2015

Relationship Between Community Violence Exposure, Gender, and Social Information Processing

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Abstract

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by

Yvonne Twana Bell

MA, Fontbonne University, 2005

BS, University of Missouri St. Louis, 2002

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

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Abstract

Violent behaviors among adolescents serve as a disruption to many aspects of society. If these behaviors remain uncorrected, there is increased potential for serious self-harm, harm to others, incarceration, and escalation of violence into homicide or suicide. The purpose of this study was to examine the relationship between youth exposure to community violence and adolescents' social information processing underlying aggressive responses, as well as the potential role of gender in moderating this relationship. A sample of 160 male and female 18-year-olds from the Midwestern United States completed an online survey, which included the Things I Have Seen and Heard (TISH) Scale to assess exposure to community violence and a measure of aggressive responding to ambiguous social situations, based on 4 vignettes devised by Crick and Dodge. The data were analyzed using moderated multiple regression analysis and correlational analysis. Results indicated that a relationship between community violence exposure and adolescents' social information processing of aggressive responses is moderated by gender; there was a significant correlation between TISH scores and the total score from the vignettes among females but not among males. The study results suggest that school-based interventions and violence prevention programs should target the ways in which adolescent girls and young women make decisions when placed in ambiguous or potentially threatening situations, with reference to the level of community violence to which they have been exposed. Hence, this study has implications for positive social change to break the cycle of community violence, based upon enhancing the understanding of mechanisms that relate previous exposure to violence and aggressive responding among youth.

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Dedication

I dedicate this paper to all adolescents throughout the world, especially to those adolescents who did not have the opportunity to benefit from the information from past research in this area that could have impacted their lives in a positive way. I would also like to dedicate this paper to schools, modifying behavioral centers, juvenile justice centers, and parents of school-aged children.

Acknowledgments

I would like to acknowledge those who supported me and contributed to my succeeding in my academic journey. I first would like to thank God, who is the head of my life. Without God, nothing that I have accomplished would have been possible, because God has given me knowledge, strength, wisdom, courage, perseverance, and all that is good within me. I would like to acknowledge my husband, Nazario Bell, who has dedicated his time to assisting me and allowing me to stay home while I accomplish my educational goals.

I would like to acknowledge my son, Anthony Brooks Jr., who has always believed in me and bragged about how smart his mother is. It was this that motivated me to strive to be the greatest that I could be so that I could continue to be a positive role model and positive influence on him. And lastly, I would like to acknowledge my mother-in-law, Charlene Bell, who has always spoken a positive word about me, who has prayed both with and for me, and who has encouraged me to follow my dreams. I know now that it is possible to reach for the stars when you have a strong support system. I thank God for everything!

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Chapter 1: Introduction to the Study

Introduction

The purpose of this research study was to examine the relationship between community violence exposure and aggressive behavior among adolescents. An extensive and thorough evaluation of the literature yielded a wealth of studies identifying both causes and effects of youth aggression that collectively provide a foundation for the enhancement of human conditions and social and behavioral changes within communities. Of particular interest is gender as a possible moderator of the relationship between exposure to community violence and social information processing, as these processes affect overall community violence and the development of adolescents.

This chapter covers the background of the topic, problem statement, purpose of the study, and research questions. The research hypotheses and important theoretical bases are also provided. The study's limitations, significance, professional application, and implications for positive social change conclude this chapter.

Background

Exposure to community violence affects the overall development of adolescents (Burdett, 2009). *Community violence exposure* consists of being a victim of or witnessing physical and emotional assault, and/or witnessing or committing burglaries, robberies, and/or homicides. Exposure to community violence produces negative effects on youth, such as problems with academic achievement and behavior issues, including dissociation, deviance, anger, and aggression in school (Frey, Ruchkin, Martin, & Schwab-Stone, 2009; Medina, Margolin, & Gordis, 2010). Aggressive behavior displayed at school can

disrupt teachers, hindering their efforts to educate students, and interferes with the learning potential of students (Bradshaw, Rogers, Ghandour, & Garbarino, 2009). Previous research has shown that exposure to violence within one's community is a potential risk factor for displaying aggressive behavior, both at school and in the community at large (Margolin et al., 2009).

There is increasing public health concern surrounding adolescents who are victims of violent acts or who observe violence within their communities (Blosnich & Bossarte, 2011; Cammack, Lambert, & Ialongo, 2011; Guterman, Haj-Yahia, Vorhies, Ismayilova, & Leshem, 2010; Woodson, Hives, & Sanders-Phillips, 2010). The increased concern is due to the negative effects of community violence, which may lead to difficulty of the adolescent in adapting emotionally, behaviorally, and functionally to the environment (Ritchers, 1993; Schiavone, 2009; Steinbrenner, 2010).

Outcomes of this difficulty in adaptation may be expressed through behavioral problems, aggression, anxiety, decreased academic functioning and achievement, depressive symptoms, emotional issues, posttraumatic stress disorders, and health-related issues (Nurius, Russell, Herting, Hooven, & Thompson, 2009; O'Donnell, Roberts, & Schwab-Stone, 2011; Steinbrenner, 2010; Vigna, Hernandez, & Kelley, 2009). Many adolescents who are exposed to community violence develop psychological problems that may manifest into problematic behaviors (Patton & Johnson, 2010). These behaviors, such as acting out toward teachers and other adults, exhibiting an inability to concentrate in school, and displaying violent behaviors, prevent youth from paying enough attention

in order to learn during school. These problematic behaviors may hinder learning, resulting in poor academic achievement (Cammack et al., 2011).

Previous research has indicated that some youths who are exposed to violence within their communities have been able to overcome the experience, while others are less fortunate and give up hope, expecting that life may not continue through adolescence or beyond into early adulthood, and becoming and remaining deeply scarred (Laenen, 2009; Reid & Sullivan, 2009). Some youths traumatized by exposure to violence appear deadened to feelings and to pain and may show restricted emotional development over time (Allwood, Bell, & Horan, 2011; Cammack et al., 2011; Kliewer et al., 2011; Scarpa, Tanaka, & Haden, 2008). An alternative response for these adolescents is to attach with peer groups or gangs as substitutes for family, thereby incorporating violence as a means of dealing with disputes or releasing frustration (Barnes, Beaver, & Miller, 2010; Halligan & Philips, 2010).

Community violence exposure among adolescents may manifest into depressive symptoms, leading to feelings of helplessness, which may negatively influence motivation to obtain goals and maintain nonviolent behaviors (Wrosch & Miller, 2009; Wrosch, Schulz, & Heckhausen, 2002). Participation in violent activities is higher among adolescents who have been exposed to community violence (Cunningham et al., 2009). Numerous research studies have shown that exposure to community violence leads to maladaptive responses among adolescents (Beaver & Holtfreter, 2009; Foster & Brooks-Gunn, 2009; Salzinger, Rosario, Feldman, & Ng-Mak, 2008). Attempts to prevent adolescents who have been exposed to community violence from acting violently and

displaying other problematic behaviors represent a larger effort to promote positive behavior responses. Bradshaw et al. (2009) reported that knowledge of how exposure to community violence is related to the behavior of youth may significantly inform the use of preventive interventions aimed at reducing violence.

Past research has determined connections between violence exposure and maladaptive responses (Salzinger et al., 2008). Researchers report that exposure to community violence among adolescents may cause feelings of being threatened, which lead youths to find ways to cope with exposure and the residual effects (McMahon, Felix, Halpert, & Petropoulos, 2009; Teitelman et al., 2010). Some responses in adolescents are manifested in behaviors including avoidance, confrontational behavior, and social support-seeking behaviors (Chan, Brownridge, Yan, Fong, & Tiwari, 2011; Jimoh, 2010; Nurius, Russell, Herting, Hooven, & Thompson, 2009).

Many studies indicate that community violence exposure among youth influences the presentation of internalizing and externalizing problems over time (Cammack et al., 2011; Foster & Brooks-Gunn, 2009; Kliewert & Sullivan, 2008; Mrug & Windle, 2010), with other studies examining factors that might explain this association (Gapen et al., 2011; Hoeve et al., 2009; Lambert, CopeLand-Linder, & Ialongo, 2008; Salzinger et al., 2008). One commonly studied set of mechanisms involves youths' cognitive processing strategies for dealing with community violence exposure. These cognitive processing mechanisms include social information processing variables such as encoding of internal and external cues, interpretation of these cues, goal selection, access to or construction of

possible responses, response decision, and behavior enactment (Crick & Dodge, 1996; Kupersmidt, Stelter, & Dodge, 2011).

According to the social information processing model, youth evaluate possible behavioral responses to a particular social situation, such as the type of outcome likely to occur for each response and the degree of confidence that they feel about their ability to perform each response (Crick & Dodge, 1996). Research shows that youth who have been exposed to a high level of violence tend to interpret cues as hostile and as a consequence react in aggressive ways (Dodge & Pettit, 2003; Rudolph, Troop-Gordon, & Flynn, 2010; Wray, Fruend, & Dougher, 2009).

In a study conducted by Bradshaw (2004), community violence exposure among youth had a great connection to processing social information from one's environment in a biased manner, where individuals who had been exposed to a high level of community violence tended to process social information in a way that informed them that they were being threatened by others, which explained why they felt the need to act aggressively toward these individuals. Research further suggests that youth exposed to community violence develop response mechanisms in an attempt to feel safe and secure from others (Salzinger et al., 2008).

Gender Differences in Community Violence Exposure and Social Information Processing

Findings suggest that gender plays a big part in how boys and girls socially process information (Bradshaw et al., 2009; Hanson et al., 2008; Moylan et al., 2010; Rah & Parke, 2008). Significant differences have been shown between boys and girls in the

social information processing variables of hostile attribution bias, aggressive response generation, and justification of aggression responses to threat (Bradshaw et al., 2009). Gender differences are detailed further in Chapter 2.

It is essential to have a greater understanding of the connection between community violence exposure and behavioral responses to aid in the development of intervention strategies that focus on preventing and treating presenting problems among adolescents who are exposed to community violence. This information may be useful for modifying behavioral programs, intervention and/or prevention behavioral programs, schools, parents, teachers, other adults, and juvenile justice centers (American Academy of Child & Adolescent Psychiatry, 2001). A gap in the recent literature remains concerning both violence exposure types and gender as a possible moderator of the relationship that exists between community violence exposure and social information processing. Recent research (Bradshaw et al., 2009) has addressed the problem and supports the need for this study, which is discussed in more detail in Chapter 2.

Problem Statement

A wealth of literature addresses the relationship among community violence exposure, gender differences in reporting exposure to community violence, community violence exposure and aggressive behavior in youth, and adolescents' adjustment and/or functioning (Cooley-Strickland et al., 2009; Graham-Bermann, Howell, & Lilly, 2011; Kelly, 2010; Roustit et al., 2009). Adolescents who are exposed to an increased amount of community violence are at a greater risk of displaying aggressive behavior than those exposed to lower levels of community violence (Bradshaw et al., 2009; Steinbrenner,

2010). Numerous research studies examining adolescents' exposure to community violence have indicated that this exposure directly affects children's behavior (Harris & Graham, 2007; Kerig, 2010; Sanders-Phillips, Settles-Reaves, Walker, & Brownlow, 2009). This study's objective was to extend previous research by exploring the role of gender as a possible moderator of the relationship between community violence exposure and social information processing among adolescents.

Researchers have concluded that future studies should include sampling of a diverse population (Bradshaw et al., 2009; Mushe-Eizenman et al., 2004; Schwartz & Proctor, 2000). In conducting this study on a diverse population, I sought to determine whether there are differences in the experiences of adolescents of different races/ethnicities. Emotional states and emotional regulation both have been found to be influencing factors in youths' ability to process social information (Musher-Eizenman et al., 2004). Also needed is further examination into whether being victimized can be associated with social information processing among diverse adolescents (Bradshaw et al., 2009; Halligan & Philips, 2010; McMahon et al., 2009). This information provides greater support for recent studies on the association between violence exposure and social information processing. This study focuses on the association between youth exposure to community violence and social information processing.

Previous researchers have studied demographics, psychology, physiology, and genetics to examine the etiology of violence and aggressive behavior (Alia-Klein et al., 2009; Ferguson, 2007; Grigorenko et al., 2010; Jethá et al., 2011; Levitt & Pieri, 2009; Natarajan et al., 2009). In this research study, I built on prior research by exploring the

manner in which emotional regulation is involved in this process, to further examine the extent to which community violence victimization is associated with biased social information processing and aggression among diverse youth (Halligan & Philips, 2010; Mushe-Eizenman et al., 2004).

Purpose of the Study

The purpose of this quantitative study was to determine whether exposure to community violence is linked to social information processing. I further evaluated whether gender moderates the relationship between community violence exposure and social information processing, specifically hostile attribution bias, aggressive response generation, and justification of aggressive responses to threat.

"Empirical findings suggest that environmental (e.g., witnessing aggression) and emotion regulation (e.g., anger control) factors contribute to the emergence and maintenance of aggressive behavior" (Musher-Eizenman et al., 2004, p. 389). The processing of one's internal state of being, which includes the encounter of an emotional event and regulation, has been combined by integral interpretation in association with the impact environment has on a person's reasoning and community performance (Musher-Eizenman et al., 2004). Traumatic experience affecting the mental state has been shown to affect youth's potential to assess environmental clues accurately.

Taking this into account, it is expected that youth who have been victims or observers of violence will experience mental instability as a result and will have difficulty coping, leading to the display of unwanted behavior. An example, youth faced with continuous violence exposure tend to become numb to violence and see it as a

normal way to handle disagreements (Musher-Eizenman et al., 2004). Understanding the possible role of social information processing is a first step toward understanding the impact of community violence exposure on aggressive behaviors among male and female youth.

Regarding emotional regulation status, it is reported that youth who have an increased potential of experiencing elevated levels of emotional issues have the possibility of being devastated, leading to the inability to evaluate different ways to react to problematic situations besides displaying aggressive behavior. If this occurs, this negative coping style is believed to assist in enhancing the association of biased social processing of information and the display of aggressive outcomes (Musher-Eizenman et al., 2004). Identifying potential causes of youth aggression has been an issue due to limited research on how youth socially process information in problematic situations.

This study serves to inform school-based interventions and violence prevention programs, behavioral modification centers, and juvenile justice centers toward breaking the cycle of violence and enhancing understanding of the mechanisms that moderate the association between violence exposure and social information processing. For this research study, I used surveys and vignettes to measure the relationship between community violence exposure and biased social information processing of aggressive responses and to determine whether this relationship is moderated by gender.

Research Questions

The following research questions originated from a review of existing literature in the area of the origins of violence, community violence exposure, and behavior responses. This study was designed to answer the following research questions.

1. Is there an association between youth exposure to community violence and adolescents' social information processing of aggressive responses?
2 Is there a difference between male and female reports of exposure to community violence?
3. Does gender moderate the relationship between community violence exposure and social information processing?

Hypotheses

The following hypotheses were tested to determine the effect of community violence exposure on social information processing:

$H_0$1**:** There is no association between youth exposure to community violence and adolescents' social information processing of aggressive responses as measured by vignette responses.

H_a1**:** There is an association between youth exposure to community violence and adolescents' social information processing of aggressive responses as measured by vignette responses.

$H_0$2**:** There is no difference between males' and females' reports of exposure to community violence as measured by the demographic questionnaire form and the Things I Have Seen and Heard Scale.

H_a2**:** There is a difference between males' and females' reports of exposure to community violence as measured by the demographic questionnaire form and the Things I Have Seen and Heard Scale.

$H_0$3: Gender does not moderate the relationship between community violence exposure and social information processing.

H_a3**:** Gender moderates the relationship between community violence exposure and social processing.

Theoretical Basis

The human mind has evolved through experience with stressful environments to become more aggressive (Teicher, 2002). This adaptation combines with genetics, family behavior, psychology, physiology, neurobiology, and environmental factors to produce violent behavior (Baird, Silver, & Veague, 2010; Barker et al., 2011; Beitchman et al., 2012; Bezdjian, Tuvblad, Raine, & Baker, 2011; Pfaff, Kavaliers, & Choleris, 2008; Reijntjes, Kamphuis, Thomas, Bushman, & Telch, 2013; Teicher, 2002; Vierikko, Pulkkinen, Kaprio, & Rose, 2006). In addition, the relationship between exposure to violence, certain genetic variants, and the effects of violence may add to an environment of violence, influencing violent behavior in others (Nelson & Trainor, 2007; Phillips, 2006; Tupin, 2000).

The social cognitive perspective was the major theoretical basis for this research study, with a primary goal of examining environmental effects on behavior responses (Bandura, 1986). Theories of human behavior such as social cognitive theory, social learning theory, and social-ecological theory have focused on behaviors as reactions to

influences. Within social cognitive theory, social learning theory, and social ecological theory, human behaviors are viewed as actively learned behaviors and road maps for future behavior (Bronfenbrenner, 1979; Doyle, 1997; Gibson, 1979; Vygotsky, 1978). Social learning theory and cognitive learning theory may be used to explain human behavior as learned from others in a context with cultural influences (Baird, Scott, Dearing, & Hamill, 2009; Bandura, 2002).

Albert Bandura is considered responsible for producing groundbreaking contributions to the field of psychology, including social cognitive theory and personality psychology. Bandura (1986), as the father of the behaviorist theory and cognitive movement, is one of the foremost advocates of social learning approaches to psychotherapy and is responsible for using psychotherapy in the modification of behavior. Bandura applied social learning theory to the analysis and control of aggressive behavior, through proposing three mechanisms for the delivery of aggression: through families, subcultures of peers, and symbols, such as television or other vehicles in the environment (Malley-Morrison, Oh, Wu, & Zaveri, 2009). Bandura's social learning theory is also referred to as *observational learning* and *social modeling*.

Bandura's (2002) social learning theory provides a scientific basis for explaining the relationship between environmental influences and behavioral influences. Social learning theory suggests that witnessing violent interactions contributes to vicariously acquiring aggressive behavior (Diclemente, Santelli, & Crosby, 2009). Bandura's social learning theory, later renamed *social cognitive theory*, indicates that environmental influences are responsible for behavioral outcomes, personal factors, and attributes of the

behavior itself (Grizzel, 2007). Further, each may affect or be affected by either of the other two. Bandura (1986) presumed that learning aggressive behavior may be acquired through the direct observation of the specific behavior displayed. Social cognitive theory relates to this study's approach in that this theory suggests that the environment affects behavior. Through this study, I aimed to address research questions to determine whether community violence exposure contributes to biased social information processing and aggressive behavior responses among adolescents.

Many antecedents may contribute to aggressive behavior and the multiple risk factors that are associated with violent behavior (Burton, Duty, & Leibowitz, 2011; Casey & Beadnell, 2010; Chauhan & Reppucci, 2009; Okour & Hijazi, 2009; Xue, Zimmerman, & Cunningham, 2009). The identification of social information processing may aid in the recognition of mechanisms that underlie the negative behavioral effects of violence exposure (Su, Mrug, & Windle, 2010). Both Bronfenbrenner (1979) and Bandura (1973) asserted that exposure to violence influences the manner in which youth process subsequent and potentially conflicting interactions. What this means is that youth who have been exposed to a high degree of violence may misinterpret social cues, thus viewing ambiguous situations or phrases as threatening or offensive, which may then lead them to react aggressively. Youth who frequently witness violence may see it as a normative way to resolve disagreements with others, especially if it results in some gain for the perpetrator (Bandura, 1973; Touley, 1993).

Additionally, a youth exposed to high levels of community violence may misinterpret the meaning of others' actions; for instance, if a peer spills milk on the

youth's shoe, the youth may not view this as an accident, but as an attempt to inflict harm, thus resulting in the need to retaliate as a means of self-protection (Bandura, 1986). The effects of exposure to violence may contribute to the creation of negatively biased social information processing styles, which further results in the display of aggressive behavior (Bradshaw et al., 2009). According to Bradshaw et al. (2009), when youths have been exposed to high levels of community violence, their sensitivity to hostile cues in the environment becomes heightened, the availability of aggressive strategies for resolving situations increases, and they begin to believe that aggression is an appropriate and normal response to violence. As applied to my study, this theory helps in addressing Research Question 3, which concerns whether gender moderates the association between youth exposure to community violence and social information processing variables such as hostile attribution bias, aggressive response generation, and justification of aggressive responses to threat.

Nature of the Study

This research evolved due to existing literature that indicated a need for an enhanced understanding of the role of community violence exposure in the social information processing of adolescents and gender as a moderator of the relationship (Bradshaw et al., 2009; Cooley-Strickland et al., 2009; Moylan et al., 2010; Rah & Parke, 2008).

The significance of this research rests in its examination of the effects of community violence exposure on social information processing and whether gender moderates the relationship between the two. The data gathered in this research may

identify one of the causes of biased social information processing leading to adolescents' aggressive behaviors. Adolescent aggression evolved into a health concern for public health (Voisin & Torsten, 2010).

The rationale for the selection of a quantitative design was that it would aid in understanding the influence of community violence exposure on social information processing, which could help in identifying ways to contribute to good health and the prevention of problematic behaviors. Enhancing understanding of how community violence exposure contributes to biased social information processing and the display of aggressive behaviors may benefit intervention programs aimed at the prevention of violence in school environments and communities. The participants within this study consisted of a convenience sample of male and female adolescents 18 years of age who resided in the Midwest.

The adolescents' self-report of their experience of community violence exposure over the course of their lives was assessed with 10 questions from the Things I Have Seen and Heard Scale (Richters & Martinez, 1990). Hostile attribution bias, aggressive response generation, and justification of aggression responses to threat as social information processing variables were assessed through four vignettes (Crick & Dodge 1994; Dodge & Frame, 1982). The scenarios presented in the vignettes involve ambiguous behavior on the part of a peer (i.e., a peer throws a ball and hits one in the middle of the back; a peer says that one cannot play with the peer and others on the playground; a peer bumps one from behind, causing one's new sneakers to get muddy; a peer says that one cannot sit with the peer and others at lunch).

Participants were asked to read each scenario and write a brief statement describing their interpretation of the peer's intent and their own likely response (Bradshaw et al., 2009). The results from the vignettes were gathered from the participants' responses. Chapter 3 provides a detailed discussion of the nature of the study and research methodology.

Definition of Terms

Aggression is behavior aimed at causing injury or harm to another person. Aggression can result in insulting another via verbal threat, psychological control, or physical assault (Fite et al., 2008).

Community violence exposure is defined as witnessing and/or being a victim of acts of interpersonal violence performed by individuals who are not closely related to, including such acts as sexual assault, burglary, street muggings, gang shootings, weapon usage, and hearing gunshots (National Center for Children Exposed to Violence, 2006).

Hostile attribution bias is defined as a tendency to analyze others' actions as causes for revenge (Halligan & Philips, 2010; Mikami, Hinshaw, Lee, & Mullin, 2008). It is a form of social information processing that describes how youth perceive situations (Su et al., 2010).

Perception is defined as sensing, interpreting, and understanding the world in which one lives based upon internal and external attributes (Breet, Myburgh, & Poggenpoel, 2010).

*Social cognitive mediator*s are defined as factors that intervene between exposure and how one perceives a situation, which influence how one responds to the situation

(Bradshaw et al., 2009). In the study, these mediators were hostile attribution bias, aggressive response generation, and justification of aggression responses to threat (Bradshaw et al., 2009).

Social cognitive processing is tacit understanding of the social environment: personal understanding (Boxer & Dubow, 2002).

Social information processing (SIP) is defined as complex linkages between encoding information and internal cues (perception), the selection or clarification of a goal, generating responses to accomplish goals, and choosing a response (attitudes) and behaviors (Bradshaw et al., 2009). *SIP biases* are defined as well-established correlates of overt physical aggression (Halligan & Philips, 2010; Mikami et al., 2008).

"Violence is the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, maladjustment, or deprivation" (World Health Organization [WHO], 2011, p. 1). According to the WHO (2011), these types of violence include *self-directed violence* (self-abuse, suicide), *interpersonal violence* (community violence, partner violence, imitate partner violence), and *collective violence* (terrorism).

Assumptions

The plague of youth violence has drawn concerns from legislators, educators, academics, parents, and youths (Maerlender, & Kovner-Kline, 2010). The concerns addressed herein stem from the assumptions that many adolescents are exposed to an increased amount of community violence and that adolescents exposed to community

violence develop internal emotional and psychological issues that can manifest as problematic behaviors.

By extension, it was assumed that among youth exposed to community violence, levels of psychosocial adjustment are significantly impacted and may lead to psychological symptoms, which may be responsible for impaired school performance (Mathews, Dempsey, Overstreet, 2009; Medina et al., 2010; Salzinger et al., 2008). Another assumption was that the types of violence youth display correlate with the types of violence they have witnessed or experienced within the community at large. These assumptions were based on evidence from multiple research studies indicating that exposure to community violence is a public health concern (Blosnich & Bossarte, 2011; Cammack et al., 2011; Centers for Disease Control and Prevention, 2012; Woodson et al., 2010).

Limitations

One limitation of this study was that the sample may not be representative of youths acting violently as a direct result of being exposed to community violence. Male adolescents commonly fight rough with each other (Ball et al., 2007; Lewis, Butler, Bonner, & Joubert, 2010). The cause of this type of fighting is not always exposure to community violence; it might be regarded as normal adolescent male behavior. In addition, alternative explanations of aggressive behavior may have confounded the study's ability to clearly determine the impact associated with community violence exposure.

Another limitation of this study was the limited amount of time for the research project, which was not sufficient to determine the full effects community violence exposure may have on adolescent behavior.

The use of cross-sectional research data to assess community violence exposure's effects on behavior was an additional limitation. With the use of a cross-sectional design, it is difficult to determine the direction of the associations of the variables under study (Bradshaw et al., 2009). In order to ascertain the direction of the association and gain understanding of the relationship of community violence exposure to social-cognitive processes and youth behavior, longitudinal research is warranted.

Finally, some participants may have answered questions based on their perception of what I wanted them to say.

Delimitations

This study was limited to sampling a population of youth in the Midwestern U.S. states. Data were collected by surveys and vignettes assessing hostile biases, aggressive response generation, and justification of aggression responses to threat when faced with problematic situations. This study was limited to evaluating the effects of community violence exposure on adolescent social information processing.

This research study did not assess alternative explanations for aggressive behavior, which include the following: genetics, attention deficit hyperactivity disorder (ADHD), and other related, undetected mental health problems. Another delimitation was that this research could not address all types of violence exposure. For example, no consideration was allotted to violence exposure occurring as a necessary part of wars, or

as the result of cultural-religious factors, mob violence, sports-sanctioned violence, or violence as a necessary part of law enforcement.

Other forms of violence exposure could be addressed in future studies using this research design, such as dating violence, family violence, and rampage shooting violence. Vicarious violence exposure through violent video games is one example of violence exposure receiving recent attention and is not addressed here (Ferguson, 2007). In addition, violence on television has been found to be associated with dulled sensitivity toward the needs of others, and this was not examined in this study (Hassan et al., 2009).

Significance of the Study

This research contributes to the literature on the impact of exposure to violence among adolescents in examining the effects of community violence exposure on adolescents' social processing of information and behavior. The data gathered in this research may identify whether a correlation exists between community violence exposure and biased social information processing among adolescents. Aggression among adolescents has evolved into a public health matter (Voisin & Torsten, 2010). Understanding the influence of community violence exposure on social information processing and behavior may also help in identifying ways to contribute to good health and the prevention of biased social information processing and aggressive behaviors. An enhanced understanding of how community violence exposure contributes to biased social information processing with the potential to display aggressive behaviors may benefit intervention programs aimed at the prevention of violence in school environments and communities.

Professional Application

This study was conducted in order to provide a new perspective on current knowledge concerning adolescent violence exposure, as well as gender as a possible moderator of community violence exposure and social information processing. My intention is to provide communities, other researchers, educators, and behavioral modification programs with supplementary supportive evidence concerning recent perceptions to assist in the promotion of positive social change.

Implications for Positive Social Change

This research study has implications for deep and positive social change. Identifying the relationship between community violence exposure and youth social information processing sets the foundation for the improvement of human conditions and social-behavioral changes within communities. This study may increase awareness regarding the impact of exposure to community violence on biased social information processing with the potential to result in aggressive behaviors in youth. The results will be used to suggest mechanisms that are needed to develop programs to alter biased social information processing and help youth develop skills that aid them in resolving contention. In addition, I intend for this study to fill gaps in current literature and provide suggestions for evidence-based strategies that may be used in the prevention of biased thought processes and aggressive behavior (Bradshaw et al., 2009; Farrell et al., 2008; Zona & Milan, 2011).

The results of this study may also be used by those starting community programs to achieve the reduction of violent behavior among youth. The study may aid those

promoting social policy change or seeking funding for community violence prevention programs that target youth. Over the long term, the results of this study may pave the way for professional research addressing this rising public health problem in the Midwest and throughout the United States. Recent research on the effects of community violence exposure on the development of youth suggests that an updated analysis of these effects in areas such as the Midwest is warranted. The literature supporting this study is outlined in Chapter 2.

Summary and Transition

A great deal of research has confirmed that community violence exposure affects adolescents' overall development (Bradshaw et al., 2009; Foster & Brooks-Gunn, 2009; Furlong et al., 2009; Voisin, 2007). A youth exposed to violence has an increased risk of socially processing information as negative, which may lead to aggressive behavior (Arsenio, Adams, & Gold, 2009; Gomez, 2011; Halligan & Philips, 2010).

In this study, I used a correlational research design to explore whether a relationship exists between community violence exposure and biased social information processing that may result in aggressive behavior, as well as whether gender moderates this association among a sample of youth in the Midwest. Exposure to violence affects the processing of thoughts, leading to the development of hostile attribution bias, aggressive response generation, and justification of aggression responses to threat. The terms *hostile attribution bias*, *aggressive response generation*, and *justification of aggressive responses to threat* describe an individual feeling the need to retaliate against others who are perceived as being a threat. Such individuals think that even ambiguous

environmental cues are threatening. This faulty thinking is responsible for disruptive behavior displayed by adolescents. These behaviors prevent concentration in school, which is necessary to succeed academically (Bradshaw et al., 2009). Social learning theory (Bandura, 1973) and cognitive learning theory (Miller & Dollard, 1941) describe human behavior as behavior that is learned from the surrounding environment and served as the theoretical foundation for the study.

Adolescent exposure to community violence is a social issue that affects youth emotionally, socially, and behaviorally, influencing their overall adjustment and functioning within their environment. Inability to adjust to the surrounding environment may lead to biased social information processing, the display of aggressive behavior, decreased academic functioning and success, emotional problems, and health problems (Kelly, Schwartz, Gorman, & Nakamoto, 2008; Swisher & Latzman, 2008; Vigna et al., 2009; Vogler, Crivello, & Woodhead, 2008; Zona & Milan, 2011). A greater understanding of violence exposure's effects on adolescent social information processing and behavior may assist the staff of school-based intervention programs and behavior modification facilities in the evaluation of current prevention strategies.

Chapter 2 contains a detailed analysis of existing literature on the effects violence exposure causes for the human mind and body. This chapter highlights the origins of violence and the influence of exposure to violence on adolescents' functioning.

Chapter 3 contains a description of the methodology that was used to answer the research questions. In this chapter, I discuss the use of a correlational research design approach using bivariate, descriptive, and moderation analyses as valid means to answer

the research questions and hypothesis. Chapter 3 also contains a description of the study's design, sample population, instrumentation and procedures, analysis of data, and ethical considerations.

Chapter 4 contains a detailed description of the results of the data analysis, data collection methods, description of the sample, the demographic questionnaire table, the Things I Have Seen and Heard Scale table and results, Vignette tables and results, research questions and hypotheses, moderator hypotheses, and summary.

Chapter 5 highlights the study's conclusion and recommendations based on the findings.

Chapter 2: Literature Review

Introduction

Adolescent exposure to community violence has become an increased public health concern due to its effects on youth behavior and development (Cammack et al., 2011; Garrido, Culhane, Raviv, & Taussig, 2010; McMahon et al., 2009; Milam, Furr-Holden, & Leaf, 2010; Rosario, Salzinger, Feldman, & Ng-Mak, 2008). Community violence exposure affects adolescents emotionally, socially, and behaviorally, in addition to affecting their overall adjustment and functioning within their environment (Bailey, Hannigan, Delaney-Black, Covington, & Sokol, 2006; Bradshaw et al., 2009; Kaynak, Lepore, & Kliewer, 2011; McDonald & Richmond, 2008).

Failure to adjust to one's environment influences the outcomes of aggressive behavior, poor academic achievement, and emotional and health issues (Bradshaw et al., 2009; McAloney, McCrystal, Percy, & McCartan, 2009; Voisin, 2007). Knowledge of community violence exposure's effects on adolescents' behavior and overall adjustment and functioning within their environment may support the staff of school-based intervention programs and behavior transformation centers in the assessment of current prevention strategies (Lambert, Nylund-Gibson, Copeland-Linder, & Ialongo, 2010; Milam et al., 2010; O'Donnell et al., 2011).

A synopsis of historical perspectives on exposure to violence and aggressive behaviors begins the literature review. I then present an analysis of research on contributing factors and types of community violence exposure. In addition, Chapter 2 contains a review of the literature relating to community violence exposure's effects on

adolescents' behavior, development, life adjustment, social information processing, and emotional regulation. The literature review contained in this chapter addresses issues outlined in Chapter 1, such as the potential effects of exposure to violence on adolescents' health, social adjustment, functioning, and academic performance. Related research on gender differences in aggressive behavior, the theoretical foundations of this study of youth violence exposure and aggression, and research methodologies appropriate for the study of community violence exposure and aggressive behavior are also presented.

Literature Search Strategy

The databases used for locating the current literature were provided by the online library of Walden University and included EBSCOhost, Academic Search Complete/Premier, PsycINFO, PsycArticles, PsycExtra, ERIC, ProQuest, Science Direct, Mental Measurements Yearbook, Education Research Complete, Health and Psychosocial Instruments, and Medline. The scope of the search was limited to the last 3 to 5 years with the exception of seminal works.

Keywords for the literature search were *aggression, aggressive behavior, community violence exposure, gang violence, assault, effects of behavior, social information processing, mediators, posttraumatic stress disorder, origins of violence,* and *violence effects.*

Violence Exposure

Violence is witnessed and experienced daily within the United States and globally. Violence is believed to be the primary reason for deaths among youth,

predominantly affecting males. Approximately 430 youth 10 to 24 years of age die each day as a result of interpersonal violence (WHO, 2011). In the United States, violence is a serious public health issue, accounting for an estimated 51,000 deaths per year (Centers for Disease Control and Prevention, 2012). In 2007, over 18,000 individuals were victims of homicide and more than 34,000 committed suicide (Centers for Disease Control and Prevention, 2012).

Even more disturbing rates of nonfatal violent behavior indicate the mental and physical harm that can be seen in those who suffer associated injuries (Centers for Disease Control and Prevention, 2006). Violence-related injury has been found to be the leading cause of youth mortality nationwide (Rozenfeld & Peleg, 2009; Zarza et al., 2009). The WHO (2012) described violence perpetration as the deliberate use of physical power toward another, or against a group or community that ends in death, psychological harm, maladjustment, or deprivation. The WHO (2010) further separated violence into three types: self-directed (suicidal behavior, self-abuse), interpersonal violence (family violence, intimate partner violence, community violence), and collective violence (social, political, economic violence). This study focused on community violence exposure.

Exposure to community violence has become a rampant and normal occurrence among humans. Examples of community violence are vandalism of property, acts of bullying, homicide, suicide, aggression, class disruption, and burglary. Not one single reason is sufficient to explain the origins of violence and the effects community violence has on youth. A complicated process involves the factors contributing to violence and the interaction of effects with the situational settings, decision making, and behavioral

responses that produce violent acts (Blackburn, 2009; Bradshaw et al., 2009; Garrido et al., 2010; McMahon et al., 2009; Scarpa et al., 2008). Cammack et al. (2011, p. 106) reported, "In an ethnically diverse sample of older adolescents, nearly 98% of the sample reported witnessing a person being victimized by community violence".

Many efforts to explain violence involve socioeconomic demographics (Brewer, 2007). In a previous research study on demographics, researchers attempted to predict or explain the cause of violent behavior (Reif et al., 2007). Researchers have asserted that individuals who are born and reared in impoverished communities, who are members of minority groups, and who have low socioeconomic status are at a greater risk for displaying aggression (Arsenio et al., 2009). Researchers have suggested that demographic factors contribute to certain types of psychological problems (e.g., extreme family stress) that may result in people becoming aggressive/violent (Bradshaw et al., 2009; Zahradnik, Stewart, Stevens, & Wekerle, 2009).

Some have reported that community violence exposure significantly affects behavior and contributes to poor academic achievement and school dropout (Farrell et al., 2008; Mathews et al., 2009). Numerous studies indicate that community violence exposure can depress a child, cause feelings of helplessness, and create susceptibility to negative influences (Alvarez-Rivera & Fox, 2010; Boyd, Wooden, Munro, Liu, & Ten Have, 2008; Mathews et al., 2009; Wrosch & Miller, 2009). Such feelings can contribute to the display of youth aggression, with the interpretation of others' actions and the decision-making process serving as a social-cognitive mediator developed for protecting oneself (Bradshaw et al., 2009).

The development of social-cognitive mediators leads some to become hostile at school (Arsenio et al., 2009; Dodge, Coie, & Lynam, 2006; Shahinfar, Janis, & Louis, 2001). Some students who have been exposed to community violence may begin to view violence as a normal form of behavior and may thus assume violent characteristics, regardless of the consequences, to cope with the stressors of life (Dodge et al., 2006). Previous research indicates that a hostile attribution bias results from a person's development of a false belief about the behavior of others, whereby the person assumes that another person is being hostile when this is not the case (Camodeca, Goossens, Schuengel & Terwogt, 2003; Crick & Dodge, 1996).

For example, imagine that a female youth who is new to a school is sitting in the lunchroom alone at a table as two adolescent girls on the cheerleading squad enter the room, giggling. The female youth thinks that the two cheerleaders' giggles are directed at her and thus interprets their behavior of giggling as hostility towards her, even though the cheerleaders' behavior was innocent. Prior research indicated a relationship between aggressive behavior and hostile attribution bias, where individuals who develop the belief that the behavior of another person is hostility directed at them also have a greater chance of participating in violent acts as a response to the perceived intent (Camodeca & Goossens, 2005; Lansu, Cillessen, & Bukowski, 2013; Steinberg & Dodge, 1983).

The effects of community violence exposure can be classified into two categories: the social environment and physiology, including chemical, psychological, genetic, neural, and biological constructs. The social environment represents outside influences on behavior. Physiology represents inside influences on behavior. The effects of violence

exposure in one domain are affected by effects in the opposite domain. A psychological disorder or neural structures predisposing one to aggressive behavior can create an atmosphere of tension (Tull, Jakupcak, Paulson, & Gratz, 2007). Take aggressive social structures, for example. Those in gangs may be responsible for predisposing a person to aggressive behavior, which can cause or encourage psychological problems. Therefore, it appears that no cause or effect of violence should be considered singularly.

Types of Community Violence

There are many forms of community violence to which youth can be exposed. At one end of the spectrum, community violence can involve severe acts of violence (Gardner & Brooks-Gunn, 2009; Kaynak, Lepore, & Kliewer, 2011; Koposovt & Ruchkin, 2011; Lambert, Nylund-Gibson, Copeland-Linder, & Ialongo, 2010). According to the U.S. Department of Justice (2013), violent deaths among youth are greatly attributed to homicide, particularly violence with firearms. Firearm violence is significantly associated with higher medical and work loss costs (U.S. Department of Justice, 2013).

H**omicidal Violence**

Homicide is the number two reason for death among young people and is primary responsible for deaths among African American male youth (Hankin, Hertz, & Simon, 2010; Hu, Webster, & Baker, 2008). It has been shown that homicidal violence is associated with the use of weapons and deaths among youth (Klein, 2009; Legge, 2008; Robinson et al., 2009).

Firearms have been reported to be the leading cause of fatalities among adolescents in urban communities (Logue, 2008; U.S. Department of Justice, 2013). The rate of deaths linked to firearms among adolescent males in the United States has been shown to be 4.5-50 times greater than rates reported in other developed countries (Logue, 2008).

The National Center for Injury Prevention and Control (2009) and the Centers for Disease Control and Prevention in 2007 reported that a total of 1,350 juvenile delinquents were arrested for murder. Juvenile and criminal justice data suggest that 10% of the more than 20,000 reported homicides annually are committed by people 18 years of age or younger (U.S. Department of Justice, 2011). A major contributing factor to youth homicidal violence is the extensive availability of weapons.

Researchers estimate have estimated that 40% of all households in the United States have at least one gun, and the accessibility of that particular firearm is broadly regarded as a significant contributing factor to increases in youth rates of homicidal violence (Feder, Levant, & Dean, 2007). Researchers have also indicated that a decline in youth violence has occurred in recent years, with violence among adolescents under the age of 18 years declining by 49% between 1994 and 2004 (Jenson, 2007; Snyder & Sickmond, 2006). A drop in assaults, especially fighting (homicidal violence usually occurs after this act), may provide an explanation for the decline in weapons-associated homicide (Snyder & Sickmond, 2006).

Assault Violence

The primary type of violence exposure among youth is assault from peers (Blackstone, Wiebe, Mollen, Kalra, & Fein, 2009; Brendgen, Vitaro, Tremblay, & Wanner, 2002; Centers for Disease Control and Prevention, 2011; Critchfield, Levy, Clarkin, & Kernberg, 2008; Pagari et al., 2009; Papakostas, Chuzi, Sousa, & Fava, 2010; Reijntjes, Kamphuis, Thomas, Bushman, & Telch, 2012; Reiss & Roth, 1993; Weismoore, & Esposito-Smythers, 2010; Young, Grey, & Boyd, 2009). The National Incident Based Reporting System reported that sexual assault is more prevalent among adolescents than in other age groups, with 33% of all victims falling within the ages of 13 to 17 years (Young et al., 2009).

Fighting incidents have been greatly reported in current research as assaults among youth (Centers for Disease Control and Prevention, 2008). According to the National Youth Risk Behavior Survey in 2007, 35% of youth self-reported being in a physical fight one or more times during the year prior to the survey, with incidence higher among males (44%) than females (27%; Centers for Disease Control and Prevention, 2008).

African American males have the highest incidence of self-reported assaults, such as getting into a physical fight (50%), compared to their Caucasian (41%) and Hispanic (47%) counterparts (Centers for Disease Control and Prevention, 2008). A surveillance study of fight-related assaults indicated that risk factors for this harm type included a previous violent history (as a victim or perpetrator); drug, alcohol, and/or tobacco use,

involvement with deviant peers; and family dysfunction (Centers for Disease Control and Prevention, 2010).

School Violence

School violence, a subsection of youth violence, is a broad public health issue (Centers for Disease Control and Prevention, 2012). The rate of school-related student homicides declined between 1992 and 2006 (7 per 100,000 students to 3 per 100,000 students) while remaining fairly steady (3 per 100,000) in recent years (Centers for Disease Control and Prevention, 2012). According to the Centers for Disease Control and Prevention (2012), from 1996 to 2006, a majority of school-related violence was the result of injuries inflicted from guns (65%), from being stabbed or cut (27%), and beatings (12%).

The landscape of safety within schools in the Unites States drastically changed with the outbreak of rampage shootings such as the shooting at Columbine High School in 1999, the 2005 Red Lake High School shootings, and the 2006 shootings at the Amish school in West Nichols Mines, Pennsylvania, where many youth were killed and wounded (Hong, Cho, Allen-Meares, & Espelage, 2011; Meyer-Adams & Conner, 2008). The United States did not use a working model or violence prevention theory to respond to school shootings. Instead, they used greatly increased safety and security measures while neglecting preventive measures (Hong et al., 2011; Meyer-Adams & Conner, 2008).

Numerous research reports indicate that youth are involved in a large portion of violence cases nationwide, particularly assaults such as bullying (30%), as victims or

perpetrators (Bradshaw, O'Brennan, & Sawyer, 2008; Centers for Disease Control and Prevention, 2006). Research reports indicate that so-called trivial violent acts such as bullying, when left unattended and unaddressed, result in an increase in school violence (Chambers, Zyronski, Asner-Self, & Kimemia, 2010).

Chambers et al. (2010) analyzed a study conducted in St. Louis and concluded that 40% of all violent offenses against youths between ages of 12 and 19 occurred on school grounds. According to the U.S. Department of Education (2007) and the U.S. Department of Justice (2007), students between the ages of 12 and 18 years are victims of approximately 628,000 violent behaviors and crimes while attending school. A cross-sectional study conducted by Wright and Fitzpatrick (2006) indicated that fighting is a well-known dysfunctional behavior that mostly transpires within schools.

Research also indicates that more than 15% of youth fought a minimum of six times or more within the last 30 days (Wright & Fitzpatrick, 2006). Data from the 2005 U.S. Youth Risk Behavior Survey indicated a 1-year prevalence rate of being involved in a physical altercation on school property among youth in the United States of 13%, where males (18%) outnumbered females (8%) in involvement in fighting episodes (Muula, Rudatsikira, & Siziya, 2008).

Gang Violence

Gang violence and its impact on communities, municipalities, and rural areas has become a major concern in the United States for the public; local, state, and federal policymakers; and law enforcement agencies (Parker, Luther, & Murphy, 2007). Gang violence is described as encompassing any physical interaction in which an individual is

involved as an aggressor or victim and has been viewed as part of community violence (Kelly, 2010). Numerous youth gang prevention programs were formed as early as the 1930s to inhibit the development of gangs and to put a stop to gangs' negative effects on youth (Parker et al., 2007). In an analysis of current gang prevention and intervention efforts, Howell reported that the history of efforts to solve the youth gang problem in the United States has been largely filled with frustrations and failures (Parker et al., 2007). According to the National Youth Gang Survey, there are an estimated 24,000 active gangs in the United States; the U.S. Department of Justice reports an average of 760,000 gang members (Kelly, 2010).

Gang violence is a significant and increasing issue among African American adolescents within urban communities. The National Youth Gang Center's (2011) investigation on gang violence found, according to law officials, that African American and Latino youth make up a large number of violent offenders compared to other racial groups and more than 38% of African American adolescents were found to be affiliated with a gang in some large cities in the U.S.

Gender has also been shown to play a role in adolescent gang participation (Kelly, 2010). Research reports that adolescent females' who have experienced community violence exposure and become involved in gang related activities involvement predict their they will most likely become involved in some type of violent act, whereas adolescent males are more prone to joining a gang and after being exposed to violence participate in violent activities (Breslau & Anthony, 2007; Kelly, 2010).

Gender Role Differences

Male and female youth have been found to experience violence exposure and its impact differently. Gender differences are present in frequency and type of violence exposure (Frederiksen, Helweg-Larsen, & Larsen, 2008). These differences are discussed primarily in terms of frequency and type.

Risk factors also differ by gender. Frequent alcohol consumption is a strong risk factor for violent behavior among adolescent females, whereas alcohol consumption was associated with exposure to violence outside of the home for males, not for females. Research reports 48% of girls and 58% of boys reported drinking alcohol at least weekly compared to 35% of girls and 33% of boys in a UK cross-sectional study of relations between alcohol, violence exposure, social information processing and victimization in adolescence (Frederiksen et al., 2008).

According to Websdale and Johnson (2005), in rural communities, high occurrences of patriarchal beliefs have been viewed as a factor in predisposing females to stay in violent relationships. A patriarchal system is where the father is the primary authority figure and has authority over children, women, and property. Female members of this system are more prone to staying in abusive relationships because it is normal for females to be submissive towards male control. Males are at a greater risk of experiencing relationship violence than their female counterparts and there is a strong connection between early aggression and delinquency among males, but researchers have not found a similar relationship among females (Carlson & Slovak, 2007; Whitney, Renner, & Herrenkohl, 2010).

Male youth in urban communities experience greater exposure to numerous risks connected to later delinquency than female youth (Fagan, Van Horn, Hawkins, & Arthur, 2007). Whitney et al., (2010) report boys' violence experiences consist of having a great exposure to friends that display negative behavior outcomes, poor academic achievement, and defiance towards authoritative figures, as well as other risk factors, whereas girls experiences mainly included being a part of a dysfunction family and lacking relationships with their fathers. Related research has suggested that differences among gender exist predominately for youth between 8 and 12 years of age (Centers for Disease Control and Prevention, 2011).

According to Frederiksen et al. (2008), females who are exposed to violence within the home have an increased chance of lacking a confident bond with their mothers compared to males. In addition, gender influences the frequency and occurrence of psychopathology that occurs as a result of violence exposure. Researchers report males and females often react differently to traumatic experiences. For example, female youth have a higher incidence of being diagnosed with posttraumatic stress disorder when exposed to trauma compared to their male counterparts (Ruchkin, Henrich, Jones, Vermeiren, & Schwab-Stone, 2007). Males and females experience differences in the types of behaviors that result from trauma exposure, with females tending to respond to trauma with more internalizing behaviors, whereas males are at an elevated risk of experiencing externalizing issues (Ruchkin et al., 2007).

A wealth of studies have examined the relationship between community violence exposure and social information processing among adolescents (Arsenio et al.,

2009; Camodeca & Goossens, 2005; Dodge, Coie, & Lynam, 2006; Steinberg& Dodge, 1986). However, there has been less research examining whether gender moderates the relationship between community violence exposure and social information processing among adolescents (Bradshaw et al., 2009). Although there have been other studies that investigated how social information processing play a role in youth's behavior, health, and well-being not many have assessed what causes adolescents to develop bias and faulty SIP, but ecological Bronfenbrenner, asserted that a factor that is responsible for youth bias processing of information is being exposed to violence (Zona & Milan, 2011).

It has been shown that people who are exposed to violence chose to approve of it or develop negative ways of processing information, thus gender has been shown to play a role in how one socially processes clues in the environment (Bradshaw et al., 2009; Ziv, 2012). Having a greater understanding of this mechanism can increase youth's knowledge of developing alternative ways for handling social issues instead of reacting aggressively (Bradshaw et al., 2009). A prior study highlights in great detail that a there is a suspected relationship existing between exposure to violence and social information processing (Calvete & Orue, 2012; Ziv, 2012). A particular study explored gender as a moderator by assessing whether environmental involvement affects the actions of youth in urban and suburban communities (Musher-Eizenman et al., 2004) and thus outline that indeed gender does play a role in moderating the association between community violence exposure and social processing of information from one's environment.

Regardless of the strong relationship among violence exposure and social information processing, some adolescents exposed to community violence appear

resilient as evidenced by them possessing grand amounts of unsuitable behaviors and psychological functioning which may elevate situations where being exposed to violence may lead to negative results (Hanson et al., 2008). It has been suggested that gender, may be an important factor in explaining differential outcomes, resulting from community violence exposure (Hanson et al., 2008). A host of studies report gender differences that exist in both community violence exposure and socially processing clues in one's environment (Bradshaw et al., 2009; Breslau & Anthony, 2007; Calvete & Orue, 2012; Stein, Jaycox, Kataoka, Rhodes, & Vestal, 2003; Ziv, 2012).

In as much, evidence point out that there is a possibility that gender may play a part in the types and symptoms of violence exposure that is disclosed (Hanson et al., 2008). Rather, than conclude that males are not affected by their exposure to violence, it is likely that general differences among gender result in how violence is reported. Females have shown to display and report internalizing symptoms such as being depressed and anxious whereas, males often display and report externalizing symptoms which include acting aggressive, which may explain the difference of social processing of environmental clues (Arsenio et al., 2009; Bradshaw et al., 2009). The current studies attempted to investigate whether there is a factor in moderating the relationship between community violence exposure and social information processing, which is likely to be supported based on similar previous research findings (Hanson et al., 2008; Rah & Parker, 2008).

A qualitative study conducted by Yonas, O'Campo, Burke, Peak, and Gielen (2005) discovered different motives for violent behavior among males and females

adolescents. Further, the findings revealed violence among urban male youth (i.e., fighting) was associated with issues that included drug peddling and usage, alcohol consumption, and money. However, violent incidents among urban female youth were initiated by gossip. The most common explanation for violence among both male and female youth includes "idle time", being disrespected, gang participation, witnessing violence, and environment (Carlson & Slovak, 2007; Kelly, 2010; Whitney et al., 2010; Yonas et al., 2005).

Environmental Causes of Violence

A wealth of literature provides evidence of a strong correlation between environmental factors, which include exposure to crime, illegal drugs, living in poverty, poor family functioning, unplanned pregnancy, child abuse and neglect, and violence perpetration (Bradshaw et al., 2009; Brewer, 2007; Farrell et al., 2008; Lambert, Ialongo, Boyd, & Cooley, 2005; Ma'ayan, 2010; Moore, Glenmullen, & Furberg, 2010; Nabors, 2010). Prior research studies are replete with evidence of a positive correlation between environmental factors, such as community violence exposure, social rejection, and social-cognitive factors (i.e., general knowledge structures and social information processing) and antisocial behavior and aggression (Baker, Jacobson, Raine, Lozano, & Bezdjian, 2007; Bradshaw, 2004).

According to Allwood & Bell (2008, p. 990) "in a study of more than 3,700 high school students, violence exposure accounted for 22% and 26% of the variance in violent behavior for females and males, respectively". This contribution significantly outweighed demographic variables, which included the race and ethnicity of the youth,

the educational level of the child's parents, and the dynamics of the family, whereas, justification included 1% of the display of aggression following the determination of being exposed to violence (Allwood & Bell, 2008).

Biased social information processing among individuals is influenced by a variety of factors from socioeconomic factors to other outside contributing factors, such as influences from the behaviors of others. The definition of the hostile attribution bias is a propensity to view others' actions as a cause for retaliation (Dodge et al., 2006). The hostile attribution bias occurs when an individual perceives ambiguous actions by others as aggressive (Dodge et al., 2006; Helfritz- Sinville & Stanford, 2014). For example, a child walking down a school hallway is bumped by another child. The child believes the other child bumped him on purpose and as a result feels the need to defend himself. This combined with pressures from family or others (group) to aggress, clarify recent theory regarding the impact environmental factors have on social information processing (Bradshaw et al., 2009; Brewer, 2007).

Hostile attribution bias can trigger psychological processes, which cause an individual to process events in the environment as hostile, resulting in aggression (Dodge et al., 2006). Those with a hostile attribution bias are more likely to have suffered abuse during childhood (Halligan, Cooper, Healy & Murray, 2007). Perpetrators of violence almost always suffered abuse during childhood that was connected to the desire for power and control of a caregiver or other adult (Blumenthal, 2000). Perpetrators who commit violent crimes almost always have been a victim of child abuse or neglect themselves, experienced or witnessed violence as a child, or have been abused by

someone who had care, custody, or control over them, or another adults' desire for power and control (Kimonis et al., 2010).

Children who are abused have a three-times higher risk of becoming an aggressive adult and developing a hostile attribution bias (likely interpreting situations as abuse, resulting in a need to protect oneself, which results in the display of violent behavior), despite other variables such as demographic and genetic influences (Dodge et al., 2006; Temcheff et al., 2008; Vandenberg and Marsh, 2009). The loss of control from being abused as a child frequently leads to adult, control-seeking behaviors. This creates an occurrence of a cycle of violence. When one's control is lost in the hands of another, the individual seeks to gain back their control by taking away control from another. Violence does not signify love and affection, which result in shame and humiliation (Flannery et al., 2006). Victims of violence are also influenced to humiliate others and participate in other serious violent activities, as in school bullying (Flannery et al., 2006).

There is supportive evidence suggesting that youth living in socioeconomic disadvantage communities and high rates of violence are prone to bias social information processing and aggression (Arsenio et al., 2009; Thomas, Bierman, & The Conduct Problems Prevention Research Group, 2006). In fact, aggression and violence, as an outcome of social and economic conditions, is evidenced by the representation of African American youth who are members of low income families as victims and perpetrators of violence (Arsenio et al., 2009; Vazsonyi & Keiley, 2007). According to Foster and Brooks-Gunn (2009), environment shapes behavior. The school social environment greatly affects behavior during the adolescent stage of development. The influence of

peers is at this point in development, due to the increased need to be accepted (Mancini, Fruggeri, & Panari, 2006).

Adolescent aggression is associated with violence exposure, affiliation with deviant peers, or being a victim of crime (Alomosh, 2009; Green, Choi, & Kane, 2010; Kullberg, Karlsson, Timpka, & Lindqvist, 2009; Shalev, 2011). Lambert et al. (2005) reported behavior problems among youth has a strong tie with involvement with delinquent peer and family functioning, resulting in a high rate of violence exposure. Youth who are involved with peers who present negative behavior, their chances of presenting similar behaviors increases. Research further asserts, adolescents who have an increase chance of being exposed to violence within their community, having peers that possess deviant behaviors possibly increase their risk of exposure (Lambert et al., 2005).

Effects Associated With Violence Exposure

Numerous studies conclude that the effects of violence exposure are best viewed alongside other effects, not as a single entity (Bradshaw, Brennan, & Sawyer, 2008; Giegling et al., 2007; Phillips, 2006; Reif et al., 2007). There is a complex relationship between the environment, biology and structure of the brain, and genetics. The importance in understanding this complex relationship is to promote awareness of the cycle of violence. Influences on humans towards aggression and violent behavior may be due to long term effects of the exposure to violence, either as victims, spectators, or offenders (Aslund, Starrin, Leppert, & Nilsson, 2009; Moylan et al., 2010; Murrell, Christoff, & Henning, 2007). The effects of violence exposure cannot be considered only

within the parameters of thought and behavior. The next observable category of violence exposure effects is psychological effects.

Psychological Effects of Violence Exposure

Mental health problems, such as anxiety, panic, and posttraumatic stress disorder (PTSD) are commonly seen as effects of violence exposure (Allwood & Bell, 2008; Ozkol, Zucker, & Spinazzola, 2011; Scott & Weems, 2010). And it seems unlikely that psychological effects would be present without there also being some apparent behavioral issues present. Psychological issues can develop because of effects of exposure to community violence. Violence exposure has also been associated with self-esteem problems, disorganized thinking, and attachment disorders (Busch & Lieberman, 2010; Reinemann & Teeter-Ellison, 2008; Salzinger et al., 2008). PTSD has been shown to be associated with aggressive behavior and to also correlate with violence exposure and perpetration (Tull et al., 2007; Vandenberg & Marsh, 2009).

The deficiency of self-esteem derives from the results of being humiliated by others, resulting in an inability to form close relationships and may result in psychological stress or disorders (Madge et al., 2001). Psychological stress may further impair the immune system (Lewitus & Schwartz, 2009; Li et al., 2011). Stress-induced or not, the alteration of the normal neurotransmitters dopamine and norepinephrine regulation can build symptoms of depression, psychosis and hyperactivity resulting in decreased attention (Robinson, 2007). Decreased blood flow in the vermis affecting the limbic system has been evident in people with a history of trauma and psychological problems (Carrion et al., 2009).

Abnormalities in the brain associated with exposure to violence have been associated with various disorders, including schizophrenia, manic depression, autism, and hyperactivity disorder or attention deficit disorder (Ardino, 2012). This also indicates how the personality disorder such as, posttraumatic stress disorder (PTSD) and antisocial behavior may emerge (Krause, Kaltman, Goodman, & Dutton, 2008; Wilson, Stover, & Berkowitz, 2009). Because of the human's innate predisposition to form relationships, the inability to do so causes further shame (Wilson, Stover, & Berkowitz, 2009). Due to feelings of shame, humans sometimes have destructive thoughts directed at harming other human beings (Dost & Yagmurlu, 2008).

Children who fail to develop healthy attachments show disorganized reactions to caregivers (Rutter, Kreppner, & Sonuga-Barke, 2009). Some children show aggression toward parents when separated for short periods (Blumenthal, 2000). Other children, in violent or less affectionate families, are not able to demonstrate empathy toward others (Flight & Forth, 2007; Laporte, Jiang, Pepler, & Chamberland, 2011). Abuse early in life can result in a passive breakdown of the process of creating human attachment (Hibel, Granger, Blair, & Cox, 2009; Rutter et al., 2009). Youth who experienced attachment disorder later showed deficits in affection and social cognitive processes, which are important in building peer relationships at school leading to feelings of isolation and rejection by peers (Blumenthal, 2000; Sheridan et al., 2010).

Over time, this attachment disorder is correlated to adult's propensity to disavow others as individuals (Bifulco et al., 2006). Child abuse can lead to a breakdown of the process of creating human attachment in adolescents or later in adults due to unsuccessful

attempts at attachment (Bifulco, et al., 2006). Anger is manifested in children when there is a perceived loss of an attachment figure (Leerkes, Parade, & Gudmundson, 2011).

Effects of Violence Exposure on Behavior

Many negative behaviors have been identified among youth living in violent communities, such as, aggression and rule-breaking (Nelson & Trainor, 2007). It is worth mentioning that behaviors influenced by violence begin as early as infancy (Hibel et al., 2009). Abused and mistreated infants respond with aggression, and as youth, they tend to behave aggressively toward other youth, even if the other child is not acting aggressively (Reid & Sullivan, 2009; Zagar, Busch, Grove, Hughes, & Arbit, 2009). Miczek et al. (2007) explain aggression as an adaptive response to violence in the past.

As individuals grow from infancy to school age, they are heavily affected by the environment of violence. Abused preschoolers are aggressive toward their peers (Domenech-Llaberia, et al., 2008; Feigelman, et al., 2009). Beyond the influence of psychological states on physiological function, community violence exposure has been shown to contribute to stress, which predisposes an individual to develop poor health habits, such as, poor diet, lack of sleep, drug usage, alcohol consumption, or poor physical and mental health, placing people at risk of developing depression, anxiety, or suicide risks (Cammack et al., 2011; Cooley- Strickland et al, 2009; Koposov & Ruchkin, 2011; Nurius et al., 2009; Woodson, Hives, & Sanders-Phillips, 2010). These behaviors have consequences, such as, affecting one's cardiovascular, immune, and endocrine systems (Dalen et al., 2010; McGirr, et al., 2010; Waldron et al., 2010).

Theoretical Foundation of Youth Violence Exposure

The pertinent theoretical frameworks on which this study's hypotheses are based are discussed in this section. Bandura's (1986) Social cognitive theory will be reviewed in hopes of clarifying the relationship between social information processing and exposure to community violence which can result in aggressive outcomes. Furthermore, Bronfenbrenner's developmental-ecological theory will also be reviewed as a means of addressing the environment's impact on behavior (Bronfenbrenner, 1979).

Social Cognitive Theory

Social cognitive theory (SCT) is currently part of a theoretical foundation in the behavioral and social disciplines and suggests that one acquire knowledge from their social environment and a great part of what is learned is from observing one's surroundings. SCT rests on employing the philosophy of socialization, as well as, variables relating to cognitive attributes (Bandura, 1986; Bandura, 1989). The theoretical paradigm of the social cognitive theory is comprehensive, explaining human behavior as chiefly originated from vicarious learning including factors of a personal nature, environment, and behavior, which have been emphasized in academic investigations associated with violence (Bandura, 1989; Bushman & Huesman, 2006).

Vicarious learning is also known as observational learning. The process of vicarious learning involves a person observing the behavior of another person and its aftermath (Ormrod, 2008). For instance, if violent behavior is displayed, there is an increased likelihood that the observer will imitate that particular behavior. This type of learning creates awareness of one's environment and teaches social interaction (Ormrod,

2008). SCT emphasizes that factors in relations to personal, behavior outcome, and the environment of a person all are influenced by the other such as each push and pull on the other causing a chain reaction to occur.

For example, in order for a person to continue to function within their environment there must be growth of continuous interaction taking place between cognitive, behavioral, and contextual factors. Another example include, learning in a classroom atmosphere is influenced by what takes place in the academic environment, specifically if one is highly influenced by other individuals behavior. On the same note, what affect an individual learning is their own thought processes, attitudes, beliefs, and their view of the classroom dynamics and its effects (Denler, Wolters, & Benzon, 2012).

Akers, Krohn, Lanza-Kaduce, & Radosevich (1979) tests on the theoretical constructs of social behavior concluded the primary learning mechanism in social behavior is operant (instrumental) conditioning whereas, behavior is shaped by the stimuli which follow, or are consequences of the behavior. Operant conditioning is a process where an individual learns through positive and negative reinforcement. This type of learning occurs when a sudden episode of impulsive behavior is either reinforced by a reward or discouraged by punishment (Skinner, 1950). B. F. Skinner (1938) invented the phrase operant conditioning, which is described as behavior altering whereas, a person receives reinforcement that is delivered to the individual after the desired response is received. Operant conditioning involves three kinds of operant or responses that usually follow behavior responses (Skinner, 1950).

According to McLeod (2007) the three kinds of operant or responses are neutral operant (environmental responses that lack an increase or decrease in the likelihood of a behavior being repeated), reinforcers (environmental responses that produce an increased chance of a behavior being repeated: there are both positive and negative reinforcers), and punishers (environmental responses that produce a decrease probability of a behavior being repeated: punishment diminishes negative behavior). For example, for an adolescent male who tried drinking alcohol on school property and the main consequence was getting accepted into the in crowd, the male would receive positive reinforcement (i.e., rewarded) and would likely repeat the behavior of drinking alcohol on school property.

If on the other hand, the principle consequence was that if caught drinking alcohol on school property resulted in getting after school detention, parental involvement, and suspended or expelled from school, the male youth would have certainly have received punishment and thus would be less likely to drink alcohol. Direct conditioning and modeling others' behavior are two mechanisms that shape social behavior (Akers et al., 1979). Previous research tested the social cognitive theory's theoretical constructs in research involving the observation of parent and peer aggression and its affiliation to dating and delinquency-associated violence (Brendgen, Vitaro, Tremblay, & Wanner, 2002). Research study results reinforce Bandura's social cognitive theory reporting that SCT behavioral results are situational among people, while prior conditions (i.e., parental and peer involvement) are predictors of aggressive behavior (Brendgen et al., 2002). Recent research asserts Bandura's social cognitive learning model highlights

observational learning, such as in homes and among peer groups relating to aggressive behavior (Card, 2011).

McMahon et al. (2009) furnished an analysis of the contributing factors connected with youth aggression through evaluation of the Social Cognitive Theory process. This investigative study report that when a person is repeatedly exposed to community violence it influences an enhance belief in solving conflicts with retaliation thus lead them to adapt aggressive behavior, leading to the development of lack of self- control and efficacy to prevent the display of aggressive behavior for problem solving (McMahon et al., 2009). Card (2011) inspected the constructs of the social cognitive theory, and it relevance to aggression. Research found the mechanisms by which risk factors (i.e., community violence exposure, exposure to aggression) translate into aggressive behavior operate through the emergence of social cognitions supporting aggression (Card, 2011).

Bandura's social cognition theory asserts that prior socializing experiences in the home, with peers, and/or from media exposure contribute to cognitions that either discourage or support aggressive behavior, which in turn, lead to nonaggressive or aggressive behavior (Card, 2011). The social cognitive theory is significant to this research in that it hypothesizes a relationship should exist between exposure to community violence and aggression (Bradshaw et al., 2009; Felix & McMahon, 2007; McMahon et al., 2009).

This current research benefits from adopting the social cognitive model because social cognitive theory is the study of how individuals cognitively construct their social experiences. Constructivism is a principle of learning and a method that describes how

individuals create meaning of the world by way of a string of individual constructs (Gopnik & Wellman, 2012). This learning process allows an individual to gain first-hand experiences of their environment, in so doing the person gains dependable, truthful knowledge. Afterwards, the individual is expected to act upon the environment to both obtain and exam the acquired knowledge (Gopnik & Wellman, 2012). Social cognitive theory explains how individuals perceive themselves, and others, interpret the meaning behind others behaviors, generate possible solutions to social problems, and choose behavioral responses to social problems, which aid in, answering this study's research questions (Gannon, 2009).

Social-Ecological Theory

Social-ecological theory has been a widely used model among minority communities aiding in the comprehension of the origin of violence perpetration (Society for Public Health Education, 2006). Dahlberg, Mercy, Zwi, and Lozano (2002) assessed the theoretical constructs of social-ecological theory and its significance to the plague of violence. Bronfenbrenner (1979), founder of the social-ecological theory, postulated that in order to understand human development, one must consider the overall ecological system from development and its production of growth (Bronfenbrenner, 1979; Raneri & Wiemann, 2007). This system contains five social subsystems (microsystem, mesosystem, exosystem, macrosystem, chronosystem) that aid and influence human development (Bronfenbrenner, 1994). All of these individual systems is contingent upon the aspects of the life of a person, as well as, promoting a continual increase in the enhancement of a variety of choices and developmental outcomes among people.

In as much, among the five subsystem they each assert influences on the other. Each system has influencing mechanisms on the other system in two directions suggesting a person's life is influenced by multiple sources or directions, where the person influences the system and the system influence them as well (Brofenbrenner, 1979).

For example, kids influence their peers' behaviors, but are also influenced by their peers' behavior as well. The principles of the social-ecological theory provide a useful framework that aid in understanding the influence of environmental factors at multiple levels (e.g., family, school, nation, individual, dyad, peer, community, and social system) that shape a person's behavior (Raneri & Wiemann, 2007).

The primary principle of the social-ecological framework highlights each system functions within the operation of another system (Brofenbrenner, 1979; Cunradi, 2010; Raneri & Wiemann, 2007). The social-ecological theory is used to help explain how a child who has been exposed to violence would themselves become violent by looking at the environmental factors and external influences that contribute to positive or negative outcomes in children (Ahuja, 2013). The benefits of this model is that it incorporates the youth's school, family, community and culture to aid in gaining a greater understanding of all the factors that could contribute to aggressive behavior (Ahuja, 2013).

A developmental- ecological model was applied to a research study involving inner city African American and Latino youth residing in depressed communities to assess violence concurrence (Brady, Tolan, Gorman-Smith, & Henry, 2003). The study's examination of the theoretical constructs implied there is a proven association linking the effects of community attributes (i.e., level of crime) and the probability of adolescents

participating in violent activities (Brady et al., 2003). According to Dahlberg (2002), it has been hypothesized that due to violence's convoluted nature, four elements affiliated with aggressive behavior including societal, community, individual, and relationship must be understood in order to examine not only the interrelationship among the four elements, but also the nature of this public health plague. Therefore, future recommendations for further scholarly investigation utilizing the social-ecological model and it connection to youth violence are warranted to further research the complex nature of this health behavior paradigm.

The social-ecological theory is significant to this research in that it aids in understanding the connection between the influence of community characteristics (i.e., violence exposure, levels of crime) and the probability of adolescents displaying aggressive or violent behavior (Dubow, Huesmann, & Boxer, 2009).

Research Methodologies Used in Community Violence Exposure and Aggression Studies

This current research benefits from adopting the social cognitive model because the social cognitive theory is the study of how individuals cognitively construct their social experiences. Cantrell (2011) asserts a research design delivers a complete strategy for answering research questions and hypotheses. It addresses strategies that aid the researcher in collecting unbiased, precise, and explicable information (Polit and Beck, 2007). Consistent with the majority of prior studies, this study's purpose was to examine the effects community violence exposure has on aggressive behavior using a quantitative approach.

When using a quantitative approach in research, two or more variables are required, and an association between them must exist (Christensen, Johnson, & Turner, 2011). Previous research tested the social cognitive theory's theoretical constructs in research involving the observation of parent and peer aggression and its affiliation to dating and delinquency-associated violence utilizing a quantitative approach. Recent research asserts Bandura's social cognitive learning model highlights observational learning, such as in homes and among peer groups relating to aggressive behavior (Card, 2011).

Bradshaw and colleagues' research findings utilized a quantitative method to explore gender as a moderator between social information processing and violence exposure as well as investigating whether it mediates the association between the two variables on adolescent participants that reside in the suburbs by way of responding to vignettes and surveys (Bradshaw et al., 2009). Comparable, Guerra, Huesmann, & Spindler (2003) designed a quantitative method causal study that successfully provide findings of urban youth that suggest observing violence within one's community create bias social information processing and aggression among youth by two methods which includes imitating violent acts and social cognition growth (Guerra et al., 2003). In the research of urban African American youth, McMahon and colleagues' findings noted that being exposed to violence causes youth to develop the need to retaliate against others by displaying aggressive behavior to solve social problems that arise, leading to a lack of self-control which promote the display of unwanted behavior and the development of faulty social information processing, leading to an increase in aggression behavior and

biased processing of information, deriving from research of a quantitative nature (McMahon et al., 2009).

In the assessment of incarcerated adolescents, relationship between exposure to community violence and social information processing, researchers utilized quantitative data to substantiate the findings in this phenomenon (Shahinfar, Kupersmidt, & Matza, 2001). In addition, a study involving urban youth utilized a quantitative inquiry for effective assessment of an association between aggressive behavior and the way that individuals interpret potentially conflicting social situations, or their social information processing style among this population via vignettes and surveys (Goldweber, Bradshaw, Goodman, Monahan, & Cooley-Strickland, 2011). According to Bradshaw et al. (2009) community violence exposure relationship to aggressive behavior among youth has mainly been researched using a quantitative approach.

Another study investigating community violence exposure effects on social information processing and adolescent behavior provided a quantitative method approach to research. This study's findings indicated that surveys were important to the focus of school-aged adolescents and school associated variables in the determination of adolescents' overall well-being and academic achievement (Kliewer et al., 2011).

This study's literature provides the theory and ground for the collection of data and research inquiry. The literature embodied numerous research data and narrative to determine community violence exposures effects on behavior among youth. In conclusion, it is presumed this research study has furnished the framework for the

investigation of gender as a moderator of the relationship between social information processing and violence exposure which will be further discussed in Chapter 3.

Summary

A wealth of literature provides evidence that the causes of violence fall into the category of the social environment (Brewer, 2007; Bronfenbrenner, 1994; Chen, 2010; Critchfield, Levy, Clarkin, & Kernberg, 2008; DiLalla, Elam, & Smolen, 2009; Foster & Brooks-Gunn, 2009; Phillips, 2006; Tull et al., 2007). Social demographic factors play a great role in contributing to violent behavior. A youth born and reared in poverty stricken communities, part of a minority group, or part of a family with a low socioeconomic status, chance of displaying violent behavior is increased (Brewer, 2007; Edleson, Shin, & Johnson- Armendariz, 2007; Evans, Ehlers, Mezey, & Clark, 2007; Fang, 2007; Gauthier, 2003; Reif et al., 2007; Reiss & Roth, 1993). Demographic factors influence the onset of some psychological issues which can lead to bias social information processing and violent behavior. Community violence exposure has been shown to have a strong correlation to bias social information processing the display of violent behavior (Farrell et al., 2008; Reif et al., 2007).

Community violence exposure, such as witnessing or experiencing bullying, fighting, and the display of aggressive behavior of others leads to the development of the hostile attribution bias which is a propensity to view others' actions as a cause for retaliation (Bradshaw et al., 2009; Halligan et al., 2007). The hostile attribution bias, joined with stress from family and others to aggress, explain the relationship that exists between the two variables including community violence exposure and aggressive

behavior (Brewer, 2007). The hostile attribution bias can initiate psychological issues, which cause an, individual to process events in the environment as hostile, resulting in aggression.

Youth exposed to community violence can see such behavior as normal. Students who view violence as normal tend to commit violent acts in school. There is evidence that adolescent aggression is associated with community violence exposure (Lambert et al., 2005; Okour & Hijazi, 2009; Su et al., 2010). Numerous research reports youth who have been exposed to violence within their communities has been shown to develop emotional and behavioral problems, as well as maladaptive functioning including anxiety, depression, posttraumatic stress disorder, academic failure, and the display of aggressive behavior (Graham, Christian, & Kiecolt- Glaser, 2006; Heide & Solomon, 2006; Lambert et al., 2005; Loukas, Prelow, Suizzo, & Allua, 2008; Smokowski, Bacallao, & Buchanan, 2009).

Numerous research studies provide evidence that community violence exposure impacts adolescents' social information processing and behavior, resulting in a variety of aggressive behaviors such as, homicidal violence, assault, and school and gang violence (Bluthenthal, 2000; Centers for Disease Control, 2011; Centers for Disease Control, 2012; Klein, 2009; Parker et al., 2007; Stickle, Kirkpatrick, & Brush, 2009; Young et al., 2009). The social-cognitive theory (Bandura, 1989; Bushman & Huesman, 2006) and the social-ecological theory (Dubow et al., 2009) are two theoretical constructs, which have proven useful in studies that examine the relationship between community violence exposure and the display of aggressive behavior among youth. Both theoretical constructs

hypothesize that observation, imitation, and modeling of violent behavior are the hallmark in explaining the complex relationship that exists between community violence exposure and social information processing which can lead to aggressive behavior (Akers et al., 1979; Bandura, 1986; Dubow et al., 2009).

Despite the tight relationship that exists among violence exposure and social information professing, some adolescents exposed to community violence appear resilient as evidenced by them possessing elevated levels of abilities to transform their behavior in certain situations and psychological functioning which may remove obstacles that promote negative results when exposed to violence (Hanson et al., 2008). Researchers have indicated that gender may be an important factor in explaining differential outcomes, resulting from community violence exposure (Hanson et al., 2008). A host of studies report gender differences that exist in both community violence exposure and socially processing clues in one's environment (Bradshaw et al., 2009; Breslau & Anthony, 2007; Stein et al., 2003). Further, literature suggest that gender differences might be responsible for the reporting of certain kinds of symptoms after being exposed to violence (Hanson et al., 2008).

This literature review furnishes the foundation and rationale for the collection of data and analysis. The research study's methods and the measurement tools selected for the collection of data will be discussed in Chapter 3. A concurrent correlational research approach using bivariate, descriptive and moderational analyses examining community violence exposure effect on adolescent social information processing will be discussed in Chapter 3. Lastly, a detailed description of the study's design, sample population and

participant recruitment, instrumentation and procedures, analysis of data, and ethical considerations is addressed in Chapter 3.

Chapter 3: Research Method

Introduction

The purpose of this study was to determine whether community violence exposure is associated with youth social information processing of aggressive response. This study further evaluated whether social information processing—specifically hostile attribution bias, aggressive response generation, and justification of aggression responses to threat—and its relationship to violence exposure is moderated by gender. Moreover, this research inquiry addressed whether a difference exists between male and female youths' reports of violence exposure.

This chapter contains a detailed description of this research methodology and how it was used to answer the study's research questions and hypotheses. A synopsis of the study's design highlights the reasons why the research design was chosen. This exploratory research used quantitative data (surveys and vignettes) to investigate community violence exposure's effects on social information processing of aggressive outcome and whether gender moderates this association. A description of the sample characteristics and size is presented, along with the instruments used in this study. This chapter addresses the quantitative method of inquiry, including the research design, sampling strategy, procedures surrounding the collection of data, data analysis, and steps taken to protect the rights of participants.

Research Design

A quantitative design using a concurrent correlational approach was applied to investigate whether community violence exposure is associated with social information

processing and whether social information processing—specifically hostile attribution bias, aggressive response generation, and justification of aggression responses to threat—is moderated by gender. This research design was appropriate for this study because it allowed for the examination of the relationship that exists between community violence exposure and social information processing of aggressive responses. The significance in using the quantitative approach for this study was it allowed for the measurement of data and statistical analysis of a body of numerical data. According to Creswell (2009), information is observed and measured numerically in the quantitative approach, enabling reliable and valid measurement of data. An unbiased approach must be used to obtain accurate information and determine cause and effect because biases can cause skewed results (Creswell, 2009). This method of inquiry helps to prevent biases from occurring. It was expected that using this research approach would aid in effectively answering the research questions.

The correlational approach was appropriate for this study because it is a quantitative design used in research to determine if there is a correlation (or covariation) between two variables such as community violence exposure and social information processing of aggressive responses and differences between males and females' reporting of exposure to community violence. This approach allowed for determining whether a relationship exists between community violence exposure and social information processing of aggressive responses, whether gender moderates the relationship between community violence exposure and social information processing, and whether differences exist between males' and females' reporting of exposure to community violence. The

collection of data by way of field administration of surveys, questionnaires, and vignettes is an established approach to inquiries such as this study. Both the quantitative design and correlational approach further assisted in determining whether there is a connection between community violence exposure and social information processing among youth. This information may assist the staff of violence prevention programs within schools and communities.

Methodology

Sampling and Sampling Procedures

Population/sample. The target population whose members I recruited for this study consisted of males and females 18 years of age from different ethnic groups who reside in the Midwestern states. After identification of prospective participants, the youth provided assent/consent for participation in the study. All participation was voluntary. The prospective participants who agreed to participate in the research study were required to fill out attached questionnaires. These questionnaires included a demographic form, the Things I Have Seen and Heard Scale (Richters & Martinez, 1990), and vignettes (Crick & Dodge, 1994). The adolescent participants' completed questionnaires were submitted directly to me. Thereafter, the participants' responses on the questionnaires were tabulated and prepared for this quantitative research study analysis. Statistical Package for Social Sciences (SPSS version 21.0) was used for all essential statistical analyses.

Setting/sampling procedures. This study used a nonexperimental approach. I used SurveyMonkey to recruit participants for this study. SurveyMonkey is a popular tool

that is used worldwide to help businesses, students, researchers, and other individuals with research by way of online surveys. What makes SurveyMonkey so unique and readily used by many is the services it provides such as surveys, polls, questionnaires, customer feedback and, market research, through which it makes it easy to distribute materials to one's chosen population. This method also offered me the opportunity to gain a host of qualified and diverse participants to take part in this research study. SurveyMonkey offered access to many qualified participants from different ethnic groups, such as European American, African American, Asian, and Hispanic American. I asked SurveyMonkey to target equal numbers of individuals from different ethnic groups when invitations were sent to potential participants. Participants were recruited using a convenience sampling technique.

This population was readily available and convenient, as well as suitable for answering this study's research questions, and the data gathered from this population may promote social change by aiding the staff of programs designed to prevent the spread of youth violence within schools and communities. In a prior study on this topic, Bradshaw et al. (2009) acknowledged the limitation of lacking a diverse sample of participants and recommended replication of their study. It was necessary to use a diverse sample in order to gain a full understanding of the effects of community violence exposure on adolescent social information processing and behavior, overall social adjustment, and functioning (Bradshaw et al., 2009).

A minimum sample of 160 participants was obtained. To determine the appropriate effect and sample size for this study, a G-Power 3.1 power analysis was used

(Faul, Erdfelder, Lang, & Buchner, 2007). The sample size was determined based on a power of .80 and an alpha of .05 using an estimated medium effect size. Furnham and Fudge (2008) and Conte and Gintoft (2005) both used G-Power 3.1 analysis to determine their studies' effect and sample size. In their studies, effect sizes were projected based on a linear multiple regression fixed model R^2. Furnham and Fudge reported an effect size f^2 = 0.0989011 by using a partial R^2 of .09, yielding a sample size of 160. Conte and Gintoft determined a partial R^2 of .13, which yielded an effect size f^2 = 0.1494253; as a result, their study had a sample size of 107. Both Furnham and Fudge's and Conte and Gintoft's sample size range was 107-160, which led to a recommended sample size of 160. The effect size was based on stepwise linear regression analysis, which is used to measure the strength of a phenomenon (Faul et al., 2007).

Data Collection and Instrumentation

Data collection was organized through three separate instruments: a demographic questionnaire form, The Things I Have Seen and Heard Scale, and vignettes. Each of these instruments provided information on potential participants' demographic characteristics, violence exposure, perceptions of social situations, hostility rating, and aggressive response to threat.

Demographic Questionnaire Form

A demographic questionnaire form was used to assess the diversity of the sample. The demographic questionnaire asked the respondent's age, educational level, gender, and ethnicity. The demographic questionnaire is included in Appendix A.

The Things I Have Seen and Heard Scale

The Things I Have Seen and Heard Scale (TISH) is a 10 item self-report questionnaire designed by Richters and Martinez (1990) which has been shown to be effective in assessing youth exposure to violence during their entire life. The participants that participated within this study were asked to report their violence exposure by using a number to determined how often they have witnessed different types of crimes and violence, for example, mild violence exposure (e.g., seeing someone get arrested; seeing drug deals) or serious violence exposure (e.g., seeing a stabbing; seeing someone get shot) on a 4-point Likert scale (0 = never, 1 = once or twice, 2 = a few times, and 3 = many times). The participants were also asked not to include violence or crime exposure through media channels, such as in the movies, video games, and television. The responses were scored by computing a total exposure score by summing the 0-3 frequency ratings across all 10 items (Bradshaw et al, 2009; Richters & Martinez, 1990) with higher scores reflecting greater exposure to violence. A mild violence exposure score were computed by summing the frequency ratings across 5 items and the serious violence exposure score frequency ratings were summed across the remaining items on The Things I Have Seen and Heard Scale (Bradshaw et al., 2009). The Things I Have Seen and Heard Scale is included in Appendix B.

Validity of the Things I Have Seen and Heard Scale

The TISH (Richters & Martinez, 1990) has proven to be effective because it produced an internal consistency that is relatively powerful, with Cronbach's alpha α =

.76. In addition to this, the reliability outcome is proven high based on a sturdy test-retest (r- .67) and the findings of-rater reliability (r= .81).

Vignettes

The vignettes on social information processing were developed by Crick and Dodge (1994**).** The vignettes are presented in the same order so there was no order effects. These vignettes are designed to describe the way youth perceive ambiguous social situations and interactions, how youth view others' intentions and motives, and youth's decision making responses when placed in problematic situations. The vignettes are an appropriate instrument for this study because they are used to assess aggressive information processing by including a hostile attribution bias, aggressive response generation, and justification of aggression responses to threat. Permission to use the vignettes was granted by Dodge and Frame (1982). The vignettes are included in Appendix C.

The participants read four vignettes. After reading each vignette the participant then responded to the questions by writing short sentences explaining what they believe to be a peer's intent and a likely response and then the participants themselves rated that particular vignette before moving to the next one. The determination of the hostile attribution bias was evaluated by the hostility ratings participants inferred in regards to their beliefs of the peer's intents outlined on four vignettes instruments for them to read and give their answers. The hostility rating was rated on a 5- point Likert scale. The participants did the ratings after reading the vignettes, then they responded to questions about the vignettes. In getting the results of the aggressive response generation this was

determined by viewing the hostility level responses reported by the participants' and how they will likely respond in the given situation when addressing the statements and questions on all four vignettes.

The ratings were assessed as well on a 5- point Likert scale. In evaluating the scores of the justification of aggression this was done by one item outlining what the participants believed to be legitimate or appropriate of aggressive ways to respond to threat. The participants' responses given on a 5-point Likert scale rate whether or not they concur with the remark of whether "It is OK for me to hit someone if they start a fight on my turf". The responses on the vignettes indicated the higher the score the greater the support for aggressive behavior (Bradshaw et al., 2009)

The hypothetical situations was coded into the SPSS electronic data-base. The coding scheme included the three ratings which was summed together producing one score for each item outlined. The same 1 (non- aggressive motives) to 5 (aggressive motives) rating scheme were used to rate participants four responses on the vignettes. The participants' responses outlining their aim and reaction to the statements and questions on the four vignettes were summed, with an outcome of a given score for the hostile attribution bias and an average for the response generation, subsequently (Bradshaw et al., 2009). The vignettes are included in Appendix C.

Validity of Vignettes

Dodge and Frame (1982) designed vignettes that included four scenarios for participants to read and give his or her intrepretation of each. An attempt to assess the validity of the vignettes included using 184 adolescents students ages 14 through 17 years

of age to read from the four vignettes. The student who participated with the study read from four vignettes, where all of them contained ambigous behavior that was diplayed by their peer (i.e., the peer is observed holding the participant's bag ues his or her pencil without permission, spills a drink on the participant, and hits the participants with a ball). Hostile attribution bias, aggressive response generation, and justification of aggression are rated using a 7-point Likert scale assessing the construct validity of the vignettes (Bradshaw et al., 2009).

The studies results included the reports of the participants among each of the four items correctly identified that the greater the scores it is interpreted that an increase in the belief that aggressive behavior is warranted, proving the vignettes were able to correctly depict what it was hypothesized to depict. I designed a response sheet that was distrubed to the participants (Bradshaw et al., 2009). The vignettes have demonstrated relatively reasonable internal consistency, for the hostile attribution bias with a Cronbach's alpha $\alpha = .62$, aggressive response generation $\alpha = .63$, and justification of aggression $\alpha = .85$.

Following the directions of the Walden University IRB, three attempts were made to contact the researchers Richters and Martinez (1990). Telephone calls were made, letters were written, and emails were sent in an attempt to gain permission to use the Things I Have and Heard Scale. The Things I Have Seen and Heard Scale has been used by the following researchers (Bradshaw et al., 2009; Thompson et al., 2007). Which makes the Things I Have Seen and Heard Scale public domain.

Data Analysis

This study used a correlation research design approach using bivariate, descriptive, and moderating analyses including regression. The analyses was conducted to aid in answering the research questions and hypotheses addressed in Chapter 1 of this study.

1. Is there an association between youth exposure to community violence and adolescents' social information processing of aggressive responses?
2. Is there a difference between males and females reports of exposure to community violence?
3. Does gender moderate the relationship between community violence exposure and social information processing?

The following hypotheses will be tested to determine the effect of community violence exposure on functions of adolescents:

$H_0$1**:** There is no association between youth exposed to community violence and adolescents' social information processing of aggressive responses as measured by vignette responses.

H_a1**:** There is an association between youth exposed to community violence and adolescents' social information processing of aggressive responses as measured by vignette responses.

$H_0$2**:** There is no difference between males and females' reports of exposure to community violence as measured by the demographic questionnaire and the Things I Have Seen and Heard Scale?

H_a2**:** There is a difference between males and females' reports of exposure to community violence as measured by the demographic questionnaire and the Things I Have Seen and Heard Scale?

$H_0$3: Gender does not moderate the relationship between community violence exposure and social information processing.

H_a3**:** Gender does moderate the relationship between community violence exposure and social information processing.

All data collected from participants were entered into an electronic data base such as Statistical Package for Social Sciences (SPSS version 21.0). SPSS 21.0 was used for the data analysis. The SPSS 21.0 electronic database appears to be appropriate software to use for analyzing this study's data because it is one of the best structural and interactive database systems available in categorizing quantitative data and distributing reliable results.

Research question #*1* stated is there an association between youth exposed to community violence and adolescents' social information processing of aggressive responses as measured by vignette responses. Pearson product moment correlation was used for research question #*1*. Pearson product moment correlation was used to examine the strength of the relationship between the variables measuring community violence exposure among youth and adolescents' social information processing of aggressive responses as measured by the vignette responses.

Research question 2 asked if there is a difference between males and females' reports of exposure to community violence. Gender is included in the correlational

analysis as it shows the pattern of relationships between the study variables and gender. A t-test for two independent samples was used to determine if differences exist between males and females reporting of exposure to community violence. The t-test for two independent samples was significant in addressing this research question because it allowed for a determination on whether a significant difference exists. Multiple linear regression (MR) was used to investigate research question #3 concerning gender as a moderator of the association between violence exposure and social information processing. MR is appropriate to use because this model allows for the testing of the direct effect between the predictor and outcome variable after the moderator's effect has been removed. If the direct effect of exposure to community violence on social information processing is no longer significant after gender is accounted for, it can be summarized that a significant indirect effect exist (Baron & Kenny, 1986). The social information processing construct was obtained from the average of 3 scores (hostile attribution bias, generated responses, and justification of aggression) on 4 vignettes.

Baron and Kenny (1986) describes a moderator variable as the following: a quantitative variable (e.g. gender) influences which area the variable will move and/or how strong the association that exist among two variables such as the focal independent and a factor (the moderation) which clarifies whether the exercise is accurate. The moderator variables are usually presented with the occurrence of a suddenly poor or unpredictable association among two variables such as the predicator and criterion. The actions of the moderator is that it forms a combination with the predictor variable where

it produces a strong influence on the dependent variables outcome (Baron & Kenny, 1986).

According to Baron and Kenny (1986), "a moderator is a qualitative (e.g., sex, race, class) or quantitative (e.g., level of reward) variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable. Specifically within a correlational analysis framework, a moderator is a third variable that affects the zero-order correlation between two other variables. A moderator effect within a correlational framework may also be said to occur where the direction of the correlation changes. In the more familiar analysis of variance (ANOVA) terms, a basic moderator effect can be represented as an interaction between a focal independent variable and a factor that specifies the appropriate conditions for its operation" (p. 1174).

Descriptive statistics and bivariate analyses reflect results of variables including violence exposure (total, mild, serious), social information processing (hostile attribution bias, response generation, beliefs about aggression), and gender (male-female).

Threats to Validity

Threats to validity were assessed during the study to aid the research design in the attainment of all intended purposes. According to Creswell (2009), internal and external validity should be reported by investigators to draw precise and sufficient inferences regarding the research questions and purpose of the study. Threats to internal validity could potentially be pertinent due to this study use a non-experimental approach. Internal validity refers to the ability to say that one variable caused another to occur. Threats to

external validity are the magnitude to which the results of a research study can be generalized from the study's sample to the population of interest. The factor that threatens this study's external validity will depend on the makeup of the individuals in the sample selection and how the sample was chosen. Take, for example, if the sample consists of only 16- years-old adolescent, white middle class, males with above average intelligence, the results will not be generalizable to a larger population.

Consequently, every effort was made to recruit a diverse sample for the study. The conditions inherent in this study's research design are such that the outcome of the generalizability will be diminished. Another threat to the generalizability of this study is the selection process of the subjects, for example, if the subjects are not selected randomly then the results will not be generalized and can result in selection bias. Threats to statistical conclusion validity are conditions that lead a researcher to reach an incorrect conclusion about a relationship in one's observations.

Two types of errors can be made, such as inflating the Type I error rate, which involves the null hypothesis receiving a rejection when the results of the population is accurate. The second error consists of rather than presenting correctly by rejecting the null hypothesis because of a false status displayed, it is concluded there is no relationship in the population when in fact one does exist. Three factors have been identified as crucial in improving statistical conclusion validity are: (a) good reliability of the utilized instrument, (b) good implementation, and (c) good statistical power (Trochim, 2000). Statistical conclusion validity was addressed in this research study by choosing measures

which have sound psychometric properties, recruiting an adequate sample size based on a power analysis, and rigorous implementation of the chosen surveys.

Ethical Procedures

Participation for this study was voluntary. Prior to administering the survey and vignettes, assent/consent forms were available for the participants to read and their participation within the study is there informed consent. All participants received a demographic form to complete, which asked about their age, gender, educational level, and ethnicity, as this information aids in supporting the research. Participants were informed of their rights to terminate the study at any time and no information identifying them were collected in the study.

Careful attention was given to the nature and possible effects the study may have on the participants. All participants received an informed consent form that included participation modus operandi, confidentiality issues, the risk and benefits of participating in the study, information on rights to withdraw from the study, and instructions on how to make contact with me to ask questions or concerns regarding participation in the study. The guidelines set by Walden University Institutional Review Board were followed to promote safety and security for vulnerable participants in the study.

Assurance was made to the participants that their information will remain confidential and protected. This was accomplished by outlining in the informed consent that all personal records such as the participants' completed surveys, questionnaires, vignettes, and demographic forms will remain confidential. Access to the study data will only be granted to me. Quantitative data resulting from the surveys, questionnaires and

vignettes were coded and electronically stored in a password secured computer. All hardcopy records will be stored safely in a locked numeric safe deposit file container for 5 years. The confidential data will be seared and will no longer exist five years after this study is finished. All participants were informed of their rights to withdraw from the study at any time without their membership with SurveyMonkey being affected.

Although, participants did not receive any physical harm or benefits for participating in this study, there was potential for emotional harm occurring as they reflect on traumatic experiences. To prevent emotional harm from occurring, participants within this research study were told they are not obligated to finish any part of the study which causes discomfort and Mental Health Contact information was shared with participants. Participation in the study is the participants' informed consent as this suggests that the participants agree with and understand the conditions of the study. A request to the Institutional Review Board (IRB) for approval to conduct the research was submitted.

The supervision of Walden's Dissertation committee has applied the university's guide on Ethical Standards of Research. The adolescent participants has exited the study by returning completed questionnaires and vignettes to me by electronically submitting their responses. If participants are interested in receiving the results of the study, once they will become available will be found at https://plus.google.com. Put in the search box Walden University Research to gain the results. The participants and approval to conduct this study was approved by Walden's IRB. The IRB approval number is 04-08-14-0083166

Summary

The aim of this study is to explore whether community violence exposure has a direct effect on social information processing of aggressive responses among youth. This research study's focus is on determining whether social information processing, specifically hostile attribution bias, aggressive response generation, and justification of aggression responses to threat and its relationship between community violence exposure is moderated by gender, and whether there is a difference between male and female reporting of violence exposure. The use of quantitative data such as, surveys and vignettes further clarified these relationships.

A quantitative design using a concurrent correlational approach was used in this study, aiding in the investigation of whether there is an association of community violence exposure and social information processing. The chosen research design is a good fit for this study because it is designed to test whether there is a correlation among relationships such as, community violence exposure and social information processing. The quantitative approach usage in this research study is important because it allows for data measurement and statistical analysis performance of a body of numerical data.

The correlational approach is suitable for this research study due to it being a quantitative research design used in research to assist in investigating whether a correlation (or covariation) among two variables under study exist. This approach allows for determining whether a relationship exists between community violence exposure and social information processing of aggressive responses. This study's data was gathered by way of surveys and vignettes which are recognized methods to research for the analyses

used in this research study. The quantitative design and correlational approach were both chosen for this research study because they allowed for the determination on whether there is an association between community violence exposure and social information processing of aggressive responses.

This study is credible based on the aim of inquiry, prior research, and methodology for data evaluation and interpretation. The chosen population that are suitable in addressing this study's research questions consists of both male and female youth who reside in the Midwestern states. The setting and population are suitable in addressing the research questions because they have a host of qualified participants from different ethnic groups such as European American, African American, Asian, and Hispanic American. The participants chosen for this study filled out questionnaires such as, a demographic form, the Things I Have Seen and Heard Scale (Richters & Martinez, 1990), and vignettes (Crick & Dodge, 1994). These completed questionnaire were returned to me by all participants.

This study obtained a minimum sample of 160 participants which was determined by using G-Power 3.1. The data collection was received from three instruments such as, a demographic questionnaire form, The Things I Have Seen and Heard Scale, and vignettes. These instruments serves to gather information on participants' demographic characteristics, violence exposure, social information processing, hostility rating, and justification of aggressive responses to threat. The demographic questionnaire serves in addressing the diversity of the chosen population.

The Things I Have Seen and Heard Scale (1990) created by Richters and Martinez (1990) is a self-report questionnaire that contains 10 items to help assess youths' exposure to violence over the course of their life. Crick and Dodge (1994) invented vignettes to assess social information processing by including a hostile attribution bias, aggressive response generation, and justification of aggression responses to threat. The four vignettes were read by each participant and they were required to write a concise explanation expressing their interpretation of a peer's intent and a likely response.

The validity and reliability of each instrument was outlined within this quantitative study. The data gather for this study was imputed into the SPSS version 21.0 electronic data base which served to gain the study's results. A Pearson product moment correlation was used to answer research question #1. A t-test for two independent samples was used to address research question # 2, determining whether there is a difference between males and females reporting exposure to community violence. The t-test was significant in addressing this research question because it allowed for a determination on whether a significant difference really exists. Research question #3 was addressed by using a multiple linear regression model concerning gender moderators of the association between community violence exposure and social information processing.

The threats to validity of each instrument was assessed during the study to assist the research design in obtaining its intended purposes. Creswell (2009) reports that both internal and external validity will be reported by the investigator to aid in drawing accurate and sufficient inferences regarding the research questions and the study's purpose. Threats to internal validity are important to note because this study has used a

nonexperimental approach. The threats to external validity is significant to this research study's outcomes because it allowed for the generalization of the study's sample to the population of interests. The chosen sample selection and methods to how the sample was chosen can be factors that affect this study's external validity.

Ethical consideration was included in this study to ensure the safety and security for the participates. The participation for this study was on a voluntary basis. Chosen participants were informed of their rights to terminate taking this study at any time without consequences. Informed consent forms were provided to the adolescent participants before administrating and starting the survey and vignettes. The attention to the nature and possible effects that the study may cause to the participants were thoroughly assessed.

The participants received an informed consent form that included participation modus operandi, confidentiality issues, the risk and benefits of participating in the study, information on rights to withdraw from the study, and instructions on how to make contact with me to ask questions or concerns regarding participation in the study. I followed Walden University Institutional Review Board guidelines as well as, gained permission to conduct this study on the chosen population to ensure safety and security for all participants in the study.

Within this chapter I furnished the research methods for this concurrent correlational study, including research design, methodology (population and sampling and sampling procedures), data collection and instrumentation, data analysis procedures,

research questions, threats to validity, and ethical procedures. This study's results are furnished in Chapter 4.

Chapter 4: Results of Data Analysis

Introduction

The data analysis results are outlined within this chapter. This chapter states the three research questions, and their analysis and findings are explained. A brief summary is given at the end of this chapter. The results of the descriptive and bivariate statistical analyses that were used in addressing the three research questions and testing this study's related hypotheses are presented in this chapter. The results are used to furnish the participants' profile, answer this study's research questions, and test the study's hypotheses. The purpose of this study was to determine whether a relationship exists between exposure to community violence and social information processing of aggressive responses.

This study also evaluated whether gender moderated the relationship between community violence exposure and social information processing, specifically hostile attribution bias, aggressive response generation, and justification of aggression responses to threat. SurveyMonkey sent out a total of 160 surveys to male and female 18-year-old individuals residing in the Midwestern United States, as well as 433 surveys to individuals residing outside the United States. Of the 160 surveys sent to Midwestern U.S. residents, 160 were completed and returned to me at a 100% response rate. The survey responses were then coded and entered into an SPSS electronic database for analysis.

Data Collection

SurveyMonkey was used for data collection. The time frame for data collection was 3 weeks and 5 days. The participants had a week to determine whether they wanted to answer the surveys. There were 89 eligible participants who completed the surveys at the end of Week 1. SurveyMonkey recruited the participants for this research study. There were a total of 618 participants who responded to this study's survey, and out of this total number, only 160 were eligible to participate. The only discrepancy between the actual data collection method and the methods mentioned in Chapter 3 was that in Week 1, SurveyMonkey opened up recruitment to 18-year-old individuals globally rather than only in Midwestern states, which led to the collection of a total of 458 surveys that were ineligible for use within this study. Following data collection, 160 survey responses were eligible and were analyzed for inclusion in this research.

Description of the Sample

Each participant completed a short demographic survey. All participants were 18 years old. The demographic survey responses related to the participants' educational level, gender, and ethnicity are summarized in Table 1.

Demographic Questionnaire

Table 1

Education level, Gender, Ethnicity (N = 160)

Personal characteristic	Frequency	Percent
Education level		
Attending college	64	39.9
High school graduate/GED	7	4.4
High school (unspecified level)	56	35.0
High school senior	30	18.8
Homeschooled	1	0.6
11th grade	2	1.3
Total	160	100.0
Gender		
Female	88	55.0
Male	72	45.0
Total	160	100.0
Ethnicity		
African American/Black	7	4.4
Asian/Pacific	12	7.5
Caucasian/White	125	78.1
Hispanic	14	8.8
Native American	2	1.3
Total	160	100.0

All of the participants (*n* = 160, 100%) indicated that their age was 18 years old. The largest group of participants (*n* = 64, 39.9%) reported attending college as their highest level of education. Seven (4.4%) indicated an education level of high school graduate/GED, while fifty-six (35.0%) indicated high school unspecified. Thirty (18.8%) indicated that they were high school seniors. The remaining participants reported their educational level as 11th grade (*n* = 2, 1.3%) and homeschooled (*n* = 1, .6%). The greatest number of participants (*n* = 88, 55%) reported their gender as female. Seventy-two (45%) participants indicated their gender as male.

The largest ethnic group of participants was reported as Caucasian/White (*n* = 125, 78.1%); Hispanic (*n* = 14, 8.8%) was the second largest ethnic group among participants. Twelve (7.5%) reported Asian/Pacific as their ethnicity, and seven (4.4%) reported African American/Black as their ethnicity.

The Things I Have Seen and Heard Scale

A total exposure score was computed (where the 0-3 frequency ratings were averaged from the 10 items: mean = 4.91), as well as a mild community violence score (the frequency ratings were averaged from five of the items: mean = 4.24; e.g., seeing someone get arrested, seeing drug deals). Last, a serious community violence exposure score was computed (the frequency ratings were average from the last five items; mean = .67; e.g., seeing a stabbing, seeing someone get shot). Table 2 displays the mean frequency ratings of 0 (*never*) to 3 (*many times*), in the far right column, with standard deviations (*SD*) reported in parentheses. (a) indicates the percentage of participants who stated ever witnessing the kinds of violence one or more times. (b) indicates reports of

mild kinds of violence exposure. (c) indicates reports of serious kinds of violence exposure (Bradshaw et al., 2009).

Table 2

The Things I Have Seen and Heard Scale

Violence exposure mean frequency of exposure rating (*SD*)	% witnessing event (a)
Seen someone being beaten up (b) .94(0.84)	66.3
Seen someone being arrested by the police (b) 1.1(0.70)	78.1
Seen drug deals (b) .86(0.94)	53.8
Heard guns being shot (b) 1.2(1.2)	58.7
Seen somebody pull a knife on another (c) .23(0.55)	16.9
Seen gangs in my neighborhood (c) .29(0.67)	20.0
Seen somebody pull a gun on another (c) .06(2.9)	5.1
My house has been broken into (b) .18(0.41)	16.3
Seen someone get stabbed (c) .03(1.6)	2.5
Seen someone get shot or shot at (c) .06(2.9)	5.1

Note. (a) indicates percentage of participants who disclosed ever observing the particular type of violence. (b) indicates mild forms of exposure. (c) indicates serious forms of exposure.

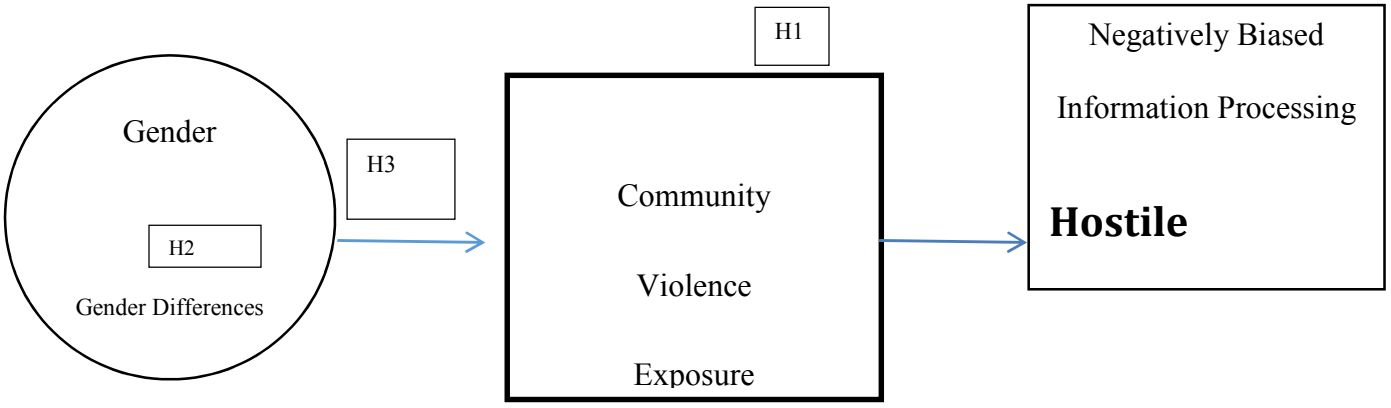

Figure 1. Social information processing construct. The social information processing construct was obtained from the average of three scores (hostile attribution bias, generated responses, and justification of aggression) on four vignettes.

Vignettes

All of the participants received four vignettes to read (see Appendix C). After reading the brief scenarios in the four vignettes, the participants wrote a short sentence giving their beliefs of whether their peer's intent is to harm or not harm them and wrote how they would respond if placed in the given situation. The first part of each vignette was rated by a dummy code of one for non-hostile intents and two for hostile intents. If the participant' suggested in any way that the peer did what he/she did out of spite or their peer did it purposely, the response was coded a (2) for hostile. Any other response resulted in a coding of (1) representing non-hostile. Secondly, the participants were required to rate that particular vignette using a 5-point Likert scale, to indicate how they will respond towards his or her peer.

The scale ranged from *"don't know"* (0), *"nothing"* (1), *"ask why, ask again"* (2), *"command"* (3), *"adult punish"* (4), to *"retaliate"* (5), where low scores are meant

to indicate positive motives and the higher the score greater support for motives for aggression is mandated. The participants chose a number ranging from 0 to 5 on the Likert scale to indicate how they would respond. For example, if a participate choose a dummy code of 2 indicating hostile intents on the part of a peer when explaining what they would do in this situation the participant will report a number from the 6-point Likert scale to show how they will react. If a 0 was indicated this would mean the participant did not know how she would respond; if 5 was chosen this means the participant would retaliate towards his or her peer.

The responses from part B of the vignettes were summed to form the social information processing variable that was analyzed in regard to Research Questions 1 and 3. Responses of 0 (*"don't know"*) and 1 (*"do nothing"*) both indicate the low levels of aggressive intent. After consultation with the author of the test, responses of 0 and 1 were combined into the same response category by recoding 0 responses as 1. The recoding was performed so that the responses would be approximately on an interval scale. This was necessary so that it would be valid to average the responses for each vignette across respondents and to compute a total score for each respondent based upon the responses to the 4 vignettes.

After recoding the Likert scale responses on a 1 to 5 scale, the total scores on each vignette are as follows: vignette 1 mean total score 1.84 (*SD*= 1.03); vignette 2 mean total score 1.44 (*SD*= .837), vignette 3 mean total score 1.73 (*SD*= 1.25), and vignette 4 total mean score 1.29 (*SD*= .772). The study dependent variable of social information

processing was obtained as the sum of all the vignette scores, for which the mean was 6.30 and the standard deviation was 3.84.

Vignette 1

Vignette 1: Part A—Why do you think Todd/Jessica hit you in the back? The largest group of participants (*n* = 133, 83.1%) responded to the question "why do you think Todd/Jessica hit you in back" with a code of 1 representing non-hostile intent on the part of their peer, with (*n* = 27, 16.9%) indicating hostile intents on the part of the peer. This result indicated that a majority of the participants received low scores indicating positive motives (non-hostile intent relative to those who received high scores (hostile intent).

Table 3

*Vignette 1: Part A (*N = *160)*

Why do you think Todd/Jessica hit you in the back?	Frequency	Percent
1 (Non hostile)	133	83.1
2 (Hostile)	27	16.9
Total	160	100.0

Vignette 1: Part B—What would you do about Todd/Jessica after he/she hit you? The responses to part B of Vignette 1 are summarized in Table 4. The majority of the participants (*n* = 87, 54.4 %) entered a code of 2 (*"ask why, ask again"*) to this question. Fifty (31.3%) *would do nothing* (1) and 8 (5.0%) *would seek adult punish* (4) while 7 (4.4%) reported they would *retaliate* (5) toward Todd/Jessica after being hit by

him/her. Seven (4.4%) reported a code of 0 indicating they *do not know what they would do* in this situation while 1 (0.6%) participant entered a code of 3 indicating they would *command*. After recoding the responses on a 1 to 5 scale, the mean score for this vignette was 1.84 (*SD* = 1.03). The result indicated that a majority of participants were assigned low scores revealing that their likely response would be of a non-hostile nature.

Table 4

Vignette 1: Part B (N = 160)

What would you do about Todd/Jessica after he/she hit you?	Frequency	Percent
0 (Don't Know)	7	4.4
1 (Nothing)	50	31.3
2 (Ask why, ask again)	87	54.4
3 (Command)	1	.6
4 (Adult punish)	8	5.0
5 (Retaliate)	7	4.4
Total	160	100.0

Note. Six-point Likert scale: 0 = *don't know*, 1 = *nothing*, 2 = *ask why, ask again*, 3 = *command*, 4 = *adult punish*, and 5 = *retaliate*.

Vignette 2

Vignette 2: Part A—Why do you think Alan/Leah said no? The responses to vignette 2 will be presented in Tables 5. The largest group of participants *(n* = 96, 60%) responded to the question "why do you think Alan/Leah said no?" with a code of 2 representing hostile intent on the part of their peer, with (*n* = 64, 40%) indicating non-

hostile intents on the part of the peer. This result indicated that a majority of the participants received high scores indicating hostile intents.

Table 5

Vignette 2: Part A (N = 160)

Why do you think Alan/Leah said no?	Frequency	Percent
1 (Non-Hostile)	64	40.0
2 (Hostile)	96	60.0
Total	160	100.0

Vignette 2: Part B—What would you do about Alan/Leah after he/she said no? The responses to part B of Vignette 2 are summarized for presentation in Table 6. The majority of the participants (*n* = 95, 59.4 %) entered a code of 1 (*nothing*) to this question. Fifty (31.3%) would *"ask why, ask again"* (2) and 6 (3.8%) *did not know what he/she would do* in this situation (0) while 3 (1.9%) reported they would assert *command* (3) toward Todd/Jessica after being hit by him/her. Three (1.9%) reported a code of 4 indicating they would seek *adult punishment* toward his/her peer while 3 participants entered a code of 5 indicating they would *retaliate* as a result. After recoding the responses on a 1 to 5 scale, the mean score for this vignette is 1.44 (*SD* = .837). The result indicated that a majority of participants were assigned low scores revealing that their likely response would be of a non-hostile nature.

Table 6

Vignette 2: Part B (N = 160)

What would you do about Alan/Leah after he/she said no?	Frequency	Percent
0 (Don't know)	6	3.8
1 (Nothing)	95	59.4
2 (Ask why, ask again)	50	31.3
3 (Command)	3	1.9
4 (Adult punish)	3	1.9
5 (Retaliate)	3	1.9
Total	160	100.0

Note. Six-point Likert scale: 0 = *don't know*, 1 = *nothing*, 2 = *ask why, ask again*, 3 = *command*, 4 = *adult punish*, and 5 = *retaliate.*

Vignette 3

Vignette 3: Part A—Why do you think John/Lisa bumped you? The responses to vignette 3 will be presented in Tables 7. The largest group of participants (*n* = 121, 75.6%) responded to the question "why do you think John/Lisa bumped you?" with a code of 1 representing non-hostile intent on thee part of their peer, with *(n* = 39, 24.4%) indicating hostile intents on the part of the peer. The result indicated that a majority of the participants received low scores indicating non-hostile intents.

Table 7

Vignette 3: Part A (N = 160)

Why do you think John/Lisa bumped you?	Frequency	Percent
1 (Non-Hostile)	121	75.6
2 (Hostile)	39	24.4
Total	160	100.0

Vignette 3: Part B—What would you do about John/Lisa after he/she bumped you? The responses to part B of Vignette 3 are summarized for presentation in Table 8. The majority of the participants (*n* = 69, 43.1 %) entered a code of 1 (*"nothing"*) to this question. Fifty- one (31.9%) *would ask why, ask again* (2) and 14 (8.8%) *did not know what he/she would do* in this situation (0) while twelve (7.5%) reported they would assert *retaliation* (5) toward John/Lisa after being bumped by him/her. Ten (6.3%) reported a code of 3 indicating they will *command* in the given situation while 4 participants entered a code of 4 indicating they will seek *adult punishment* as a result. After recoding the responses on a 1 to 5 scale, the mean score for this vignette is 1.73 (*SD* = 1.25). The result indicated that a majority of participants were assigned low scores revealing that their likely response would be of a non-hostile nature.

Table 8

Vignette 3: Part B (N = 160)

What would you do about John/Lisa after he/she bumped you?	Frequency	Percent
0 (Don't know)	14	8.8
1 (Nothing)	69	43.1
2 (Ask why, Ask again)	51	31.9
3 (Command)	10	6.3
4 (Adult Punish)	4	2.5
5 (Retaliate)	12	7.5
Total	160	100.0

Note. Six-point Likert scale: 0 = *don't know*, 1 = *nothing*, 2 = *ask why, ask again*, 3 = *command*, 4 = *adult punish*, and 5 = *retaliate.*

Vignette 4

Vignette 4: Part A—Why do you think Carl/Carolyn said no? The responses to vignette 4 will be presented in Tables 9. The largest group of participants (*n* = 87, 54.4%) response to the question "why do you think Carl/Carolyn said no?" with a code of 2 representing hostile intent on the part of a peer, with (*n* = 73, 45.6%) indicating non-hostile intents on the part of the peer. The result indicated that a majority of the participants reported high scores indicating hostile intents. For the purpose of analyzing the responses 0's (*"don't know"*) and 1's (*"do nothing"*) were collapsed into a single response by recoding the zeros as ones. Hence the average were based on 1-5 scale.

Table 9

Vignette 4: Part A (N = 160)

Why do you think Carl/Carolyn said no?	Frequency	Percent
1 (Non-Hostile)	73	45.6
2 (Hostile)	87	54.4
Total	160	100.0

Vignette 4: Part B—What would you do about Carl/Carolyn after he/she said no? The responses to part B of Vignette 4 are summarized for presentation in Table 10. The majority of the participants (*n* = 114, 71.3 %) entered a code of 1 (*"nothing"*) to this question. Thirty- two (20.0%) would *ask why, ask again* (2) and 7 (4.4%) *did not know what he/she would do* in this situation (0) while three (1.9%) reported they would use *command* (3) toward John/Lisa after being bumped by him/her. Three (1.9.3%) reported a code of 5 indicating they would *retaliate* in the given situation while 1 (.6%) participant entered a code of 4 indicating they would seek *adult punishment* as a result. After recoding the responses on a 1 to 5 scale, the mean score for this vignette is 1.29 (*SD* = 0.772). The result indicated that a majority of participants were assigned low scores revealing that their likely response would be of a non-hostile nature

Table 10

Vignette 4: Part B (N = 160)

What would you do about Carl/Carolyn after he/she said no?	Frequency	Percent
0 (Don't Know)	7	4.4
1 (Nothing)	114	71.3
2 (Ask why, Ask again)	32	20.0
3 (Command)	3	1.9
4 (Adult Punish)	1	.6
5 (Retaliate)	3	1.9
Total	160	100.0

Note. Six- point Likert scale: 0 = *don't know*, 1 = *nothing*, 2 = *ask why, ask again*, 3 = *command*, 4 = *adult punish*, and 5 = *retaliate.*

Research Questions and Hypotheses

For this research study three research questions and associated hypotheses were established. Each of these questions were addressed using bivariate, descriptive, and moderation statistical analyses. All decisions on the statistical significance of the findings were made using a criterion alpha level of $p < 05$.

RQ1: Is there an association between youth exposure to community violence and adolescents' social information processing of aggressive responses?

$H_0 1$**:** There is no association between youth exposed to community violence and adolescents' social information processing of aggressive responses as measured by vignette responses.

H_a1: There is an association between youth exposed to community violence and adolescents' social information processing of aggressive responses as measured by vignette responses.

A Pearson product moment correlation was used to decide if an association exists between youth exposed to community violence and adolescents' social information processing of aggressive responses as measured by the Things I Have Seen and Heard (TISH) Scale, Vignette part B, hostile attribution bias, and justification response scores summed. Table 11 reports descriptive statistics for the study variables, along with correlation between the TISH scale and the other study variables. The TISH scale was significantly correlated with social information processing as measured by total scores from the Vignettes, Part B (r = .247, p =.002). Hence the null hypothesis for Research Question 1 was rejected, leading to the conclusion that an association does exist between youth exposure to community violence and adolescents' social information processing of aggressive responses. The TISH scale was also significantly correlated with the justification response scores summed (r = .290, p < .001.).

Table 11

A Pearson product moment correlation—Association between youth exposed to community violence and adolescents' social information processing of aggressive responses as measured by the Things I Have Seen and Heard Scale and Vignette responses

Correlations	*M*	*SD*	Pearson Correlation With TISH Scale	*P*-Values	*N*
TISH	4.90	3.59	1		160
Vignette Part B	6.30	2.43	.247**	.002	160
Hostile Attribution Bias	5.56	1.02	.122	.125	160
Justification Response Scores Summed	15.77	3.26	.290**	<.001	160

**Correlation is significant at the 0.05 level (2-tailed).

RQ2: Is there a difference between males and females reports of exposure to community violence?

H_02: There is no difference between males and females' reports of exposure to community violence as measured by the demographic questionnaire and the Things I Have Seen and Heard Scale?

H_a2**:** There is a difference between males and females' reports of exposure to community violence as measured by the demographic questionnaire and the Things I Have Seen and Heard Scale?

A t-test for two independent samples was used to determine if differences exist between males and females reporting of exposure to community violence. The t-test for two independent samples was significant in addressing this research question because it allowed for a determination on whether a significant difference exists. Table 12 presents the results of the t- test analysis.

Table 12

t Test for two independent samples—Differences between male and female reports of violence exposure

Reports of Violence Exposure	*N*	*M*	*SD*	*DF*	*t*	Sig
Reports of Violence						
Male	71	5.20	4.15	125	.905	.367
Female	89	4.66	3.08			

An independent samples t- test was conducted to compare male and female reports of violence exposure. The comparison of the percent of male and female respondents are male ($M = 5.2$, $SD = 4.1$) and female ($M = 4.7$, $SD = 3.1$) conditions; $t(9) = 9.05$, $p = 0.367$ the reports of violence exposure was not statistically significant. This result indicated based on the independent samples test that there was no significant difference between male and females reporting of violence exposure within this study. The null hypothesis was not rejected.

RQ3: Does gender moderate the relationship between community violence exposure and social information processing?

$H_0$2**:** Gender does not moderate the relationship between community violence exposure and social information processing.

H_a2**:** Gender moderates the relationship between community violence exposure and social information processing.

A multiple linear regression was conducted to determine whether gender moderates the relationship between community violence exposure and social information processing.

Moderator Hypotheses

A multiple linear regression was conducted to determine whether gender moderates the relationship between community violence exposure (as measured by the TISH total score) and social information processing (as measured by the sum of the scores from part B of the Vignettes). The analysis was performed in two steps. First, a regression model was constructed which included the TISH variable, gender, as predictors of social information processing. The regression model also included a constant term. At the second step, the moderator hypothesis was examined by adding the interaction term between TISH and gender into the regression model. For the purpose of calculating the interaction term, the TISH scale was centered (i.e., its mean value of 4.91 was subtracted from each of the data values.) Gender was coded as 0 = male; 1 = female.

The interaction term was calculated by multiplying the centered TISH scale scores by gender.

Multiple linear regression—Does gender moderate the relationship between community violence exposure and social information processing*?*

Table 13

Results of regression analysis testing for moderator effects of gender on the relation of community violence exposure to social information processing

	Unstandardized coefficients		Standardized coefficients			
Model Term	b	Std. Error	Beta	t	P-value	VIF
Step 1						
(Constant)	5.6	.370		15.1	<.001	
TISH	.174	.050	.271	3.5	.001	1.006
Gender	.128	.357	.028	.359	.720	1.006
Step 2						
(Constant)	6.3	.413		15.3	<.001	
TISH	0.32	.062	.051	.522	.602	1.702
Gender	-1.6	.587	-.337	-2.7	.009	2.916
TISH*Gender interaction	.346	.097	.489	3.6	<.001	3.436

Step 1:
$R^2 = .073$, $F(2, 157) = 6.181$, $p < .001$.

Step 2:
$R^2 = .143$, $F(3, 156) = 8.651$, $p < .001$.
Step 2 vs Step 1:
$\Delta R^2 = .070$.

The results of the two steps of the regression analysis for the third hypothesis are shown in Table 13. The variance inflation factors (VIF) outline all model terms were substantially less than 10.0, indicating that there were not high correlations (multicollinearity) between variables in the regression model. When community violence exposure and gender were included as the only predictor variables (without including an interaction term), the regression model explained 7.3% of the variance in social information processing ($R^2 = .073$, $p = .003$). The percentage of variance in social information processing explained by the regression model was 14.3% ($R^2 = .143$; $p < .001$). Hence the interaction term accounted for an additional 7.0% of variance of the dependent variable ($\Delta R^2 = .070$).

The interaction term between gender and community violence exposure was statistically significant in the regression model ($p < .001$), and hence the null hypothesis of no moderator effect was rejected. The significant interaction in the regression model implies that the relationship between community violence exposure and social information processing, in terms of the regression slope, is significantly different between for males and females. To illustrate this further, the correlation coefficients between community violence exposure and social information processing within each of the two gender categories are presented in Table 14.

Table 14

Correlation coefficients between TISH Scale and Vignette part B total scores among males and among females

	Pearson Correlation with TISH scale	
	Males	Females
	Pearson Correlation	Pearson Correlation
Vignette Part B	.068	.456**

Note. Males $N = 71$; Females $N = 89$.
**Correlation is significant at the 0.01 level (2- tailed).

Among the males, the correlation between the TISH and social information processing the score is almost zero with a Pearson correlation .068, $p = .572$. Among females, the correlation between the THIS and social information processing was Pearson correlation .456, $p < .001$. The substantial difference between the two genders in regard to the correlation coefficients is consistent with the finding reported above, that gender moderates the relationship between exposure to violence and social information processing.

Summary

The purpose of this quantitative study was to determine whether exposure to community violence is linked to social information processing. A significant correlation between exposure to community violence (as measured by the TISH scale) and social information processing (as measured by the sum of scores from the Vignettes, part B) existed. There was not a significant difference between males and females in regard to levels of exposure to community violence. Finally, it was found that gender moderates

the relationship between exposure to violence and social information processing. This result, which was found using moderated multiple regression analysis, was cross-validated by comparing the correlations between exposure to violence and social information processing for males versus females. The much larger correlation coefficient among females, compared to males, indicated that the degree of the relationship between exposure to violence and social information processing varies by gender.

Chapter 5 will discuss this study's conclusions and recommendations based on the findings, along with implications for social change.

Chapter 5: Summary, Recommendations, and Conclusion

Introduction

This chapter presents an interpretation of the findings from the study, limitations of the study, recommendations for future actions and studies, implications for positive social change, and conclusions. The purpose of this research study was to evaluate whether there is an association between community violence exposure and social information processing of aggressive response among adolescents. This exploratory study further investigated whether social information processing—specifically hostile attribution bias, aggressive response generation, and justification of aggression responses to threat—and its relationship to violence exposure is moderated by gender. The social cognitive (Bandura, 1986, 1989), social-ecological (Dahlberg et al., 2002), and developmental ecological (Bronfenbrenner, 1979) theoretical frameworks guided this study. For this study, I formulated three research questions, which were the foundation for the hypotheses that were addressed and answered. Findings are discussed below.

Interpretation of Findings

The data from this study showed that a relationship does exist between youth exposure to community violence and adolescents' social information processing of aggressive responses. Male and female participants' reporting of their violence exposure experience did not indicate a significant gender difference. The data indicated that gender does moderate the relationship between community violence exposure and social information processing.

Research Question 1

Research Question 1 was as follows: Is there an association that exists between youth exposure to community violence and adolescents' social information processing of aggressive responses?

According to social cognitive theory, individuals cognitively construct experiences within their social environment. According to the constructivism principle, individuals develop meaning from their surroundings (Gopnik & Wellman, 2012). This process helps individuals develop firsthand experiences of their surroundings and thereby develop dependable, truthful knowledge. After the gathering of this knowledge, individuals are expected to act upon the environment to both obtain and examine knowledge (Gopnik & Wellman, 2012).

According to the principles of social cognitive theory, individuals perceive themselves and others, interpret the meanings behind others' behaviors, generate possible solutions to social problems, and choose behavioral responses to social problems (Gannon, 2009). The results for RQ1 are consistent with recent research by Guerra, Huesmann, and Spindler (2003), who conducted a quantitative method causal study of urban children that indicated that when individuals are exposed to violence within the community, it can affect their processing of social information and display of negative behavior by way of imitating those whom they observed committing violence and through both imitation of violence and social cognition growth in relation to faulty behavior (Guerra et al., 2003).

Research Question 2

Research Question 2 was as follows: Is there a difference between males' and females' reports of exposure to community violence?

In the present study, it was found that males and females did not differ in regard to the levels of violence they witnessed. This is hardly surprising if the participants were residing in similar community settings. (However, it should be noted that because subjects were recruited from communities in the Midwest, males and females were not necessarily residing in the same communities). On the other hand, previous studies have reported that male and female adolescents experience violence exposure and its impact differently; gender differences exist in the types of symptoms reported following violence exposure (Hanson et al., 2008). This research is pertinent to the third research question.

Research Question 3

Research Question 3 was as follows: Does gender moderate the relationship between community violence exposure and social information processing?

The results of this study provided an affirmative answer to the third research question. Among females, there was a strong correlation between community violence exposure and social information processing. However, among males, the correlation between the two variables was almost zero. There has been no previous research investigating whether gender moderates the relationship between community violence exposure and social information processing among adolescents (Bradshaw et al., 2009). Although earlier research on social information processing seldom addressed the cause and development of biased social information processing, ecological studies

(Bronfenbrenner, 1979) indicated that violence exposure has an impact on the way children gather information from what they have observed, leading to the potential for conflictual interactions (Bradshaw et al., 2009; Zona & Milan, 2011).

A suggested explanation for why there was a correlation among females (but not for males) between community violence exposure and social information processing may be due to three elements. According to Jackson (2008) the three elements are risk exposure, expectation of severe or dangerous repercussions, and lack of control (shortage of self-defense, ability to protect oneself, or the ability to flee from threatening situations). For instance, it is expected that those that are more vulnerable to attacks includes females, children, elderly and frail people. Taking this into account, according to Jackson (2008) the difference in how males and females worry plays a big part in how they perceive social information when exposed to violence.

When assessing the gender difference in worrying the explanation was mainly explained by the females as opposed to males. The females often reported feeling unable to defend themselves when attacked, judging themselves of having limited risk control than males, and judging conflicting situations to be more severe (Jackson, 2008). Researchers reported that individuals who feel more vulnerable to risk had a high tendency to process environmental clues as serious or threatening (Bradshaw et al., 2009). When an individual views a social situation as increasingly serious and has the feeling that he or she lack control over the situation, this increases worry, resulting in bias social information processing.

According to Jackson (2008, p. 147) “circumstances or events that appear innocuous or comparatively minor to males are younger person are opt to be viewed more dangerous to females and the elderly because of the offenses they imply or portend”. This study may explain why there was a high correlation among females but not for males between community violence exposure and social information processing.

Instead of concluding that male youth do not experience symptoms or that their responses to violence exposure are minimized, one could come to the more probable conclusion that there are basic differences between genders in how individuals respond to questions asked about their experience of being exposed to violence. Females have been shown to display and report internalizing symptoms such as being depressed and anxious during and after exposure to violence or becoming hyper aroused, whereas males have often displayed and reported externalizing symptoms such as becoming aggressive and displaying misconduct as a way to solve social conflict, which may explain the difference in social processing of environmental clues (Arsenio et al., 2009; Bradshaw et al., 2009; Hanson et al., 2008).

Violence exposure may be responsible for youth developing distorted social information processing styles; gender has been shown to play a role in how one socially processes clues in the environment (Bradshaw et al., 2009). A study investigated gender as a moderator in the relationship between environmental and emotion regulation factors in youth (Musher-Eizenman et al., 2004), and findings indicate that gender moderates the relationship between violence exposure and social cognitive variables. Gender is an important factor in explaining differential outcomes resulting from community violence

exposure (Hanson et al., 2008). Further research is needed to confirm whether a difference in how males and females worry plays a part in how they perceive social information when exposed to violence and to empirically investigate whether risk exposure, expectation of severe or dangerous repercussions, and lack of control is associated with worry.

Limitations of the Study

A limitation of this research study was that the participants may not be representative of youths acting violently as a direct result of being exposed to community violence. A second limitation of this study was that some participants may have answered questions based on their perception of what I wanted them to say. A third limitation of this study was the limited amount of time for this research project, which was not sufficient to determine the full effects community violence exposure may have on adolescent behavior. A final limitation was the use of cross-sectional research data to assess community violence exposure's effects on behavior. With a cross-sectional design, it is difficult to determine the direction of the associations of the variables under study (Bradshaw et al., 2009).

Recommendations for Future Research

The participants within this research study varied in environment, gender, ethnicity, educational level, and violence exposure type and amount. Nonetheless, all of the participants were 18 years of age, and this study was limited to sampling a population of youth in the Midwestern U.S. states. Therefore, recommendations for future research include using participants from other age groups and residing in other states and

countries. Some participants within this study may have answered the survey questions based on their perception of what I wanted them to say. In addition, recommendations for further study include alternative explanations of aggressive behavior, which may assist the participants in clearly understanding and determining the impact associated with community violence exposure.

A limitation of this study was the use of cross-sectional research data to assess community violence exposure effects on social information processing among youth. With using a cross-sectional design, there is difficulty in determining the direction of the associations of the variables under study (Bradshaw et al., 2009). I recommend for further study to ascertain the direction of the association and an understanding of community violence exposure relationship with social-cognitive processes and the effects on youth behavior, longitudinal research was suggested. In this study, I reported that females had a higher correlation between community violence exposure and social information processing then males, future studies should attempt to replicate these results. Future research should also test whether an association exist between internalizing and externalizing symptoms during and after exposure to violence that effect the difference in correlations between community violence exposure and social information processing among males and females.

Recommendations for Practice

Based on this studies results there are three recommendations I would make. The first recommendation I would make was based on the implications of this study's findings that among females there is a stronger relationship between violence and exposure and social information processing. There will be a need for interventions that target teenage girls. I recommend educating parents, behavioral treatment facilities staff, violence reduction community service organizations and educational leaders on understanding the impact violence exposure has on youth social information processing.

Based on this study's findings, change agents should be educated on the reason for the need of interventions for teenage girls. Researchers report females have internalizing symptoms such as becoming depressed, anxious, and hyper aroused during or after problematic situations. These internalizing symptoms may play a strong role in how females process social, environmental clues. (Arsenio et al., 2009; Bradshaw et al., 2009; Hanson et al., 2008). Knowledge of this information can better assist change agents to be able to recognize sign and symptoms among females thus enabling them to better assist them when they display such behavior outcomes. As this study assert, there is a positive association between violence exposure and social information processing which plays a significant part in the growth of bias social information processing of adolescents.

The second recommendation I would make is that behavioral modifying treatment centers, juvenile justice centers, and educational leaders should reinforce the educational systems. Reinforcement of the educational system can be achieved by

enhancing education on the relationship between community violence exposure and adolescent social information processing of aggressive responses.

The third recommendation I would make is to encourage community violence researchers to continue to explore and examine violence exposure association with adolescents social information processing and to further assess gender roles in relations to this association. The research findings would help to improve the educational system, by educating professionals who assist in preventing and treating aggressive responses among youth. These recommendations will increase the knowledge base concerning the association between community violence exposure and social information processing which can exhilarate further research needed in these areas.

Implications for Social Change

Identifying whether an association exist between community violence exposure and youth social information processing provide a foundation for the improvement of human conditions and social-behavioral changes within communities. The implications for positive social change in this research study aid in creating awareness regarding community violence exposure effects and the influence exerted on biased social information processing with the potential to result in aggressive responses among youth.

The results of this study will be useful in promoting the development of programs designed to combat dysfunctional social information processing and to teach alternative skills that will be appropriate for resolving issues when in conflicting situations. The results will further, fill the gaps in current literature and provide suggestions for evidence

based strategies used in the prevention of biased thought processes and aggressive responses among youth. (Farrell et al., 2008; Zona & Milan, 2011).

Modifications in the community violence prevention programs can be potentially useful in establishing suitable community programs that assist with and decrease violent behavior among youth. Aid in promoting social policy change, or the potential gaining of funding for community violence prevention programs intended for preventing violence among youth. The long term results of this study will pave the way for professional research supporting this rising public health problem in the Midwest and throughout the United States of America.

Positive social change can be promoted by the use of data gathered from the adolescent participants' responses of their violence exposure experience and social information processing of this lived experience. Moreover, assessing gender differences and whether gender moderators the relationship between community violence exposure and social information processing has the potential to increase one's knowledge of the relationship and assist with modifying behavior responses.

With the information that gender moderates the relationship between community violence exposure and social information processing, community violence prevention programs and centers would be able to understand better and treat the emotional factors relating to violence exposure. This information could also assist school-based interventions and violence prevention programs in targeting the way in which adolescent girls and young women make decisions when placed in ambiguous or potentially threatening situations. Lastly, support groups for aggressive youth can be established,

stress relieving techniques can be taught and learned, and positive coping skills to replace violence behavior outcomes can result.

Conclusion

The motivation of this research study was concern regarding factors that underlie the perpetuation of social aggression and violence experienced by youth in urban communities. A total of 160 participants consisting of both males and females 18 years of age from different ethnic groups who reside in the Midwestern states participated within this study. The data that was collected from the participants was a demographic form, The Things I Have Seen and Heard Scale (Richters & Martinez, 1990), and vignettes (Crick and Dodge, 1994). In this study, a significant relationship was found between youth exposure to community violence and adolescent social information processing of aggressive responses.

This study findings also included no significant difference between males and females on levels of violence exposure. Among females (but not among males) there was a strong relationship between community violence exposure and social information processing. This gender difference may be explicable in terms of different ways that males and females process information after exposure to violence. However further research is needed to replicate this finding and to investigate psychological factors associated with it.

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Appendix A: Demographic Questionnaire Form

1. How old are you?
2. What is your educational level?
3. What is your gender? (Please circle one)
    a. Male
    b. Female

What is your race? (Please circle one)

a. Caucasian/White

b. African-American/Black

c. Hispanic

d. Asian/ Pacific Islander

e. Native-American

Appendix B: Independent Variable—Community Violence Exposure—The Things I Have Seen and Heard Scale

Please circle the number that indicate your level of exposure to each.

1. Seen someone being beaten up

0= never 1= once or twice 2= a few times 3= many times

2. Seen someone being arrested by the police

0= never 1= once or twice 2= a few times 3= many times

3. Seen drug deals

0= never 1= once or twice 2= a few times 3= many times

4. Heard guns being shot

0= never 1= once or twice 2= a few times 3= many times

5. Seen somebody pull a knife on another

0= never 1= once or twice 2= a few times 3= many times

6. Seen gangs in my neighborhood

0= never 1= once or twice 2= a few times 3= many times

7. Seen somebody pull a gun on another

0= never 1= once or twice 2= a few times 3= many times

8. My house has been broken into

0= never 1= once or twice 2= a few times 3= many times

9. Seen someone get stabbed

0= never 1= once or twice 2= a few times 3= many times

10. Seen someone get shot or shot at

0= never 1= once or twice 2= a few times 3= many times

Appendix C: Dependent Variable—Social Information Processing—Vignettes

Please read the following scenario and write a brief statement describing your interpretation (understanding) of the provocateurs' (a person who provokes trouble) intent and your likely response (how you will respond to the situation given):

1. Pretend that you are standing on the playground playing catch with a kid named Todd/Jessica. You throw the ball to Todd/Jessica and he/she catches it. You turn around, and the next thing you realize is that Todd/Jessica has thrown the ball and hit you in the middle of your back. The ball hits you hard, and it hurts a lot.

a) Why do you think Todd/Jessica hit you in the back?

_____

_____

1	2
Non-Hostile Intents	Hostile Intents

b) What would you do about Todd/Jessica after he/she hit you?

_____

_____

1	2	3	4	5
nothing	ask why, ask again	command	adult punish	retaliate

2. Pretend that you see some kids playing on the playground. You would really like to play with them, so you go over and ask one of them, a kid named Alan/Leah, if you can play. Alan/Leah says no.

a) Why do you think Alan/Leah said no?

_____

_____

1	2
Non-Hostile Intents	Hostile Intents

b) What would you do about Alan/Leah after he/she said no?

_____

_____

1	2	3	4	5
nothing	ask why, ask again	command	adult punish	retaliate

3. Pretend that you are walking to school and you're wearing brand new sneakers. You really like your new sneakers and this is the first day you have worn them. Suddenly, you are bumped from behind by a kid named John/Lisa. You stumble into a mud puddle and your new sneakers get muddy.

a) Why do you think John/Lisa bumped you?

_____

_____

1	2
Non-Hostile Intents	Hostile Intents

b) What would you do about John/Lisa after he/she bumped you?

_____

_____

1	2	3	4	5
nothing	ask why, ask again	command	adult punish	retaliate

4. Pretend that you are a new kid in school and you would really like to make friends. At lunch time you see some kids you would like to sit with and you go over to their table. You ask if you can sit with them and a kid named Carl/Carolyn says no.

a) Why do you think Carl/Carolyn said no?

_____

_____

1	2
Non-Hostile Intents	Hostile Intents

b) What would you do about Carl/Carolyn after he/she said no?

_____

_____

1	2	3	4	5
nothing	ask why, ask again	command	adult punish	retaliate

c) Is it ok for me to hit someone if they start a fight on my turf, what would you do?

_____

_____

1	2	3	4	5
nothing	ask why, ask again	command	adult punish	retaliate

Appendix D: Dependent Variable—Social Information Processing—Assessment of the Hostile Attribution Bias

The hostile attribution bias will be assessed by the degree of hostility participants inferred in regards to their beliefs of the peer's intents outlined in the four vignettes. The hostility rating will be rated on a 6- point Likert scale where high scores will be assigned to aggressive intents and low scores will be assigned to non-aggressive intents. The participants will do the ratings after reading the vignettes, then they will respond to questions about the vignettes. The responses of the participants were coded and entered in the SPSS system. The four vignette scenarios that the participants will read are listed and following each vignette there is a question provided for the participant to answer. The four questions following each of the four vignettes are utilized to determine the hostility ratings of the participants.

Vignette Scenarios and Questions

1. Pretend that you are standing on the playground playing catch with a kid named Todd/Jessica. You throw the ball to Todd/Jessica and he/she catches it. You turn around, and the next thing you realize is that Todd/Jessica has thrown the ball and hit you in the middle of your back. The ball hits you hard, and it hurts a lot.

Question: Why do you think Todd/Jessica hit you in the back?

_____

_____

2. Pretend that you see some kids playing on the playground. You would really like to play with them, so you go over and ask one of them, a kid named Alan/Leah, if you can play. Alan/Leah says no.

   Question: Why do you think Alan/Leah said no?

_____

_____

3. Pretend that you are walking to school and you're wearing brand new sneakers. You really like your new sneakers and this is the first day you have worn them. Suddenly, you are bumped from behind by a kid named John/Lisa. You stumble into a mud puddle and your new sneakers get muddy.

   Question: Why do you think Carl/Carolyn said no?

_____

_____

4. Pretend that you are a new kid in school and you would really like to make friends. At lunch time you see some kids you would like to sit with and you go over to their table. You ask if you can sit with them and a kid named Carl/Carolyn says no.

   Question: Why do you think Carl/Carolyn said no?

_____

_____

Coding of the Rating Scale:

Variable Description
(Question Code)
Values (Question Label)
1= Non-Hostile Intents
2=Hostile Intents

Appendix E: Dependent Variable—Social Information Processing—Assessment of Response Generation

The aggressive response generation will be assessed by the degree of hostility in what the participants will report how they will likely respond in the given situation in the four vignettes. This will also be rated on a 5- point Likert scale.

Vignette Scenarios and Questions

5. Pretend that you are standing on the playground playing catch with a kid named Todd/Jessica. You throw the ball to Todd/Jessica and he/she catches it. You turn around, and the next thing you realize is that Todd/Jessica has thrown the ball and hit you in the middle of your back. The ball hits you hard, and it hurts a lot.

Question 1: What would you do about Todd/Jessica after he/she hit you?

_____

_____

6. Pretend that you see some kids playing on the playground. You would really like to play with them, so you go over and ask one of them, a kid named Alan/Leah, if you can play. Alan/Leah says no.

Question 2: What would you do about Alan/Leah after he/she said no?

_____

_____

7. Pretend that you are walking to school and you're wearing brand new sneakers. You really like your new sneakers and this is the first day you have worn them. Suddenly, you are bumped from behind by a kid named John/Lisa. You stumble into a mud puddle and your new sneakers get muddy.

Question: What would you do about John/Lisa after he/she bumped you?

_____

_____

8. Pretend that you are a new kid in school and you would really like to make friends. At lunch time you see some kids you would like to sit with and you go over to their table. You ask if you can sit with them and a kid named Carl/Carolyn says no.

Question: What would you do about Carl/Carolyn after he/she said no?

_____

_____

Coding of the Rating Scale:

Variable Description
(Question Code)
Values (Question Label)
1=nothing
2= ask why, ask again
3= command
4= adult punish
5= retaliate

Appendix F: Dependent Variable—Social Information Processing—Assessment of Justification of Responses to Threat

The justification of aggression will be assessed by four items outlining the perceived legitimization or appropriateness of aggressive responses to threat. The participants will indicate on a 5-point Likert scale the degree to which they agreed with statements such as "It is OK for me to hit someone if they start a fight on my turf". The responses across the four items on the vignettes will be averaged, where the higher the score the greater the support for aggressive behavior will be indicated.

Justification of Responses to Threat

The justification of aggression will be assessed by four items outlining the perceived legitimization or appropriateness of aggressive responses to threat. The participants will indicate on a 6-point Likert scale the degree to which they agreed with statements such as "It is OK for me to hit someone if they start a fight on my turf".

Question: Is it ok for me to hit someone if they start a fight on my turf, what would you do?

_____

_____

Coding of the Rating Scale:

Variable Description
(Question Code)
Values (Question Label)
1=nothing
2= ask why, ask again
3= command
4= adult punish
5= retaliate