, 2006

Ms. Barbara Cavanaugh

Dear Ms. Cavanaugh:

Based on my review of your research proposal, I give permission for you to conduct the study entitled "Middle School Girl's Engagement in Suspendable School Offenses: Sorting out Key Predictors" within a middle school in Hamilton County. As part of this study, I authorize you to invite members of my organization, whose names and contact information I will provide, to participate in the study as interview subjects. Their participation will be voluntary and at their discretion. We reserve the right to withdraw from the study at any time if our circumstances change.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,

Jim Scales, Ph.D.
Superintendent

JS/BC:jq

APPENDIX F:

WALDEN UNIVERSITY INSTITUTION REVIEWBOARD APPROVAL FOR

STUDY

Dear Ms. Cavanaugh:

This email is to notify you that the Institutional Review Board (IRB) has approved your application for the study entitled, "Middle school Girls Engagement in Suspendable School Offenses: Sorting Out Key Predictors"

Your approval # is 12–04–06–0101625. You will need to reference this number in the appendix of your dissertation and in any future funding or publication submissions.

Your IRB approval expires on December 4, 2007. One month before this expiration date, you will be sent a Continuing Review Form, which must be submitted if you wish to collect data beyond the approval expiration date.

Your IRB approval is contingent upon your adherence to the exact procedures described in your original application. If you need to make any changes to your research staff or procedures, you must obtain IRB approval by submitting the IRB Request for Change in Procedures Form. You will receive an IRB approval status update within 1 week of submitting the change request form and are not permitted to implement changes prior to receiving approval. Please note that Walden University does not accept responsibility or liability for research activities conducted without the IRB's approval, and the University will not accept or grant credit for student work that fails to comply with the policies and procedures related to ethical standards in research.

When you submitted your IRB application, you a made commitment to communicate both discrete adverse events and general problems to the IRB within 1 week of their occurrence/realization. Failure to do so may result in invalidation of data, loss of academic credit, and/or loss of legal protections otherwise available to the researcher.

Both the Adverse Event Reporting form and Request for Change in Procedures form can be obtained at the IRB section of the Walden web site or by emailing irb@waldenu.edu: http://www.waldenu.edu/c/Students/CurrentStudents_4274.htm

Researchers are expected to keep detailed records of their research activities (i.e., participant log sheets, completed consent forms, etc.) for the same period of time they retain the original data. If, in the future, you require copies of the originally submitted

IRB materials, you may request them from Walden Research Center.

Please note that this letter indicates that the IRB has approved your research. You may not begin the research phase of your dissertation, however, until you have received the Notification of Approval to Conduct Research (which indicates that your committee and Program Chair have also approved your research proposal). Once you have received this notification by email, you may begin your data collection.

Please let me know if you have any questions.

Thank you,
Jeff Ford
Research Coordinator
Walden University

12/4/06

Ms. Cavanaugh:

This email is to serve as your notification that Walden University has approved your dissertation proposal and your application to the Institutional Review Board. As such, you are approved by Walden University to conduct research.

Please contact the Research Office at research@waldenu.edu if you have any questions.

Congratulations!

Jeff Ford
Research Coordinator
Walden University

APPENDIX G:

PERMISSION TO USE AN ADAPTED FORM OF THE ATTITUDES TOWARDS

VIOLENCE SCALE

10/17/06

Please consider this written permission to adapt the article detailed below for use in your dissertation. Proper attribution to the original source should be included. This permission does not include any 3rd party material found within our work. Please contact us for any further usage or publication of your dissertation.

Best regards,
Karen

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Karen.Ehrmann@sagepub.com

From: Barbara Cavanaugh [mailto:barbara.cavanaugh@gmail.com]

Sent: Wednesday, September 27, 2006 4:20 PM

To: permissions

Subject: Re: Attitudes Towards Violence Scale Survey Permission

CURRICULUM VITAE

Barbara H. Cavanaugh
5575 Tallant Rd., Apt # 3, Ooltewah, TN 37363
Home Phone: 423-321-2995
E-mail:bcavanau@waldenu.edu

EDUCATION

PhD, Professional Psychology, Walden University, Minneapolis, MN (2007)

Master of Science, Family Therapy; Community Counseling, Southern Adventist University, Collegedale, TN (1999)

Bachelor of Science, Psychology, Southern Adventist University, Collegedale, TN (1997)

PROFESSIONAL EXPERIENCE

Teacher, Forest Lake Elementary School, Physical Education Department: Forest City, FL (1988 winter quarter)

Primary responsibilities: teaching aerobics, softball, supervising dressing out for gym.

Instructor (part time), Southern Adventist University Psychology Department, Southern Adventist University, Collegedale, TN (Fall 2001)

Primary responsibilities: Taught Principles of counseling.

Counselor, Hope for Life Counseling Center, Southern Adventist University, Collegedale, TN (1998–present)

Primary responsibilities: Intake interviews; treatment plans (with goals); group supervision; marital counseling; family therapy; individual counseling.

Mental Health Consultant, Avondale Headstart, Avondale, TN (1999–2000)

Institutional mission: To provide a holistic approach to mental health in the Headstart program.

Primary responsibilities: Working, together with supervisor Dr. Michael Merriweather, with the staff, teachers, students, and parents involved with five Headstart schools in the surrounding area of Chattanooga, Tennessee. Observing the children and teachers in the classroom to target the children's symptomatic behaviors and identify teaching practices needing improvement. Counseling teachers, staff, children, and parents as needed or requested. Holding staff meetings promoting mental health and health parenting classes.

OTHER LEADERSHIP POSITIONS

Director of Day Care, Kodiak Island, AK (1970–1982)

Primary responsibilities: total care for infants through middle school in a facility open 24/6.

Director of Day Care, Orlando, FL (1982–1988)

Primary responsibilities: Total care for infants through middle school in a facility open 24/6.

Personal Trainer, Bally Health Club, Orlando FL. (1988–1990)

Primary responsibilities: Personal weight training, aerobics, and nutrition instruction.

Social Services, Samaritan Center for the underprivileged. Collegedale, TN (1994–1996).

Primary responsibilities: Distributing clothing and food, counseling services and job searching, aiding the underprivileged.

RESEARCH EXPERIENCE

Project title: Effects of Participating in Music Performance on the Development of Scholastic Skills

Research included comparing grade point averages of students not involved in music participation with those who play an instrument frequently. The study centered around the hypothesis that students who are involved in some type of musical participation will have a higher grade point average than students not involved with a musical instrument.

RESEARCH IN PROGRESS

Project title: Measuring the Effectiveness of Group Work: A Review and Analysis of Process and Outcome Measure

> This research, organizationally structured according to group stages, throws light on established reliability, validity, and factor structure. The first section of the research report describes measures related to screening, the second focuses on group leadership behaviors, and the third and fourth assess in-group and post-group behaviors, respectively.

HONORS/DISTINCTIONS:

Psi Chi National Honor Society in Psychology