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Social Bonds And Fear Of Crime Victimization Among Youth: An Analysis Using Ferraro's Risk Assessment Framework

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SOCIAL BONDS AND FEAR OF CRIME VICTIMIZATION AMONG YOUTH: AN
ANALYSIS USING FERRARO'S RISK ASSESSMENT FRAMEWORK

A Dissertation

By

PRAVEENRAO BOLLI

Submitted to the Office of Graduate Studies of
Prairie View A&M University
In partial fulfilment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2023

Major Subject: Juvenile Justice

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Approved as to style and content by:

Dr. Myrna Cintron
Chair of Committee

Dr. Nabil Ouassini
Member

Dr. Shantae Motley
Member

Dr. Douglas Hermond
Member

Dr. Myrna Cintron
Head of the Department

Dr. Camille Gibson
Dean of College

Dr. Tyrone Tanner
Dean of Graduate Studies

August 2023

Major Subject: Juvenile Justice

ABSTRACT

Social Bonds and Fear of Crime Victimization Among Youth: An Analysis Using

Ferraro's Risk Assessment Framework

(August 2023)

Praveenrao Bolli, B.Tech., Jawaharlal Technological

University; M.S., Prairie View A&M University;

M.A., Prairie View A&M University;

Chair of Advisory Committee: Dr. Myrna Cintron

The impact of crime taking place in society can be fluid and may quickly gain the form of fear among individuals with both direct and no direct victimization experience. While youth are extensively more vulnerable and immature than adults (Krulichová & Podaná, 2019), they are more likely to have or learn the fear of crime victimization. Therefore, the distribution and etiology of youth fear of crime victimization should not be overlooked. Ferraro's (1995) risk assessment framework suggests incorporating theoretical variables to predict the evolution of fear. With the inclusion of the perceived risk of victimization, Ferraro's risk assessment framework provides a comprehensive understanding of how an individual's response to crime transitions into fear of crime victimization. This research utilized the Ferraro risk assessment framework and employed Social Bond Theory to examine the impact of social bonds on youth's perceived risk and fear of crime victimization. This quantitative research utilized secondary data to perform analysis. The data for this research came from the National Evaluation of the Teens, Crime, and Community and the Community Works (TCC/CW)

program, a self-report study of adolescents from several locations across the United States (Esbensen, 2005). This research conducted a Mediation Analysis to understand the relationships between social bonds, such as parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities, perceived risk of victimization, and fear of crime victimization among youth in general and across various race/ethnic and gender backgrounds of the youth. Results from Mediation Analysis identified that perceived risk of victimization significantly mediated the relationship between parental attachment and fear of crime, and school commitment and fear of crime among all youth and girls. Further, the study results suggested a non-significant relationship between all the elements of the social bonds, perceived risk of victimization, and fear of crime victimization among young males irrespective of their race and ethnic origin. Overall, two elements of social bonds, parental attachment and school commitment, were found to be important in minimizing the perceived risk of victimization and fear of crime victimization among the youth in general and specifically among females.

Keywords: social bonds, perceived risk of victimization, fear of crime victimization, Ferraro's risk assessment framework, youth, gender

DEDICATION

I dedicate this dissertation to my dear Grandmother Bolli Pochavva, dear Grandfather Bolli Chandraiah, Department of Justice Studies, and Prairie View A&M University.

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I thank my parents, Bolli Swamy and Bolli Shyamala, for nurturing me and my little sister Dr. Bolli Pravalika, M.D. Thank you very much, Dr. Myrna Cintron, for being my advisor and providing me with consistent guidance and support from day one to throughout my graduate school. Without Dr. Myrna Cintron's guidance and efforts, I cannot not imagine where I would be today. Madam, I am deeply enlightened under your mentoring, inspired by your expertise, morals, and values in the profession, and I look up to you as my role model. Once again, thank you, Madam Dr. Myrna Cintron. My thanks to you. You are equal to my parents forever.

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CHAPTER I

INTRODUCTION

A phenomenon observed in the United States of America is the excessive spread of fear of crime over and above the actual crime victimization (Warr, 1994; Warr, 2000). The term “fear of crime” was initially discussed in the President's Commission on Law Enforcement and Administration of Justice (1967) report. The report described the impact of violent crime and fear of crime, emphasizing the worthy avenue of empirical research in the area of fear. Since 1967, studies have confirmed that the impact of crime victimization is not limited to those involved in the experience but includes a wide range of citizens; that is, fear of crime victimization is generalized among the U.S. population (Hale, 1996; President's Commission on Law Enforcement and Administration of Justice, 1967).

After the President's Commission on Law Enforcement and Administration of Justice (1967) report, fear of crime gained scholarly attention. The report provided scholars with a new direction in understanding the consequences of crime by suggesting research to focus upon individuals impacted by indirect victimization (Conklin, 1971), wherein fear of crime is classified as most dreadful (Ferraro & LaGrange, 1992). A consensus in defining fear of crime among studies (Lane et al., 2014), is that fear of crime is a “negative emotional response developed by crime or symbols related with the crime” (Ferraro & LaGrange, 1987, p.73).

This dissertation follows the *Publication Manual of the American Psychological Association, 7th Edition*.

Crime in many societies is understood as a social problem irrespective of one's victimization experience. According to Skogan and Maxfield (1981), fear evolution could not be logically credited to the direct experience of crime victimization. Due to the widespread nature of the crime, people with no direct victimization experience may also hold fear of crime victimization. Therefore, how individuals learn about the fear of crime victimization and the adverse effects of one's fear should not be belittled (Katzenbach et al., 1967).

Fear of crime research has attempted to answer questions about which population is experiencing fear and what they are afraid of (Melde, 2007). In general, fear of crime victimization studies reported a higher level of fear among youth, females, racial and ethnic minorities (Hale, 1996; Melde, 2007), residents of disorganized neighborhoods (Hale, 1996), and urban population (Liska et al., 1982; Moser, 1992). Some studies found similarities between adults and adolescents in demographic predictors of fear of crime victimization (May, 2001; May & Dunaway, 2000; May et al., 2002; Schreck & Miller, 2003). In contrast, other studies argued that differences between adults and juvenile implied there were antecedents, such as juveniles' capacity to learn from socialization (Wallace & May, 2005), and of fear of crime (May, 2001; May & Dunaway, 2000; Schreck & Miller, 2003).

Fear of school crime and victimization have also been analyzed. For example, when schools become sites of crime and victimization, such as in mass shootings like those that occurred in Parkland, Florida (Katsiyannis et al., 2018), Newtown, Connecticut (Katsiyannis et al., 2018), Santa Fe, Texas (NBC New York, 2018), and Uvalde, Texas (Woodrow Cox et al., 2022), adolescents are more likely to hold fear of crime

victimization. School youth are more vulnerable than elder citizens (Krulichová & Podaná, 2019). They tend to perceive these threats as life-threatening and can generalize fear of crime victimization to every setting (Gladstone & Parker, 2003; Warr & Stafford, 1983), which indicates the necessity to study youth fear of crime victimization.

The year 2021 alone witnessed 42 school shootings, that is on an average, one school shooting for every nine days in the year (Woodrow Cox & Rich, 2021). According to the School Shooting Database (Woodrow Cox et al., 2022), around 331 schools shootings occurred since the 1999 Columbine High School shooting, leaving a direct victimization experience for 311,000 adolescents and numerous adolescents nationwide with indirect victimization perceptions. Similarly, Addington (2003) argued that nationwide, adolescent fear of victimization has become a common phenomenon since the 1999 Columbine High School shooting. Various sociological factors influence this adolescent fear of crime victimization. An attempt to identify those factors was developed by Ferraro in 1995.

Ferraro's risk assessment framework has been helpful in explaining fear because the framework incorporates perceived risk factors in examining fear of crime victimization. Ferraro's risk assessment framework assumes that the perceived risk of victimization causes fearful reactions, and a way to understand this phenomenon is by knowing one's perceived risk of victimization (Ferraro, 1995b). It means the framework assumes that understanding perceived risk predicts fear (Melde & Esbensen, 2009).

While perceived risk is empirically supported (Farrall et al., 2009; Gainey et al., 2011; Jackson, 2004), other advantages of using Ferraro's framework include understanding demographic differences in fear of crime victimization. Although

perceived risk and fear share some similarities, there exists a conceptual difference (Wilcox Rountree & Land, 1996) and represent two vital angles of an individual's response to crime (Ferraro, 1995b; Ferraro and LaGrange, 1987; Wilcox Rountree & Land, 1996) which broadens the scope of understanding individuals fear of crime victimization.

While proposing his fear of crime framework, Ferraro reported a higher correlation between youth's perceived risk and fear than among adults, indicating the importance of youth studies. Recent studies have suggested that using Ferraro's risk assessment framework fits the analysis of adolescent fear of crime victimization (Melde, 2007). Despite this suggestion, many studies using the risk assessment framework rely on the adult samples (Hale, 1996; May, 2001; May et al., 2002; Melde & Esbensen, 2009; Schreck & Miller, 2003; Wallace & May, 2005; Warr, 2000). Simultaneously, the lack of theoretical integration explaining gender differences is also evident in adolescent fear studies.

To fill the gap in the literature on fear of crime victimization. This study analyzed adolescent fear using Ferraro's risk assessment framework in conjunction with theories that account for gender differences in fear of crime victimization. Specifically, this study advances the utility of Ferraro's risk assessment framework in identifying how adolescents' social bonds affect their perceived risk judgments and fear of crime victimization perceptions.

Statement of the Problem

While developing the risk assessment model, Ferraro (1995) used theories like Symbolic Interactionism, Opportunity Theory, and Incivility Hypothesis. Ferraro urged

researchers to advance his risk-assessment framework with the support of other suitable perspectives, which could help understand the fear of crime among various age groups. As a result, Ferraro's risk assessment framework has been extended with Routine Activity Theory to study adolescent fear of crime (Ferraro, 1995b; Melde, 2007, 2009) and Rational Choice Theory (Ferraro, 1995a).

While most criminological theories explain juvenile delinquency, one theory, in particular, Social Bond Theory (Hirschi, 1969), explains why juveniles might not turn to delinquency or avoid the risk of victimization, and the same theory can also be used to explain the fear of crime. Hirschi (1969) developed Social Bond Theory to explain why individuals conform to non-offending behavior. Social Bond Theory proposes attachment, commitment, involvement, and belief as the components used in examining behaviors. More details regarding the Social Bond Theory are discussed in the literature review section, but the theory has strong empirical support for most of its bond elements (Jenkins, 1997; Payne, 2008; Stewart, 2003). The theory explains how bonds control individuals, thus decreasing the risk of victimization and delinquent involvement behavior. According to Lane et al. (2014), using Social Bond Theory is vital in knowing how its elements impact youth fear of crime victimization.

This research proposed the importance of using Ferraro's framework in understanding juvenile bonds such as parental attachment, beliefs of guilt for wrongdoings, school commitment, and involvement in legitimate activities' impact on their risk and fear perceptions. Two justifications support the use of social bonds.

First, Ferraro (1995) stated that perceived risk interpretation involved exposure to the probability of loss or harm. This is because perceived risk interpretation entails the

probability that individuals cannot be accurate about their risk of victimization; therefore, individuals rely on various social factors and make interpretation about victimization risk (Fischhoff et al., 1993). Therefore, one's social bonds can allow individuals to estimate their potential danger, known as perceived risk. In addition, social bonds can be a cause of human behavior which allows individuals to interpret the risks around them.

Social Bond Theory states that elements of social bonds allow adolescents to avoid delinquent behavior and risk of victimization, which refers to the phenomena of risk interpretation. While the social bonds provide the capacity to interpret risk and avoid delinquency, the same bonds can allow adolescents to interpret their risk of victimization, which is related to perceived risk and fear of crime. When adolescents encounter a real or imagined threat, their interpretive process is conditioned by the strength of the bonds, and thus affect their views towards the threat. Therefore, Social Bond Theory is suitable as a model-building process using Ferraro's risk assessment framework.

Secondly, studies using Ferraro's risk assessment framework to analyze youth fear of crime utilized predictor variables such as demographic factors (Ferraro, 1995b; Melde & Esbensen, 2009; Perumean-Chaney & Sutton, 2013; Wilcox Rountree & Land, 1996), school characteristics (Ferraro, 1995b; Melde & Esbensen, 2009; Melde et al., 2016; Wilcox Rountree & Land, 1996; Yuan et al., 2015), delinquent peers (Miller & Decker, 2001; Schreck et al., 2004; Yuan & An, 2017), non-delinquent peers (Melde, 2009; Yuan & An, 2017), delinquent lifestyle (Miller & Decker, 2001), parental attachment (May et al., 2002), and gender differences (Blackwell et al., 2002).

These studies have rarely used all the theoretical elements of Social Bond Theory to predict adolescent fear crime using Ferraro's risk assessment framework. This study

fills the gap by using Ferraro's risk assessment framework to examine the how relationship between adolescents' social bonds (such as parental attachment, the belief of guilt for wrongdoings, school commitment, and involvement in legitimate activities) and youth fear of crime victimization is mediated by the perceived risk of victimization. In doing so, this research includes variables of youth parental attachment, the belief of guilt, school commitment, and involvement in legitimate activities into the study model to test the relationship between social bonds, youth perceived risk of victimization, and fear of crime. Additionally, the research attempted to identify how the mediating role of perceived risk varied across various racial/ethnic and gender groups in the relationship between youth social bonds and fear of crime.

Evolution of Fear of Crime Research: Background

This section provides an overview of the fear of crime research. In their study, Lane et al. (2014) identified three chronological periods (such as 1971-1985, 1986-2000, 2001-2014) in fear of crime research. The three periods identified themes concerning the advancement of fear of crime research that includes demographic, measurement and methodological, and theoretical studies.

Demographic Studies

The first chronological period, 1971-1985, appeared to have demographic-themed studies because several studies focused on demographic variables to predict fear of crime during this period. Studies extensively utilized demographic factors such as age, sex, socio-economic status, and racial and ethnic background to predict adult fear of crime (Clemente & Kleiman, 1977). These studies set a vulnerability model trend by exploring vulnerable populations' fear of crime (Garofalo, 1979), such as the elderly population

(Clemente & Kleiman, 1976; Warr, 1984) and racial and ethnic groups (Liska et al., 1982) association with higher fear of crime.

Many of the studies used the National Crime Survey (now known as National Crime Victimization Survey) and General Social Survey data, which lacked distinction in the concepts and measurements (Lane et al., 2014). However, according to Lane et al. (2014), some exceptional studies of this period focused on outlining the fear of crime research conceptualizations (Garofalo, 1981), and the impact of direct and indirect crime on urban adults (Skogan et al., 1982), and adjacent causes of fear of crime (Warr & Stafford, 1983). Fear of crime appeared in several academic studies focusing exclusively on the urban (Liska et al., 1982) and adult population (Clemente & Kleiman, 1977; Skogan & Maxfield, 1981; Stafford & Galle, 1984), ignoring adolescents fear of crime. The emphasis of older citizen's fear of crime rather than adolescent in the first period may be due to measurement and methodological issues (Clemente & Kleiman, 1976; Lindquist & Duke, 1982; Mullen & Donnermeyer, 1985), the theme of the second period.

Measurement and Methodological Studies

The theme of the second chronological period, 1986-2000, addressed measurement and methodological issues. The scholarly work productivity during this period increased tremendously, indicating the academic interest in fear of crime research. Emphasis is seen on studies examining causal factors of fear of crime by including variables beyond the demographic characteristics and using multivariate analysis in studying fear of crime correlates (Ferraro, 1995b; Lane et al., 2014; Smith & Hill, 1991).

Studies during this period examined past victimization (Skogan, 1987), violent and property victimization (Weinrath & Gartrell, 1996), and risk perceptions and

everyday activities (Wilcox Rountree & Land, 1996) impact on adult fear of crime. Research conducted on gendered analysis of fear of crime concerning sexual victimization (LaGrange & Ferraro, 1989; Stanko, 1995), concluded that female's higher fear of crime was affected by experiences of sexual assault victimization (Warr, 1984, 1985). Measurements and methodological integration explaining adult fear of crime expanded the analysis of individual and environmental differences observed earlier (Ferraro, 1995b; May, 1999; Wilcox Rountree & Land, 1996).

It was not until late 1990 that the studies exclusively focused on adolescent samples (May & Dunway, 2000). The increase in the scholarly interest is in part explained by the fact that youth are at significant risk of criminal victimization both at home and in public spaces (Whitbeck et al. 1997, 1999, 2001). Adolescent-focused fear of crime studies in this period examined gender and race and ethnicity differences in fear of crime (Baker & Mednick, 1990; Sacco, 1990), and youth's demographic characteristics (May & Dunway, 2000). Ferraro and LaGrange (1992) conducted a study using 10 types of criminal victimization's impact on fear of crime and found that independent of gender, youth had more fear of crime than older adults. An interesting finding of youth fear of crime was that parents could transfer their concern about victimization to their children and impact their levels of fear of crime (De Vaus & Wise 1996). This is also known as vicarious fear of crime.

Other adolescent studies during this period analyzed whether walking to and from school impacted youth's fear of crime (Baker & Mednick, 1990; Bowen & Bowen, 1999; Everett & Price, 1995). Several studies using youth samples identified the existence of fear of crime (Bowen & Bowen, 1999; Malek et al., 1998), while others found that girls

hold more fear of crime than boys (Brown & Benedict, 2004; May, 2001a; May & Dunway, 2000). In addition, a study conducted on young males found higher levels of fear among Blacks than Whites (May, 2001a; May & Dunway, 2000). Studies also found that past victimization experiences were more likely to be found among female youth than males (May & Dunway, 2000), and identified the relationship between demographic variables, neighborhood disorder, and youth fear of crime (May & Dunaway 2000). While the empirical evidence is mixed in explaining adolescent fear, this period of studies examined adolescent fear of crime, and attempts to explore adolescent fear of crime were still relatively less than those using adult samples. Furthermore, theoretically supported predictor variables were often ignored in fear of crime studies in this period.

However, the studies during this period were more creative and diverse and adopted new methodologies and measurement strategies (Lane et al., 2014). Noticeable work by Ferraro and LaGrange (1987) reviewed 40 studies that addressed several measurement and methodological issues. Later, Ferraro (1995b) made an outstanding contribution to advance the perceived risk and fear of crime perspective by developing a risk assessment framework. In his study, Ferraro (1995b), defined the conceptual and measurement distinction between perceived risk and fear of crime and emphasized the importance of including perceived risk in examining fear of crime.

According to Ferraro (1995b), studies lacked conceptual and measurement distinction between perceived risk and fear of crime, or otherwise studies attempted to examine the relationship between individuals and perceived risk or interchangeably used perceived risk as fear of crime (Brantingham et al., 1986; Taylor et al., 1986). Ferraro (1995b) identified the misconception between perceived risk and fear of crime as

problematic and affecting the analytical strength of the distribution and etiology of fear of crime. According to the author, fear of crime is a "negative emotional response developed by crime or symbols related with the crime" (Ferraro & LaGrange, 1987, p.73). In order to gain a fear reaction, one must recognize a situation as a potential threat which could be either real or imaginary, referred to as perceived risk, (Ferraro, 1995b), which is vital in understanding the fear of crime.

While proposing the risk assessment framework, Ferraro (1995b) provided a new path to fear of crime research. He suggested viewing perceived risk as the central factor in the causal relationship between predictor variables and fear of crime. His framework also states that perceived risk judgment is a process where individuals use personal information such as who they are and how they live, to interpret their risk of criminal victimization. Once any such perceived risk judgment is made, two forms of outcomes are likely to occur. Firstly, individuals may alter their conduct or settings to reduce high risk or secondly, individuals tend to become afraid (Ferraro, 1995b). For example, a person walking in the street and recognizing it as a high crime area, which could mean recognizing the potential threat in a situation is perceived risk and vital in developing fear, may have increased fear of crime or make behavioral changes. While the perceived risk predicts fear of crime, the judgment of perceived risk intensity is dependent upon one's theoretically supported factors such as demographic characteristics, delinquent behavior, peer delinquency, socio-economic status, neighborhood context, lifestyle, impulsivity, prior victimization experience, media, and social bonds.

In Ferraro's (1995b) terms, one's theoretically supported factors related to crime victimization allow the individual to interpret risk and make perceived risk judgments. For

example, according to the Code of the Street perspective, individuals tend to display nerve, which some may consider a fearless character, as a survival strategy in prospective crime victimization (Anderson, 1999). This phenomenon explains that although fear correlates with perceived risk, one's perceived risk judgment is based on social factors. Therefore, social factors that are related to crime victimization may influence perceived risk judgements (Melde, 2009).

Overall, the difference between most fear of crime studies and Ferraro's framework is the consideration of the perceived risk variable as central to the model. Ferraro urged future studies to examine fear of crime framework especially among adolescents.

Theoretical Studies

The theme of the third chronological period of 2001-2021 advanced the use of theoretical variables in assessing fear of crime. Fear of crime studies in this period integrated theoretical predictors of fear of crime. For example, studies examined the relationship between crime categories and fear of crime theoretical constructs (Fisher & May, 2009; Lane & Fox, 2013; Podana & Krulichova, 2021). In addition, studies included predictor variables like victim-offender relationship (Hilinski, 2009; Scott, 2003; Wilcox et al., 2007), incarcerated youth (May, 2001a; May et al., 2002; May et al., 2002), parental attachment (Cops, 2010; De Groof, 2008; May et al., 2002), parental concern for crime (DeGroof, 2008; May et al., 2002), and school security strategies (Schreck & Miller, 2003) to predict youth fear of crime.

Other studies focused on understanding peer groups, media (Cops, 2010), socialization differences (Bayley & Andersen, 2006; Cops 2010), emotional support

(Baek et al., 2019), parental relationship specially with the mother (Cops, 2010, 2013), neighborhood disorder and strain (May et al., 2015), youth delinquent behavior (Engstrom, 2021; Lane, 2006, 2009), buffering effect of delinquent lifestyle (Lane, 2006; 2009; May, 2001b), physical vulnerabilities (May, 2001b) and fear of crime victimization.

Ferraro's risk assessment model has been tested on adolescent fear of crime (Melde, 2007; Melde, 2009; Podana & Krulichova, 2021). Studies include for example, negative attitudes (Rader, 2004), delinquent peers (Melde, 2007), and low-self-control (Higgins et al., 2008) and how they impact youth fear of crime. In addition, the studies empirically supported the mediation effect of perceived risk on fear of crime (Farrall et al., 2009; Gainey et al., 2011; Jackson, 2004). However, despite these efforts, the number of studies using the risk assessment framework are still limited. Furthermore, according to Lane et al. (2014), other than findings such as adolescents having fear of crime, gender differences in fear, the distinction between adult and adolescent fear, and individual and environmental causal factors of fear, there has not been much advancement in youth fear of crime studies in the last two or more decades. Therefore, Lane et al. (2014) suggested that future studies advance adolescent fear of crime using various frameworks.

Models Used in Studying Fear of Crime

The three chronological themes have in common the use of one of four fear of crime study models. These four models are the vulnerability model (Hale, 1996; Lane et al., 2014; Pickett et al., 2021), the victimization model, the neighborhood context model (disorder and community concern) (Hale, 1996; Katz et al., 2003; Lane et al., 2014;

Markowitz et al., 2001; McGarrell et al., 1997; Pickett et al., 2021), and the subcultural diversity model (Katz et al., 2003; Markowitz et al., 2001; McGarrell et al., 1997).

Vulnerability Model

The first model, the vulnerability model, states that various views of one's vulnerability feelings are a product of the socialization process (Hale, 1996). This model explains that some population groups (based on gender, age, race and ethnicity, and socio-economic status, have higher feelings of vulnerability and fear of crime (Hale, 1996; Warr, 1985). The two sub-classifications of vulnerability model are physical vulnerability, such as masculinity and size, and social vulnerability (demographic characteristics). For example, studies of the vulnerability model using gender adolescent samples found that girls had a higher fear of victimization (May & Dunaway, 2000; May et al., 2015; Schreck & Miller, 2003).

Victimization Model

The second theoretical model, the victimization model, states that individuals who have had prior victimization experiences or self-perceptions of risk are likely to have fear of crime (Katz et al., 2003). In addition, victimization model studies have found consistent results with variables of gender, race and ethnicity, socio-economic status, and education (Melde, 2007). Therefore, it was recommended for studies using the victimization model to include both direct victimization (one's own victimization experience) and indirect victimization (knowing of someone else's victimization experience) for a better understanding of the fear of crime (Bursik & Grasmick, 1993; Garofalo, 1979; Skogan & Maxfield, 1981). In doing so, the model can explain which

sociodemographic characteristics are related to fear of crime and how criminal incidents develop shock waves and spread increasing fear levels.

Several studies of adolescent fear using the victimization model have found an association between past school victimization experiences (Schreck & Miller, 2003; Wilcox et al., 2005), and bullying victimization (Bachman et al., 2011; May & Dunaway, 2000; Melde & Esbensen, 2009; Schreck & Miller, 2003; Swartz et al., 2011; Wilcox et al., 2005) and with adolescent fear of victimization.

Neighborhood Context Model

The third model, the neighborhood context model, is sub-classified into the disorder and community concern models. According to the disorder model, individuals who perceive their surroundings as dilapidated show higher fear of crime views. For instance, residents of a neighborhood that is characterized by the disorder are more likely to have fear of crime (Skogan, 1990; Skogan & Maxfield, 1981). According to Warr (1990), disorder indicators may not have higher number of crimes but can contribute to resident's perception of increased fear of crime. Studies that utilized a disorder framework focused extensively on the physical, that is, the presence of garbage, graffiti, and abandoned properties, and social disorder like unsupervised youth, existence of drug markets, and homelessness, to predict fear of crime (LaGrange et al., 1992). Adolescent studies using the disorder framework found that neighborhood disorder impacts boys' and girls' fear of crime (Brunton-Smith & Sturgis 2011; May, 2001a; May & Dunaway, 2000), while other studies found the impact higher for girls (May, 2001b). Another adolescent study found that neighborhood disorder and strain impacted both genders' fear of crime (May et al., 2015).

The community concern model emphasizes the internal dynamics of the neighborhood (Lewis & Salem, 1986; Skogan & Maxfield, 1981), such as residential stability, neighborhood social cohesion, and neighborhood collective efficacy (Melde, 2007) to explain the fear of crime. Residential instability (Lewis & Salem, 1986; McGarrell et al., 1997) and social cohesion (Bellair, 1997; Bellair, 2000; Bursik, 2000) are found to have positively associated with fear of crime (Melde, 2007). However, this model is considered underdeveloped, with less literature support (Melde, 2007).

Subcultural Diversity Model

Finally, the subcultural diversity model proposes that individuals are likely to have fear when there is unfamiliarity with others' racial and ethnic, or cultural backgrounds (Bursik & Grasmick, 1993; Fishman et al., 1987). For example, an increased racial and ethnic or cultural heterogeneity develops the inability to predict other background individuals (Melde, 2007), so people rely on stereotypes for their assessment purposes which potentially causes fear of crime in them (Fishman et al., 1987; Melde, 2007). Therefore, studies utilizing the subcultural diversity model primarily included predictor variables as the sample's background characteristics, such as racial and ethnic or cultural identity (Melde, 2007).

The subcultural diversity model studies of fear found that racial groups make fear-based assessments based on stereotypes (Swigert & Farrell, 1976). To illustrate, a study conducted by Merry (1981) observed that Black and Chinese residents of the same community were found to have a fear of crime perceptions due to each other's presence in the community. In comparison, another study identified White residents holding fear of

crime due to the occupancy of racial and ethnic minorities (Chiricos et al., 1997; Liska et al., 1982; Lizotte & Bordua, 1980; Moeller, 1989).

In summary, these four models predict fear of crime based on an individual's demographic characteristics, immediate environment, and past experiences (Melde, 2007). Research that have used all four models in a single study, refer to it as the general model of fear of crime (Garofalo, 1979; Skogan & Maxfield, 1981). The general model of fear of crime is a cognitive model (Skogan & Maxfield, 1981) with three predictor components such as individual's traits (age, gender, vulnerability variables), settings (incivility, disorder, and cohesion), and awareness of criminal events (through personal experiences, other experiences, and media) impact on fear of crime.

Although the above models contributed in understanding the fear of crime among adults and adolescents, the lack of development of theoretical models using Ferraro's risk assessment framework to predict fear of crime is visible, which is the main drawback observed (Lane et al., 2014; Melde, 2007).

Limitations

Although a myriad of studies advanced the understanding of the fear of crime, several limitations still exist. Among fear of crime studies, a more significant proportion of studies focused on understanding adult samples (Goodey, 1994). In addition, the lack of theoretical inclusion in the studies models (Ferraro, 1995a; Gabriel and Greve, 2003; Innes & Fielding, 2002; Jackson, 2004) is a heavily identified drawback in the fear literature. Another significant limitation is the lack of advancement of fear studies using Ferraro's risk assessment framework (Melde, 2007). Finally, previous studies had issues

with the data, specifically with survey questions that failed to acquire responses about respondents' fear (Melde, 2007).

Contribution to the Literature

This research aimed to fill the fear of crime literature limitations and gaps by analyzing the relationship between adolescent social bonds, perceived risk of victimization, and fear of crime victimization using a sample of school students. From an objective standpoint, it is clear that social bonds like parental attachment, the belief of guilt for wrongdoings, school commitment, and involvement in legitimate activities correlate with the risk of victimization and delinquency. However, the previous studies failed to explore the effect of these social bonds on perceived risk and fear.

To avoid the measurement issues, unlike previous studies, this research utilized a dataset that adopted the measurement standards set forth by Ferraro and LaGrange (1987) and employed a multi-crime-specific set of survey questions to assess the sample has perceived risk and fear. Finally, this study by advancing adolescent fear of crime victimization, may contribute exclusively to adolescent and adult fear of crime literature. As Goodey (1994) stated, the analysis of youth fear may produce knowledge that can advance and reconceptualize the adult fear of crime literature.

Summary

Empirical studies have been conducted to identify the causes and correlation to explain fear of crime among citizens. However, there is a lack of theory-driven research regarding the evolution of fear (Ferraro, 1995a; Gabriel & Greve, 2003; Innes & Fielding, 2002; Jackson, 2004). Nevertheless, as mentioned above, research has established a valid explanation of how social bonds can interpret adolescents' perceived risk and fear.

Therefore, utilizing social bonds, this study disentangled the effect of social bonds on the perceived risk and fear of crime using Ferraro's risk assessment framework. Furthermore, the addition of social bond variables accounting for the youth's beliefs, commitment, involvement, and attachment enhanced the explanatory power of Ferraro's risk assessment framework of fear. In this regard, this research examined six research questions. Primarily, this research investigated the mediating role of youth perceived risk in the relationship between social bonds and fear of crime. Additional research questions were: (a) To what extent is the Black youth fear of crime related to their social bonds mediated by perceived risk of victimization? (b) To what extent is the Hispanic youth fear of crime related to their social bonds mediated by perceived risk of victimization? (c) To what extent is the White youth fear of crime related to their social bonds mediated by perceived risk of victimization? (d) To what extent is the male youth fear of crime related to their social bonds mediated by perceived risk of victimization? (e) To what extent is the female youth fear of crime related to their social bonds mediated by perceived risk of victimization?

CHAPTER II

LITERATURE REVIEW

This chapter provides an overview of the literature about the relationship between social bonds, perceived risk and fear of crime. The chapter begins with the conceptual differences between the perceived risk and fear of crime victimization. The later sections detail findings about demographic differences between the adolescent and adult fear of crime and the relationship between youth delinquency and fear of crime victimization. The chapter also discusses the theoretical propositions of Social Bond Theory which includes a discussion on elements such as attachment, belief, commitment, and involvement. Then a section in this chapter explores the fear of crime victimization literature around the element's attachment, belief, commitment, and involvement, which then is continued by discussing several measurement issues among the previous fear studies. The final section in the chapter identifies the limitations in the literature and summary of the chapter.

Understanding Perceived Risk of Victimization and Fear of Victimization

Perceived risk of victimization and fear of victimization are two distinct concepts (Ferraro, 1995b). While the perceived risk of victimization is a cognitive aspect regarding one's potential victimization, fear of crime is an affective dimension expressed as an emotion (Ferraro, 1995b; Ferraro & LaGrange; LaGrange, 1987; Warr, 1984). It means that the perceived risk of victimization is referred to as a cognitive recognition of the likelihood of one's victimization and essentially may not convert into an emotional response like fear (Ferraro, 1995b). In comparison, fear is an emotional response to assess future victimization (Warr, 2000).

Empirical studies have found a direct relationship between the perceived risk of victimization and fear of crime (Adolphs et al., 1999; Ferraro, 1995a; Ferraro, 1995b; Ferraro & LaGrange, 1987; Gainey et al., 2011; Krulichová & Podaná, 2019; LaGrange & Ferraro, 1989; LaGrange et al., 1992; Rountree, 1998; Whalen et al., 2001; Wilcox Rountree & Land, 1996), where perceived risk is a strong predictor and moderator of fear of victimization. Therefore, for one to express an emotion like fear, a strong association exists with the cognitive process, like the perceived risk of victimization (Ferraro, 1995b). While some studies stated that the perceived risk and fear of victimization are not necessarily highly correlated (Matthews et al., 2011), one may have a greater perceived risk of victimization but still do not possess fear (Ferraro, 1995b).

According to Ferraro's risk assessment framework, perceived risk provides a better understanding of the fear of victimization. Ferraro stated that a successful generation of fear reaction required an assessment of expected harm. This idea of assessing their expected harm is perceived risk (Ferraro, 1995b; Ferraro & LaGrange, 1987; Ferraro & LaGrange, 1992).

According to Ferraro (1995), situation refers to one's geographic location, actions, crime prevalence, prior victimization events, and reports. Ferraro (1995) argued that the actor's definition of a situation contributed to their evaluation of risk and fear. However, how actors define a situation depends on how they make sense of their world, such as through their social bonds. This study's perceived risk of victimization and fear of crime measures contain situational factors (for example, someone having their belongings stolen from them at school) to capture youth's risk and fear responses in a given situation. Furthermore, this study emphasized understanding how youth social

bonds and fear of crime victimization were mediated by the perceived risk of victimization in that given situation. However, the dominant attention given to social bonds, perceived risk, and fear of crime victimization in this study may overshadow the situational factors.

Demographics and Fear of Crime

Youth fear of crime is rarely studied (Lane, 2006; May, 2001a, 2001b; May et al., 2002), even though the offending rates and risk of victimization are greater for adolescents than the adult population (Rand & Catalano, 2007; Shaffer & Ruback, 2002). Furthermore, studies have focused on the adult population (Clemente & Kleiman, 1977; Conklin, 1975; Furstenberg, 1971; Skogan & Maxfield, 1981; Stafford & Galle, 1984), while lately studies targeted youth's fear of crime (May, 2001a; May et al., 2002; May & Dunaway, 2000; Schreck & Miller, 2003; Wallace & May, 2005;).

Studies that have used juvenile samples have consistently found that youth have higher fear of victimization than adults (Goodey, 1994; Lane, 2006; Lisa & May, 2005; May, 2001b; Melde, 2009), and young females are more fearful than young males (Bayley & Andersen, 2006; Cops, 2010). The majority of the studies stated that females (Ferraro, 1995b; Ferraro, 1996; Hale, 1996; Parker & Ray, 1990; Skogan & Maxfield, 1981), racial and ethnic minorities (Chiricos et al., 1997; Hale, 1996; Warr, 1994), elderly citizens (Ferraro, 1995b; Hale, 1996), low socio-economic status (Taylor & Covington, 1993; Warr, 1994), and low academic achievement (Parker & Ray, 1990; Skogan & Maxfield, 1981) have association with fear of crime.

While several studies have connected female fear of victimization with gender perceptions of sexual assault (Ferraro, 1995b; May, 2001b; May & Dunaway, 2000;

Schaeffer et al., 2006; Warr, 1984, 1985), other studies stated that one's race and ethnicity, age, socioeconomic status, and gender association with fear was due to their personal beliefs of vulnerability (Ferraro, 1995b; Franklin et al., 2008; Skogan & Maxfield, 1981; Zhang et al., 2009). Race and ethnicity in the context of adolescent fear are inconsistent (Bachman et al., 2011; Swartz et al., 2011; Wallace & May, 2005), while other studies have stated that Black and Hispanic students had increased fear of victimization at school (May, 2001; May & Dunaway, 2000; Schreck & Miller, 2003). It has also been found that Blacks and non-whites also reported higher rates of victimization (Stewart, 2003; Welsh, 2001).

Studies using perceived risk and fear of victimization have identified a significant correlation between youth perceived risk and fear. At the same time, no difference has been observed in females' fear of victimization (Ferraro, 1995b). It has also been observed that the sources of youth's context-specific perceived risk of victimization may differ from adults (Melde et al., 2016; Yuan & An, 2017; Yuan et al., 2015). For example, according to the empirical evidence the relative difference between youth and adult context-specific perceived risk sources was due to youth spending a greater proportion of time at school, therefore, youth perceived risk was more likely due to school factors such as structural disadvantage, delinquency rates, and geographic location (Perumean-Chaney & Sutton, 2013). While adults perceived risk was more likely influenced by their neighborhood conditions (Yuan & An, 2017; Melde et al., 2016). Other studies suggest that minority status like race and ethnicity, socioeconomic background (Lee, 1981; Skogan & Maxfield, 1981), and old age (Skogan & Maxfield,

1981; Stafford & Galle, 1984; Warr, 1984) also influenced the perceived risk and fear due to social and physical vulnerability.

Delinquency Relationship with Fear of Crime

In general, studies focusing on the fear of crime often hypothesize a proportional relationship between the risk of victimization and fear (May & Dunaway, 2000; May et al., 2002; Schreck & Miller, 2003; Wallace & May, 2005). It is because one's perceptions may cause their actions and feelings (Elli, 1991). For example, as proposed by fear of crime studies, a delinquent lifestyle encourages individuals to commit a crime and that increases their risk and fear of victimization (Melde, 2009).

According to researchers, the risk and protective factors in examining delinquent youth are the same factors helpful in predicting youth fear of victimization (Esbensen & Huizinga, 1991; Shaffer & Ruback, 2002). For example, since delinquent peer association is a risk factor for delinquency it is strongly correlated with increased fear of crime (Melde, 2007). It has also been reported that social bonds like parental attachment constrain delinquency and reduce fear of crime (May & Dunaway, 2000; Wallace & May, 2005; Wilcox et al., 2005).

Social Bond Theory, Perceived Risk of Victimization, and Fear of Crime

Social Bond Theory

Social Bond Theory is an important and one of the most-tested criminological theories (Kempf, 1993). Empirical, studies have found support for Social Bond Theory, whereby strong bonds have a negative influence on delinquent behavior (Hirschi, 1969; Kempf, 1993; Paternoster et al., 1983).

The social bonds in this study refer to the elements of attachment, belief, commitment, and involvement (Hirschi, 1969). Attachment refers to the close relationship between youth and parents and signifies parental supervision, parent-youth communication, youth time spent with parents, parents' knowledge of children's activities, and trust between parent and child (Hirschi, 1969; Huebner & Betts, 2002; Ozcan & Erbay, 2021; Paternoster et al., 1983). According to Hirschi (1969), irrespective of race, ethnicity, and socioeconomic status, a child with a greater parental attachment, will be concerned about parents' views and expectations. As such, this bond enforces control over the youth's behavior. Therefore, greater attachment to parents promotes the psychological presence of the parent during the time of temptation and constraints delinquency and risk of victimization (Hirschi, 1969; Homer et al., 2020; Wright et al., 2001).

Belief refers to accepting legal rules, conventional norms, moral order, and social norms (Booth et al., 2008; Homer et al., 2020; Jenkins, 1997; Laundra et al., 2002; Ozcan & Erbay, 2021). According to Gottfredson and Hirschi (1990), moral beliefs restrain one from adopting anti-social behavior because of the shame associated with delinquency. Therefore, belief is a moral element and is associated with offending behavior and risk of victimization (Huebner & Betts, 2002; Ozcan & Erbay, 2021; Paternoster et al., 1983).

Commitment refers to how one achieves goals by engaging conventional activities (Huebner & Betts, 2002; Ozcan & Erbay, 2021; Paternoster et al., 1983). For example, a youth with academic goals avoids delinquent behavior and risk of victimization or any other behavior that risks goals (Ozcan & Erbay, 2021). Commitment has been described as a rational element that binds individuals to conformity because of the valued

association in the past, or one may be concerned about their future, in case if associated with offending behavior (Becker, 1960; Hirschi, 1969). Studies using the commitment element have mostly employed educational achievement measures (Homer et al., 2020).

Involvement refers to the time one spends in legitimate activities like sports, religion, and neighborhood (Hirschi, 1969; Homer et al., 2020; Huebner & Betts, 2002; Ozcan & Erbay, 2021). Overall, involvement is a bond that indicates spending time and energy in legitimate activities. It is assumed that individuals investing their time and energy in legitimate activities will minimized their opportunity for the risk of victimization (Ozcan & Erbay, 2021; Paternoster et al., 1983).

It is understood that such a functional fear could be associated with one's social bonds. It is so because, socialization is one important domain where one learns about fear (Cole, 1964; May et al., 2002). For example, knowingly or unknowingly, parents in various situations may socialize adolescents to fear objects, unknown individuals, animals, and environmental signals (Marks, 1978). Parents also socialize their children to what they should not fear (May et al., 2002).

Although numerous studies utilized Social Bond Theory, the cumulative research summary on the theory is complicated due to the studies' adoption of various measures in its testing. To illustrate, the element attachment is operationalized in various methods. Some studies conventionally employed several items, while other studies measured attachment using several items related to peers, school, and family, and some studies even used single-item measure (Junger-Tas, 1992; Krohn & Massey, 1980; McGee, 1992). Regarding commitment, some studies used academic achievements and some studies confused bond over commitment (Costello & Vowell, 1999; Lauristen, 1994).

Despite Social Bond Theory's importance in criminological studies, significant criticism was also observed concerning the theory (Costello & Laub, 2020). Hirschi (1969) relied on a White male sample while developing the theory. Therefore, it is often argued that this theory does not explain gender and racial/ethnic differences in delinquent behavior (Alvarez, 2018; Costello & Laub, 2020; Krohn & Massey, 1980).

In the study examining social bonds, gender, and offending behavior, Rosenbaum (1987) found a greater explanatory power for Social Bond Theory in explaining gender differences. According to Rosenbaum (1987), females are socialized to conform to behavior more than males. Therefore, Social Bond Theory that relies on an individual's social bonds would be more suitable for females than males. However, in the context of race/ethnicity, empirical evidence is lacking to state that the Social Bond Theory does not predict offending behavior among Blacks or other minority groups (Costello & Laub, 2020). It is because most studies utilized one bond to study various racial/ethnic groups (Alvarez, 2018; Ozbay & Ozcan, 2006).

Social Bonds and Youth Fear of Victimization

Attachment and Youth Fear of Victimization

The study conducted by May et al. (2002) was a primary attempt to examine parental attachment impact on youth fear of victimization. Since then the variable has been the most used variable to predict fear of victimization (De Groof, 2008; May et al., 2002; Wallace & May, 2005). The attachment between parent and youth is important in developing the youth's self-concept and may also impact the youth's fear of crime (May et al., 2002). Several studies have found that greater parental attachment (May et al., 2002; Steinberg et al., 2011; Wallace & May, 2005), school attachment (Akiba, 2010;

Shreck & Miller, 2003), attachment to non-delinquent peers (Sacco & Nakhaie, 2007), and neighborhood attachment (Riger et al., 1981; Zhao et al., 2002) were associated with lowered fear of victimization.

Several studies found that attachment to parents and schools enhanced protection against the fear of victimization among girls (Dinkes et al., 2009; May & Dunaway, 2000; Schreck & Miller, 2003; Welsh, 2001; Wilcox et al., 2005), while others predicted low levels of fear of victimization among boys only (Podana & Krulichova, 2018; Wallace & May, 2005). Overall, the parental attachment impact on fear of victimization was found to be associated with gender, while age, race and ethnic background were not found to be statistically significant (Lisa & May, 2005).

Belief and Youth Fear of Victimization

One's beliefs can form risk perceptions, for example, mass media may contribute to one's belief in increased crime and fear of victimization (Jackson, 2005). Therefore, peers, family, and community can influence one's beliefs that may correlate with their perceived risk of victimization (Girling et al., 2000; Innes, 2004; Jackson, 2004). For example, studies have identified that a strong belief in fairness (Burrow & Apel, 2008; Payne et al., 2003; Schreck et al., 2003; Wilcox et al., 2009), and moral beliefs (Denkers & Winkel, 1998) were negatively correlated with youth fear of victimization. In addition, several studies used the concept of belief in the neighborhood context and found that community disorder beliefs contributed to fear of victimization (Bellair, 2000; Skogan & Maxfield, 1981). However, less is understood about how age, gender, race and ethnicity in the context of belief contribute to fear of victimization.

Commitment and Youth Fear of Victimization

Commitment is one of the less studied elements of social bonds in the context of fear. Most studies using commitment variables measured school commitment (Booth et al., 2008; O'zbay & O'zcan, 2008) and most studies have found a correlation between school commitment and youth fear of victimization (Burrow & Apel, 2008; Payne et al., 2003; Welsh, 2001; Wilcox et al., 2009). A study by Esbensen and Carson (2009) measured commitment to delinquent peers and found a positive association with youth fear of victimization.

Involvement and Youth Fear of Victimization

Involvement relationship with fear of victimization is mostly studied using the adult population, and most of those studies focused on the neighborhood (De Donder et al., 2005; Luengas & Rupah, 2008), and religious involvement (Ducksworth, 2014). Studies that have used youth samples have mostly employed school and religious involvement measures. For example, those studies found that religious involvement (Huebner & Betts, 2002; Schwadel & Anderson, 2022; Soenke et al., 2013), community involvement (Riger et al., 1981), and school involvement (Burrow & Apel, 2008; Welsh, 2001; Wilcox et al., 2009) reduced youth fear of victimization. While other studies found that religious involvement lowered the fear of property victimization (Bell, 2020), but not fear of criminal victimization (Matthews et al., 2011). Overall, religious involvement is a less studied variable in the fear literature (Matthews et al., 2011).

The use of social bond variables to predict fear of victimization is a relatively new area in the fear of victimization literature (Wallace & May, 2005). Several studies examining youth fear of victimization have used at least one element of Social Bond

Theory (for example, see, Cops, 2010, 2013; De Groof, 2008; May et al., 2002; May, 1999; May et al., 2002). These studies found a correlation between social bonds and fear of victimization. Some social bond studies clearly stated that intimate social bonds effectively attenuated fear responses (Charuvastra & CLoitre, 2008; Seong-Sik & Cheong Sun, 2022).

Measurement Issues

Measures of fear are a debated subject (Hale, 1996; Warr, 2000; Kanan & Pruitt, 2002). Many studies questioned the validity and reliability of the fear of crime measures (Bowling, 1993; Farrall et al., 1997; Skogan, 1981; Warr, 2000). Previous studies relied on a single question of fear (Baumer, 1985; Skogan & Maxfield, 1981). Other studies analyzed fear through cognitive evaluations of perceived risk (LaGrange et al., 1992; Wilcox Rountree & Land, 1996). A critique of studies of fear is that they suffer from measurement and data issues, such as studies using questions related to anxiety instead of perceptions of risk (Ferraro & LaGrange, 1987; Warr, 2000; Warr, 1994). In addition, several studies asked questions about safety over the fear of crime (Farrall et al., 1997; Hale, 1996; Krulichová & Podaná, 2019). The accepted standard to measure fear considers the level of fear and views regarding the perceived risk of victimization (Jackson, 2005).

Limitations

Recent studies examined adolescent fear of victimization (Cops, 2010; De Groof, 2008; Lane 2006, 2009; May 2001b; May & Dunaway, 2000; May et al., 2002; Melde, 2009; Melde & Esbensen, 2009; Melde et al., 2009a; Prezza & Pacilli 2007; Randa & Wilcox 2012; Swartz et al., 2011; Wallace & May 2005). However, the proportion of

studies examining adolescent fear using Ferraro's risk assessment framework are relatively few (Lane et al., 2014). A similar trend is observed among studies using social bonds as predictors of adolescent fear, where several studies explored how social bonds impact fear of victimization (Cops, 2010, 2013; De Groof, 2008; May et al., 2002; May, 1999; Wallace & May, 2005). However, fewer youth studies examined how social bonds predict the perceived risk of victimization and fear of victimization using Ferraro's risk assessment framework. Therefore, this research contributes to the literature by utilizing Ferraro's risk assessment framework and social bonds to examine adolescents' perceived risk and fear of crime.

Another limitation observed in the literature regards measurement issues. Since study findings could be substantially affected by measures of fear of victimization (May et al., 2002; Zani et al., 2001), it is vital to address the measurement issues. Two measurement approaches as suggested by Ferraro and LaGrange (1989), two Belgium scholars Cops (2010) and De Groof (2008) were found to be dominant in youth fear of victimization literature. The measurements approach proposed by Ferraro and LaGrange (1989) suggested studies have multiple indicators that measure participants worries regarding crime victimization (Ferraro, 1995b; LaGrange & Ferraro 1989). The two Belgium scholars suggested measurement strategy identify participants concerns about their safety and constrained behavior, and capture participant views about crime situation and police performance.

This empirical research relied on the Ferraro and LaGrange (1989) proposed measurement guidelines and used multi-item crime-specific questions to assess fear and perceived risk of victimization and extends the fear of crime literature by overcoming

measurement issues. Therefore, the objective of this study was to advance the perceived risk of victimization and fear area of research, which overall contributes to fear of crime literature.

Summary

This chapter suggests that the terms perceived risk of victimization and fear of crime victimization differ. Perceived risk is a cognitive dimension, and fear is an emotion that is typically an affective dimension regarding victimization (Ferraro, 1995b). Both are more likely to have a direct relationship (Krulichová & Podaná, 2019). In the context of demographics and fear, it is understood that fear of crime literature is dominated by adult sample studies despite youth being at a higher risk of victimization than adults (Rand & Catalano, 2007). Within the youth sample studies, it is consistently observed that females have more fear than male youth (Cops, 2010), and inconsistent with the youth fear in the domain of race/ethnicity (Bachman et al., 2011; Swartz et al., 2011). It is observed from youth studies that delinquency-associated factors such as having delinquent peers (Melde, 2007) and lack of protective social bonds (Wilcox et al., 2009) have a positive correlation with fear.

The chapter identified the elements of social bonds as attachment, commitment, belief, and involvement. The consistent variable analyzed in the literature is the parental attachment variable and generally the studies explain among the sample there are gender differences but no race/ethnic and age differences (Lisa & May, 2005). Studies using variable belief found that youth belief was a significant predictor of perceived risk and fear (Jackson, 2004; Wilcox et al., 2009). However, many studies lacked explanations regarding age, gender, and race/ethnic differences. Studies using the variable

commitment stated that the variable found a correlation between delinquency (Esbensen & Carson, 2009) and school commitment (Wilcox et al., 2009) with fear of victimization. The final variable, involvement, was found to be a strong predictor of youth fear, when involved in legitimate activities, youth have less fear (Burrow & Apel, 2008).

In the context of social bonds, perceived risk and fear, it is understood that studies rarely employed all the elements of social bonds to examine youth fear of crime victimization using Ferraro's risk assessment framework. It is also noticed that those studies included any social bond variables lacking explanations of race/ethnic and gender differences. The final section of this chapter explored how using a single item to capture perceived risk and fear affects the validity and reliability of the study measures, suggesting adopting a multi-item crime-specific questionnaire. The next chapter extends the discussion on research data and analytical strategies.

CHAPTER III

METHOD

The Current Study

It should be noted that this research was not focused on the minimization of fear of crime. Instead, it focused on the distribution and etiology of fear of crime. While most studies of fear want to know the causes of fear, this research sought to identify the reasons why someone chooses to refrain from exhibiting an emotion like perceived risk and fear of victimization using Social Bond Theory.

While social bonds endorse a guardianship against the risk of victimization (Felson, 1986), studies argue that a person with a lack of bonds holds increased fear of crime (Greider & Krannich, 1985; May et al., 2015). Therefore, drawing from the relationships identified by Social Bond Theory, this research examined how parental attachment, belief, commitment, and involvement impacted youth's perceived risk and fear of crime. In addition, elements of social bonds and other individual-level factors are important to study youth's perceived risk and fear of crime. Juveniles, unlike adults, lack decision-making capacity and are more likely to rely on their social bonds due to their nature of not questioning authority.

Research Questions

Fear of crime victimization literature has widely stated perceived risk as a strong predictor of fear, more likely a direct relationship (Adolphs et al., 1999; Ferraro, 1995a; Ferraro, 1995b; Ferraro & LaGrange, 1987; Gainey et al., 2011; Katz et al., 2003; Krulichová & Podaná, 2019; LaGrange & Ferraro, 1989; LaGrange et al., 1992; Morris et al., 1996; Wilcox Rountree & Land, 1996; Warr, 2000; Whalen et al., 2001). Besides,

fear can also occur due to the combination of factors that influence perceived risk (LaGrange et al., 1992; Warr, 2000; Warr & Stafford, 1983). For example, macro-level factors such as social disorder (LaGrange et al., 1992) and micro-level factors such as individuals' experiences of crime, whether property or violent (Warr & Stafford, 1983), can potentially influence the perceived risk of victimization and, thereby one's fear.

Since this research aimed to understand the relationship between social bonds, perceived risk, and fear of crime victimization from Ferraro's risk assessment framework perspective, research question one initially attempted to explore the direction of the relationship between the variable's social bonds, perceived risk, and fear of crime victimization. Research question one was based on Ferraro's risk assessment framework logic, that fear is an emotional reaction influenced by the cognitive aspect of perceived risk judgments that rely on social bonds.

The second, third, fourth, fifth, and sixth research questions aimed to reveal the racial/ethnic and gender differences in youth relationships between social bonds, perceived risk, and fear of crime victimization. Although it is known that race/ethnicity and gender are strong predictors of fear, less is known about the causes of racial/ethnic and gender differences of fear among adolescents. Therefore, research questions two, three, four, five, and six were developed to provide some context to explain racial/ethnic and gender fear differences among youth.

RQ1. Does youth perceived risk of victimization mediate the relationship between social bonds and fear of crime victimization?

H_{A1a}: Youth Perceived risk of victimization significantly mediate the relationship between parental attachment and fear of crime victimization.

H_{A1b}: Youth Perceived risk of victimization significantly mediate the relationship between school commitment and fear of crime victimization.

H_{A1c}: Youth Perceived risk of victimization significantly mediate the relationship between belief of guilt and fear of crime victimization.

H_{A1d}: Youth Perceived risk of victimization significantly mediate the relationship between involvement in legitimate activities and fear of crime victimization.

RQ2. Does the perceived risk of victimization mediate the relationship between Black youth's social bonds and fear of crime victimization?

H_{A2a}: The relationship between Black youth's parental attachment and fear of crime victimization is significantly mediated by the perceived risk of victimization.

H_{A2b}: The relationship between Black youth's school commitment and fear of crime victimization is significantly mediated by the perceived risk of victimization.

H_{A2c}: The relationship between Black youth's belief of guilt and fear of crime victimization is significantly mediated by the perceived risk of victimization.

HA2d: The relationship between Black youth's involvement in legitimate activities and fear of crime victimization is significantly mediated by the perceived risk of victimization.

RQ3. Does the perceived risk of victimization mediate the relationship between Hispanic youth's social bonds and fear of crime victimization?

HA3a: The relationship between Hispanic youth's parental attachment and fear of crime victimization is significantly mediated by the perceived risk of victimization.

HA3b: The relationship between Hispanic youth's school commitment and fear of crime victimization is significantly mediated by the perceived risk of victimization.

HA3c: The relationship between Hispanic youth's belief of guilt and fear of crime victimization is significantly mediated by the perceived risk of victimization.

HA3d: The relationship between Hispanic youth's involvement in legitimate activities and fear of crime victimization is significantly mediated by the perceived risk of victimization.

RQ4. Does the perceived risk of victimization mediate the relationship between White youth's social bonds and fear of crime victimization?

HA4a: The relationship between White youth's parental attachment and fear of crime victimization is significantly mediated by the perceived risk of victimization.

HA4b: The relationship between White youth's school commitment and fear of crime victimization is significantly mediated by the perceived risk of victimization.

HA4c: The relationship between White youth's belief of guilt and fear of crime victimization is significantly mediated by the perceived risk of victimization.

HA4d: The relationship between White youth's involvement in legitimate activities and fear of crime victimization is significantly mediated by the perceived risk of victimization.

RQ5. Does the perceived risk of victimization mediate the relationship between male youth's social bonds and fear of crime victimization?

HA5a: The relationship between male youth's parental attachment and fear of crime victimization is not mediated by the perceived risk of victimization.

HA5b: The relationship between male youth's school commitment and fear of crime victimization is not mediated by the perceived risk of victimization.

HA5c: The relationship between male youth's belief of guilt and fear of crime victimization is not mediated by the perceived risk of victimization.

HA5d: The relationship between male youth's involvement in legitimate activities and fear of crime victimization is not mediated by the perceived risk of victimization.

RQ6. Does the perceived risk of victimization mediate the relationship between female youth's social bonds and fear of crime victimization?

HA6a: The relationship between female youth's parental attachment and fear of crime victimization is not mediated by the perceived risk of victimization.

HA6b: The relationship between female youth's school commitment and fear of crime victimization is not mediated by the perceived risk of victimization.

HA6c: The relationship between female youth's belief of guilt and fear of crime victimization is not mediated by the perceived risk of victimization.

HA6d: The relationship between female youth's involvement in legitimate activities and fear of crime victimization is not mediated by the perceived risk of victimization.

Data and Sample

This researcher conducted a quantitative analysis using secondary data. The data for this research came from the National Evaluation of the Teens, Crime, and Community and the Community Works (TCC/CW) program, a self-report study of adolescents from several locations across the United States (Esbensen, 2005). This data offered several advantages in examining social bonds, perceived risk, and fear. Therefore, this data employed multi-item crime-specific measures to capture participants' views regarding their social bonds, perceived risk, and fear of crime victimization, enhancing the reliability and validity of the measures. Only several adolescent fear studies utilized crime-specific items (Lane, 2006; May et al., 2002; May, 2001; May & Dunaway, 2000; Schreck & Miller, 2003; Wallace & May, 2005). The sample for this data came from diverse backgrounds and participants, ensuring the external validity of the research findings.

Initially, the data had a total of 1,593 cases. The sample consisted of youth of ages ranging between 10 to 16 who were 51.4% females and 46.4% males. In the data 10.6% were Black youth, 40% were Hispanic/Latino youth, 29.6% were White youth, and

14.3% were other racial background youth. However, this research focused on Black, Hispanic/Latino, and White youth. The sections below explain the Teens, Crime, and the Community Works program, data collection strategy, variable measures, and plan of analysis.

Understanding the National Evaluation of Teens, Crime, and the Community Works Program

Teens, Crime, and the Community was established in 1985 by the National Crime Prevention Council (NCPC) and Street Law, Inc., as a law-related education curriculum (Esbensen & Burmeister, 2005). Later in 1996, the education curriculum was modified as Community Works by National Crime Prevention Council and Street Law, Inc., to set up an interactive learning guide (Esbensen & Burmeister, 2005). The Community Works program, a law-related education curriculum relevant to state teaching standards, aimed to enable cognitive and skill learning among elementary, middle, and high school youth and youth at community centers and juvenile detention facilities (Esbensen & Burmeister, 2005). In addition, the Community Works program adopted a risk and protective factor strategy, which consists of three components.

The first component is a collaborative course comprising 31 chapters with a total of 90 hours, related to victimization, drug abuse, conflict management, hate crimes, police and the community, and handgun violence (Esbensen, 2005). In the second component, professionals like law enforcement officers, attorneys, community volunteers, and counselors interact with students about the information and experiences referred to as Community Resource People (CRP), enhancing the phenomenon of role models among the students (Esbensen, 2005). The final component is action, where

students are involved in the project work, allowing them to execute what they learned (Esbensen, 2005).

Data Collection Strategy

This research used the data collected for the longitudinal evaluation of Teens, Crime, and the Community/Community Works program, which adopted a quasi-experimental design to select the treatment and control groups. While the Teens, Crime, and the Community/Community Works program is designed to minimize youth victimization and offending, the evaluation aims to examine the program's impact (Melde, 2005). The data that was collected for the program evaluation came from nine cities from four states: Arizona (Mesa, Phoenix, Sedona, Sierra Vista, Tucson, and Yuma), South Carolina (Florence), New Mexico (Las Cruces), and Massachusetts (New Bedford) (Esbensen & Burmeister, 2005). More details about data collection procedures are provided below.

Community Works program was implemented at a wide range of locations, including community centers, summer camps, schools (in and after school), and juvenile detention facilities, while data for the study came from the school students (Esbensen & Burmeister, 2005). The original study identified schools as a suitable venue for their evaluation over other venues due to their concerns about dosage, program fidelity, and attrition (Esbensen & Burmeister, 2005). Once the decision to eliminate other venues was achieved, the focus shifted to schools specifically since the program was implemented at elementary, middle, and high school levels (Esbensen & Burmeister, 2005). The program evaluators and stakeholders, that is, the National Crime Prevention Council and Street Law, Inc., determined that middle schools were appropriate sites and middle school

students, grades six to nine, were suitable samples to evaluate the Community Works program (Esbensen & Burmeister, 2005).

The schools used to collect data were selected by a purposive sampling technique. That means the original study considered schools eligible for data collection only when they offered Teens, Crime, and the Community/Community Works program at their site. Initially, 250 schools were assumed as possible sites for data collection. When these schools were contacted, the list of schools that met the evaluation criteria was reduced to 18 sites (Esbensen & Burmeister, 2005). When the principals of these 18 schools were contacted to see if their school was interested in an evaluation, they all displayed interest (Esbensen & Burmeister, 2005). In the later step, each school district was approached by the research and evaluation office, submitting a proposal to evaluate their school for Teens, Crime, and the Community/Community Works program (Esbensen & Burmeister, 2005). Three schools ultimately decided not to participate in the evaluation. Therefore, 15 schools were finalized to participate (Esbensen & Burmeister, 2005).

Once the schools were selected, the process of selecting classrooms began to create treatment and comparison groups. As a result, 98 classrooms were identified across the 15 schools (Esbensen, 2005). Although the number of treatment and comparison classrooms varied from one school to the other, at each school the number of treatment and comparison classrooms were matched to achieve a representative sample (Esbensen, 2005).

After the classroom matching process, parental consent was achieved before administering the survey to the participants (Esbensen, 2005). In obtaining consent forms, teachers were recruited to accomplish the collection of forms, and an incentive of \$2.00

was provided to teachers, irrespective of the parent's consent (Melde, 2007). In addition, for greater participation, teachers were awarded a bonus on a tiered system of \$30 if the response rate was between 90% to 100%, \$20.00 if the response was between 80% to 89.99%, and \$10 if between 70% to 79.99% (Melde, 2007). Students were also provided an incentive when they returned the consent form, irrespective of the response (Melde, 2007). Overall, of the 2,353 eligible students, a return rate of 84% (1,686) provided active consent, and 12% (291) responded as a refusal. A non-return rate of 16% (374) was obtained (Melde, 2007).

At the 15 schools, which consisted of 98 classrooms and an approximate total of 1,686 participants, the pre-test survey was monitored before the Teens, Crime, and the Community/Community Works (CW) program was implemented during the academic year 2004-2005 (Esbensen, 2005). The post-test was administered after the completion of the program. To fully implement the Community Works program of 31 lessons, approximately 90 hours were taken (Esbensen, 2005). The data for both waves were obtained using a group-administered classroom session strategy, where the research team read each question in the survey out loud, and the study participants answered the question (Melde, 2007). In total, the completion of the survey took a time of 40-45 minutes (Melde, 2007).

Three waves of data were collected. The first wave was collected in the fall of 2004, the second wave during the spring of 2005, and the final wave during the fall of 2005 (Melde, 2007). The current research utilized pre-test data collected during the fall of 2004 before the program (treatment) was implemented. The self-report questionnaire was administered to collect data gathered responses on various aspects such as perceptions of

exposure to risk and protective factors, community issues, law enforcement, offending behavior, social bonds, fear of crime, and demographic characteristics (Melde, 2007).

Variable Measurements

The data for this study was obtained from the survey of the National Evaluation of Teens, Crime, and the Community/Community Works program (Esbensen, 2005). Youth participants in this survey were asked about various demographic, behavioral, and perceptual measures (Esbensen, 2005). However, for this research, measures that tapped the elements of social bonds, attachment, belief, commitment, and involvement, perceived risk, fear of crime victimization, and demographic measures were considered.

Demographic Measures

Age, gender, and race/ethnicity were the three demographic measures used in this study analysis. The variable age is a continuous measure ranging between ages 10 to 16. The variable gender is a categorical measure with two categories: male and female. The category male was coded as one, and female was coded as two. Three racial/ethnic groups were included in this research analysis: White, Black, and Hispanic. Variable race/ethnicity was a categorical variable coded as one equal to White, two equal to Black, and three equal to Hispanic.

Parental Attachment Measures

The measurement of parental attachment consisted of four items. These items aimed to identify the level of attachment between the youth and the parent. The four items capturing parental attachment were: 1. "When I go someplace, I leave a note for my parents or call them to tell them where I am" (Esbensen, 2005), 2. "My parents know where I am when I am not at home or at school" (Esbensen, 2005), 3. "I know how to get

in touch with my parents if they are not at home” (Esbensen, 2005), 4. "My parents know who I am with if I am not at home” (Esbensen, 2005). These items have an ordinal level measurement with response choices: one equal to strongly disagree, two equal to disagree, three equal to neither agree nor disagree, four equal to agree and five equal to strongly agree.

Prior to the index creation, these items were checked for reliability analysis. The reliability analysis technique identified the Cronbach alpha value as .70, indicating the items with appropriate internal consistency. Later from the factor analysis results, it was found that the four items had a Kaiser-Meyer-Olkin (KMO) value of .65 (expected to have a value greater than .5) and were found to be significant in Bartlett's test with a value less than .001. The analysis developed one component with an Eigenvalue greater than one. All the items in the index were found to explain 52.87% variance. From the component matrix, it was observed that all four items were loaded in the component and had a value ranging between .61 to .82. Therefore, the construct parental attachment was formed using the computing strategy with the mean technique.

School Commitment Measures

Six items were used to explore the youth's commitment to the school. These items potentially asked the youth to indicate their commitment to school, academic achievement, and accomplishing homework. The six items were: 1. "Homework is a waste of time” (Esbensen, 2005), 2. "I try hard in school” (Esbensen, 2005), 3. "Education is so important that it's worth it to put up with things about school that I don't like” (Esbensen, 2005), 4. "In general, I like school” (Esbensen, 2005), 5. "Grades are very important to me” (Esbensen, 2005), 6. "I usually finish my homework” (Esbensen,

2005). These items had an ordinal level measurement with response choices: one equal to strongly disagree, two equal to disagree, three equal to neither agree nor disagree, four equal to agree and five equal to strongly agree. To make sure that all the items' responses flowed in common direction, one item (1. Homework is a waste of time) response choices were recoded/transformed.

Prior to the index creation, these items were checked for reliability analysis. Initially, the reliability analysis technique identified the Cronbach alpha value as .75, indicating an appropriate internal consistency. Later, the factor analysis results found that the six items measuring school commitment had a Kaiser-Meyer-Olkin (KMO) value of .82 (expected to have a value greater than .5) and were found to be significant in Bartlett's test with a value less than .001. The analysis developed one component with an Eigenvalue greater than one. All six items in the index were found to explain a 46.55% variance. From the component matrix, it was observed that all the items were loaded in the component and had a value ranging between .59 to .77. Therefore, the construct school commitment was formed using the computing strategy with the mean technique.

The Belief of Guilt Measures

The measurement belief of guilt consisted of 13 items to understand the perceptions of youth guilt towards delinquency commission. The items were characterized with statements: 1. "Skipped school without an excuse" (Esbensen, 2005), 2. "Lied, disobeyed or talked back to adults such as parents, teachers, or others" (Esbensen, 2005), 3. "Purposely damaged or destroyed property that did not belong to you" (Esbensen, 2005), 4. "Stole something worth less than \$50" (Esbensen, 2005), 5. "Stole something worth more than \$50" (Esbensen, 2005), 6. "Went into or tried to go

into a building to steal something” (Esbensen, 2005), 7. "Hit someone with the idea of hurting them” (Esbensen, 2005), 8. "Attacked someone with a weapon” (Esbensen, 2005), 9. "Used a weapon or force to get money or things from people” (Esbensen, 2005), 10. "Sold marijuana or other illegal drugs” (Esbensen, 2005), 11. "Used tobacco products” (Esbensen, 2005), 12. "Used alcohol” (Esbensen, 2005), 13. "Used marijuana or other illegal drugs” (Esbensen, 2005). These items had an ordinal level measurement with three response choices: one equal to not very guilty/bad, two equal to somewhat guilty/bad, and three equal to very guilty/bad.

In order to index the variable belief of guilt, all 13 items were subjected to reliability analysis. Results from the reliability analysis stated that the items had a Cronbach alpha value of .92, which is often considered a good value indicating good internal consistency. From the factor analysis, it was observed that the items had a Kaiser-Meyer-Olkin (KMO) value of .93 (expected to have a value greater than .5) and were found to be significant in Bartlett's test with a value less than .001. The analysis developed two components with Eigenvalue greater than one, and component two found to explain 64% variance. From the pattern matrix, it was observed that the nine items in component two were loaded well and had a value ranging between .21 to .77. Therefore, it was decided to delete six items with fewer coefficient values (less than .50).

The six items with lower coefficient values were deleted (1) attacked someone with a weapon, (2) used a weapon or force to get money or things from people, (3) sold marijuana or other illegal drugs, (4) used tobacco products, (5) used alcohol, (6) used marijuana or other illegal drugs. Later, a reliability analysis was conducted using the seven items. The reliability analysis found that the seven items had a Cronbach alpha

value of .86, which is often considered a good value indicating good internal consistency.

From the factor analysis, the Kaiser-Meyer-Olkin (KMO) value was observed as .90 (expected to have a value greater than .5) and found to be significant in Bartlett's test with a value less than .001. The analysis developed one component with an Eigenvalue greater than one. All seven items in the component were found to explain a 56.54% variance. From the component matrix, it was observed that all the items were loaded well and had a value ranging between .65 to .81. Therefore, the constructed belief of guilt was formed using the computing strategy with the mean technique.

Involvement in Legitimate Activities Measures

The index involvement in legitimate activities consists of five items to tap the respondent's involvement in conventional activities at school, church, workplace, and neighborhood. The five items that formed the index involvement in legitimate activities were: 1. "School activities or athletics" (Esbensen, 2005), 2. "Community activities such as scouts or athletic leagues" (Esbensen, 2005), 3. "Religious activities" (Esbensen, 2005), 4. "Your own family activities" (Esbensen, 2005), 5. "Job activities or employment" (Esbensen, 2005). The five items discussed in this section had dichotomous response categories, such as value zero equal to no and value one equal to yes. Due to the dichotomous nature of the variable, these items were not used to conduct factor analysis.

Prior to the index creation, these items were checked for reliability analysis. The reliability analysis technique identified the Cronbach alpha value as .50, indicating the items with minimal internal consistency. The construct involvement in legitimate activities was formed using the computing strategy with the mean technique.

Perceived Risk of Victimization Measures

Measurement of youth's perceived risk of victimization was captured using multiple items. These multiple questions focused on exploring how youth viewed their potential victimization in various criminal scenarios. The multiple items in the survey questionnaire that captured the perceived risk of victimization were constructed by Ferraro (1995) for his nationally representative study.

The questions used to measure youth's perceived risk of victimization were: 1. "Being robbed or mugged" (Esbensen, 2005), 2. "Being attacked by someone with a weapon" (Esbensen, 2005), 3. "Being attacked or threatened on your way to or from school" (Esbensen, 2005), 4. "Having your things stolen from you at school" (Esbensen, 2005), 5. "Being attacked or threatened at school" (Esbensen, 2005), 6. "Having someone break into your house while you are there" (Esbensen, 2005), 7. "Having someone break into your house while you are away" (Esbensen, 2005), 8. "Having your property damaged by someone" (Esbensen, 2005). These items had an ordinal level measurement with response choices: one equal to not at all likely, two equal to a little likely, three equal to somewhat likely, four equal to likely, and five equal to very likely.

In order to index the variable perceived risk of victimization, all eight items were subjected to reliability analysis. Results from the reliability analysis stated that the items had a Cronbach alpha value of .90, which is often considered a good value indicating good internal consistency. Later, factor analysis was conducted using the eight items. From the factor analysis, it was observed that the items had a Kaiser-Meyer-Olkin (KMO) value of .90 (expected to have a value greater than .5) and were found to be significant in Bartlett's test with a value less than .001. The analysis developed one

component with an Eigenvalue greater than one. All the items in the index were found to explain a 58.38% variance. From the component matrix, it was observed that all the items were loaded in the component and had a value ranging between .66 to .83. Therefore, the construct perceived risk of victimization was formed using the computing strategy with the mean technique.

Fear of Crime Victimization Measures

Measurement of youth fear of crime victimization was captured using several items. These items focused on exploring youth fear in a given criminal scenario. The items in the survey questionnaire that captured the fear of crime victimization were constructed by Ferraro (1995) for his nationally representative study. The questions used to measure youth fear of crime victimization were: 1. "Being robbed or mugged" (Esbensen, 2005), 2. "Being attacked by someone with a weapon" (Esbensen, 2005), 3. "Being attacked or threatened on your way to or from school" (Esbensen, 2005), 4. "Having your things stolen from you at school" (Esbensen, 2005), 5. "Being attacked or threatened at school" (Esbensen, 2005), 6. "Having someone break into your house while you are there" (Esbensen, 2005), 7. "Having someone break into your house while you are away" (Esbensen, 2005), 8. "Having your property damaged by someone" (Esbensen, 2005). These items had an ordinal level measurement with response choices: one equal to not at all afraid, two equal to a little afraid, three equal to somewhat afraid, four equal to afraid, and five equal to very afraid.

In order to index the variable fear of crime victimization, all eight items were subjected to reliability analysis. Results from the reliability analysis stated that the items had a Cronbach alpha value of .90, which is often considered a good value indicating

good internal consistency. Later, factor analysis was conducted using the eight items. From the factor analysis, it was observed that the items had a Kaiser-Meyer-Olkin (KMO) value of .89 (expected to have a value greater than .5) and were found to be significant in Bartlett's test with a value less than .001. The analysis developed one component with an Eigenvalue greater than one. All the items in the index were found to explain a 59.68% variance. From the component matrix, it was observed that all the items were loaded in the component and had a value ranging between .62 to .84. Therefore, the construct perceived risk of victimization was formed using the computing strategy with the mean technique.

Sample Characteristics

Initially, before addressing the missing values, the data had 1,686 cases. After the missing values were addressed using the case-wise deletion technique, the total number of cases obtained was 1,208. Descriptive statistics (see Table 1) explored from variables age, gender, and race/ethnicity explain that the participants' ages ranged from 10 to 16, with an average age of 12 (mean=12.25 and SD= .935). In this study sample, 24.7% of participants were aged 10 and 11, 34.8% were 12, 31% were 13, and 9.5% were 14, 15, and 16. This study sample had slightly more females (53%) than males (47%). In terms of race and ethnicity, 38.3% were non-Hispanic White, 13% were Black, and 48.7% were Hispanic/Latinos.

Table 1*Descriptive Statistics for Demographic Variables*

Demographic Variable	Frequency	Percent
Gender		
Male	568	47.0%
Female	640	53.0%
Race/Ethnicity		
White	463	38.3%
Black	157	13.0%
Hispanic	588	48.7%
	Range	Mean (SD)
Age	10-16	12.25 (.93)

N = 1208

The mean and standard deviation of the scale measure variables are presented in Table 2. Variable perceived risk of victimization (mean=2.18 and SD=.90), fear of crime victimization variable (mean=2.95 and SD=1.04), variable parental attachment (mean=4.04 and SD=.77), variable school commitment (mean=3.92 and SD=.65) had a range of values between one to five. Whereas variable belief of guilt (mean=2.58 and SD=.45) had a range of values between one to three, and variable involvement in legitimate activities (mean=.51 and SD=.27) had a range of values between point zero to one.

Table 2*Descriptive Statistics Non-Demographic Variables*

Measures	Range	Mean	SD
Perceived Risk of Victimization	1-5	2.18	.90
Fear of Crime Victimization	1-5	2.95	1.04
Parental Attachment	1-5	4.04	.77
School Commitment	1-5	3.92	.65
Belief of Guilt for Wrongdoings	1-3	2.58	.45
Involvement in Legitimacy Activities	.0-1.0	.51	.27

N = 1208

Summary

This research utilized pre-test data that was initially collected for the National Evaluation of the Teens, Crime, and community/Community Works program in the fall of 2004. The data was collected from 15 schools located in four states: Arizona, South Carolina, New Mexico, and Massachusetts. The data collected tapped various aspects of the participant's behavioral and perceptual measures, including their demographic characteristics. The total number of cases obtained after the data cleaning was 1208, which consisted of males (47%), females (53%), White (38.3%), Black (13%), and Hispanic (48.7%) youth ranging in ages between 10 to 16. In addition, the variables in the study, such as parental attachment, school commitment, the belief of guilt, involvement in legitimate activities, perceived risk, and fear of crime victimization, were indexed using relevant items.

CHAPTER IV

RESULTS

The core aim of this research was to understand social bonds and youth fear of crime victimization. By utilizing Ferraro's framework, this research attempted to examine the causal relationship between elements of social bonds, perceived risk of victimization, and youth fear of crime victimization. According to Ferraro's (1995b) framework, perceived risk of victimization has a strong direct correlation with fear of crime and plays a central role in an individual's decision making related to risk interpretation and fear of crime. As mentioned in previous chapters, elements of social bonds are assumed to contribute to the youth's interpretation of their perceived risk and impact their fear of crime victimization. In other words, the perceived risk of victimization may mediate the youth's social bonds and fear of crime victimization.

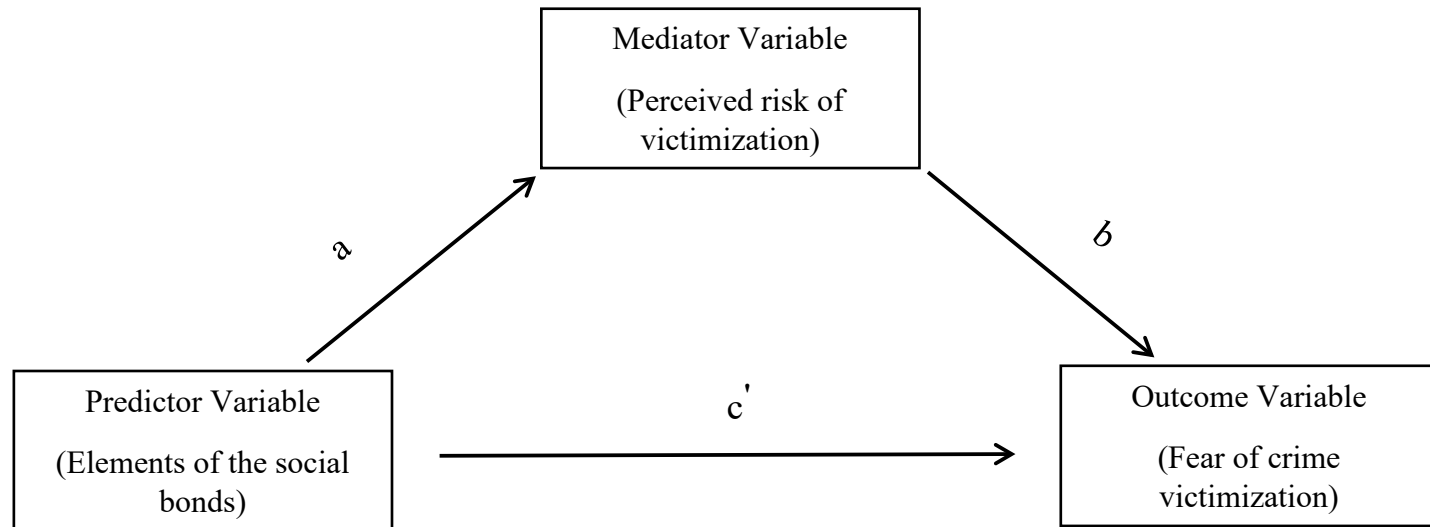
This research included social bond elements such as parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities to understand their causal relationship with the perceived risk of victimization and fear of crime. This study's research questions hypothesized that youth in general, and in particular youth across various racial/ethnic and gender backgrounds who had higher social bonds identified themselves with less perceived risk of victimization and fear of crime victimization. Having higher social bonds prevent youth from being exposed to the risk of victimization. As a result, individuals are less likely to anticipate their potential victimization and have minimized fear of crime emotions. However, the data must be analyzed to make conclusions on the developed research questions.

Ferraro's risk assessment framework in this research demands statistical techniques that explain the central role of the perceived risk of victimization between the independent variable (the elements of the social bonds) and the dependent variable (fear of crime victimization). Mediation Analysis was identified as a suitable statistical technique for explaining the relationship between this study's variables. Mediation Analysis aims to explain causal or non-causal relationships between the study variables. For example, a significant mediation relationship between the variables in a study suggests a causal relationship between the independent, mediating, and dependent variables. Therefore, this research employed a Mediation Analysis technique with 5000 bootstrap samples to analyze the data. Six models were developed to answer six research questions. The following sections in this chapter discuss the findings of the research.

Description of the Mediation Modeling Procedure

The main objective of this study was to investigate the causal relationship between social bonds, perceived risk of victimization, and fear of crime victimization. This research utilized Process Macro version 4.3 software to test the proposed hypotheses. Andrew F. Hayes (2018) developed Process Macro version 4.3, a user-friendly version for R, SAS, and SPSS software. Mediation Analysis explains the causal relationship between the predictor and outcome variable through the mediator variable (Hayes, 2018). Often studies use this method to understand how the cognitive or biological variables mediate the relationship between the predictor and outcome variable (Hayes, 2018). Mediation Analysis holds the principles of path analysis and OLS regression to describe direct, indirect, and total effects between the considered variables.

Results from Mediation Analysis allow the research to identify boundary conditions of an effect. For example, Mediation Analysis in this study explained how the elements of the social bonds affected fear of crime victimization, referring to it as a direct effect, and how the elements of the social bonds affected fear of crime victimization through the perceived risk of victimization known as indirect effect (see Figure 1). A significant indirect/mediation effect indicates the causal relationship between the variables. An indirect effect in Mediation Analysis is statistically significant if its bootstrap lower limit confidence interval and upper limit confidence interval do not contain a zero value. While this study's primary focus was on understanding the indirect effect, however, with reference to the direct effect value among the variables, this study explored whether the indirect effect was a full or partial mediation.

Figure 1*Simple Mediation Model*

Note: Indirect/mediation Effect = $a \times b$; Direct Effect = c' ; Total Effect = $c = a \times b + c'$

Understanding the Mediation Effect of the Perceived Risk of Victimization on Youth Social Bonds and Fear of Crime Victimization

Research Question One

Research question one (Does youth perceived risk of victimization mediate the relationship between social bonds and fear of crime victimization), aimed to examine the role of the perceived risk of victimization as a mediator between the youth's social bonds and fear of crime victimization. Four research hypotheses under research question one stated the perceived risk of victimization as a significant mediator between the youth's social bonds (such as parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities) and fear of crime victimization. Mediation Analysis was the statistical technique employed to investigate these hypotheses.

Table 3 and Figure 2a show the significant mediation results (indirect effect). It was found that the youth who differed by one unit in their parental attachment were likely to differ by -.03 units (Bootstrap CI 95= -.057 and -.002) in their reported fear of crime victimization. This result suggests that youth with higher parental attachment had less perceived risk of victimization, leading to a low fear of crime victimization. Therefore, the first null hypothesis under research question one was rejected, indicating that the youth perceived risk of victimization as a significant mediator of parental attachment and fear of crime victimization. Results indicated a full mediation effect, which means that higher parental attachment increased fear of crime victimization without the mediation of perceived risk of victimization. However, when the perceived risk of victimization

mediated parental attachment, the result decreased youth fear of crime victimization, referring to it as the full mediation effect.

Significant mediation results (indirect effect) on Table 3 and Figure 2b indicate that the youth who differed by one unit in their school commitment were likely to differ by -.04 units (Bootstrap CI 95= -.078 and -.013) in their reported fear of crime victimization. This result suggests that youth with higher school commitment had less perceived risk of victimization, which leads to a low fear of crime victimization. Therefore, null hypothesis two under research question one was rejected, indicating that the youth perceived risk of victimization as a significant mediator of school commitment and fear of crime victimization. Results indicated a full mediation effect.

Non-significant mediation results (indirect effect) on Table 3 and Figure 2c indicate that the youth who differed by one unit in their belief of guilt for wrongdoings were likely to differ by -.02 units (Bootstrap CI 95= -.064 and .024) in their reported fear of crime victimization. Since the results were statistically not significant, null hypothesis three under research question one failed to reject, indicating that the youth perceived risk of victimization as a non-significant mediator of belief of guilt for wrongdoings and fear of crime victimization.

Non-significant mediation results (indirect effect) on Table 3 and Figure 2d indicate that the youth who differed by one unit in their involvement in legitimate activities were likely to differ by -.03 units (Bootstrap CI 95= -.100 and .044) in their reported fear of crime victimization. Since these results were statistically insignificant, null hypothesis four under research question one failed to reject, indicating that the youth

perceived risk of victimization as a non-significant mediator of involvement in legitimate activities and fear of crime victimization.

Overall, the Model 1 Mediation Analysis results developed to answer research question one found mixed support suggesting that the youth's perceived risk of victimization significantly mediated the relationship between parental attachment, school commitment, and fear of crime victimization, but not between belief of guilt for wrongdoings, involvement in legitimate activities, and fear of crime victimization. Model 1 findings explain that among youth in general (youth from male, female, and racial/ethnic backgrounds), higher parental attachment and school commitment reduced the perceived risk of victimization and fear of crime victimization significantly, which is consistent with previous studies (for example, see Burrow & Apel, 2008; Payne et al., 2003; Steinberg et al., 2011; Wallace & May, 2005; Welsh, 2001; Wilcox et al., 2009). The elements, belief of guilt for wrongdoings and involvement in legitimate activities among youth in general, also reduced their fear of crime through perceived risk of victimization. However, these results were not significant but are consistent with the previous study findings (for example, see Burrow & Apel, 2008; Denkers & Winkel, 1998; Ducksworth, 2014; Luengas & Rupah, 2008; Schwadel & Anderson, 2022).

Table 3

Mediation Effect of Perceived Risk of Victimization Between Elements of Youth Social Bonds and Fear of Crime Victimization (Model 1)

IV	M	DV	IE	Boot SE	Boot LLCI	Boot ULCI
Parental Attachment	Perceived Risk of Victimization	Fear of Crime Victimization	-.03*	.01	-.057	-.002
School Commitment	Perceived Risk of Victimization	Fear of Crime Victimization	-.04*	.01	-.078	-.013
Belief of Guilt for Wrongdoings	Perceived Risk of Victimization	Fear of Crime Victimization	-.02	.023	-.064	.024
Involvement in Legitimate Activities	Perceived Risk of Victimization	Fear of Crime Victimization	-.03	.04	-.100	.044

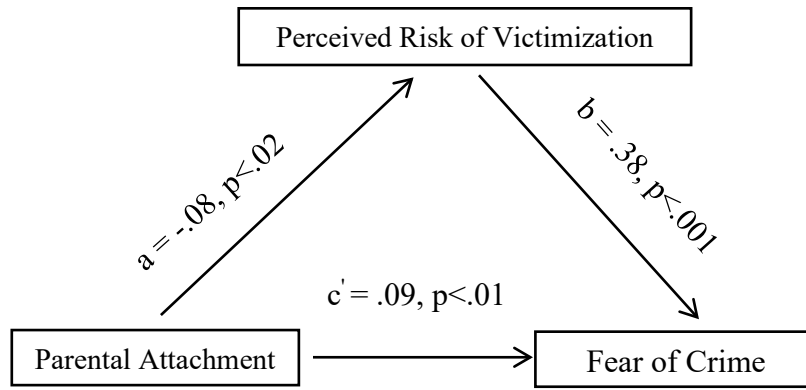
N= 1208

IV = independent variable, M = mediator, DV = dependent variable, IE = indirect effect, Boot SE = bootstrap standard error, Boot LLCI = bootstrap lower limit confidence interval, Boot ULCI = bootstrap upper limit confidence interval

* = significant result at .05

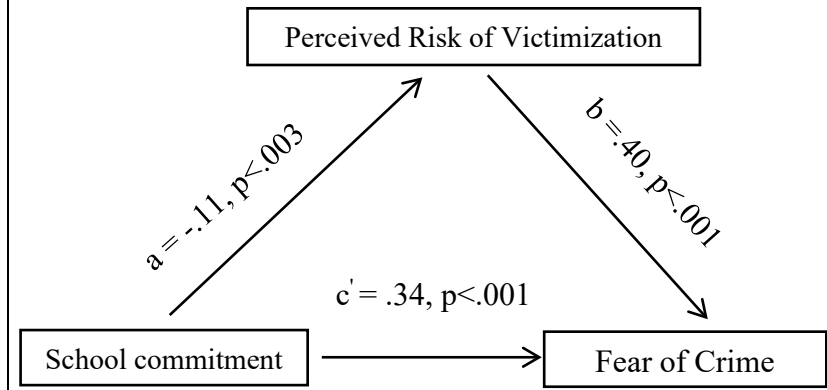
Figure 2

Mediation Analysis Results for Youth Social Bonds, Perceived Risk of Victimization and Fear of Crime Victimization

Figure 2a: H_{A1a}:

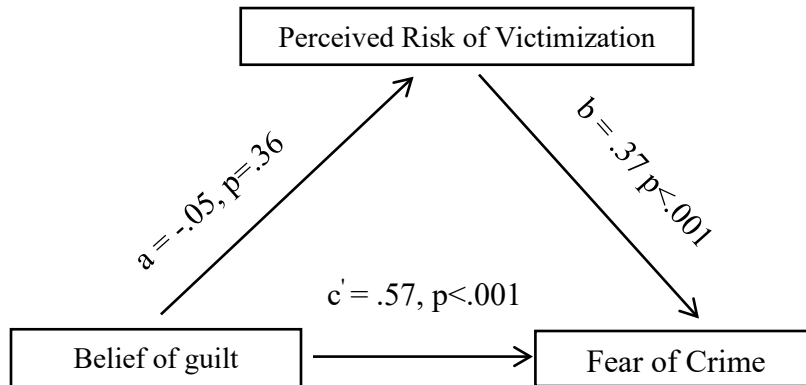
Indirect Effect = $-.03^*$, 95% CI $[-.057, -.002]$

Direct Effect = $.09, p < .01$; Total Effect = $.06, p = .10$

Figure 2b: H_{A1b}:

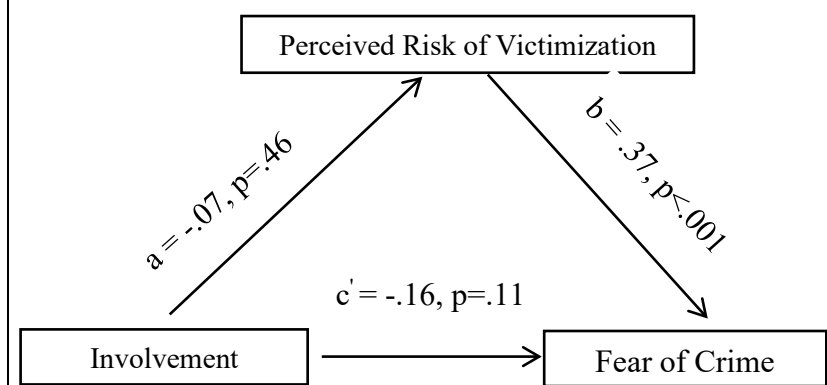
Indirect Effect = $-.04^*$, 95% CI $[-.078, -.013]$

Direct Effect = $.34, p < .001$; Total Effect = $.30, p < .001$

Figure 2c: H_{A1c}:

Indirect Effect = $-.02$, 95% CI $[-.065, .024]$

Direct Effect = $.57, p < .001$; Total Effect = $.55, p < .001$

Figure 2d: H_{A1d}:

Indirect Effect = $-.03$, 95% CI $[-.100, .044]$

Direct Effect = $-.16, p = .11$; Total Effect = $-.20, p = .08$

Understanding the Mediation Effect of the Perceived Risk of Victimization on Black Youth Social Bonds and Fear of Crime Victimization

Research Question Two

Research question two (Does the perceived risk of victimization mediate the relationship between Black youth's social bonds and fear of crime victimization?) aimed to examine the role of the perceived risk of victimization as a mediator between Black youth's social bonds and fear of crime victimization. Four research hypotheses under research question two stated the perceived risk of victimization as a significant mediator between the Black youth's social bonds (such as parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities) and fear of crime victimization. The technique of select cases was utilized to select only Black youth in the sample for this research question analysis, and Mediation Analysis was the statistical technique employed.

A Mediation Analysis was conducted to examine whether the perceived risk of victimization mediated Black youth's parental attachment and fear of crime victimization. The results of the Mediation Analysis (indirect effect) (see Table 4 and Figure 3a) indicated that perceived risk of victimization was not a significant mediator of Black youth's parental attachment and fear of crime victimization ($a \times b = .00$, Bootstrap CI95 = $-.065$ and $.060$). Since these results were statistically insignificant, the null hypothesis one under research question two failed to reject.

A Mediation Analysis was conducted to examine whether the perceived risk of victimization mediated Black youth's school commitment and fear of crime victimization.

The results of the Mediation Analysis (indirect effect) (see Table 4 and Figure 3b) suggest that perceived risk of victimization was not a significant mediator of Black youth's school commitment and fear of crime victimization ($a \times b = -.08$, Bootstrap CI95 = $-.200$ and $.008$). Since these results were statistically insignificant, null hypothesis two under research question two failed to reject.

A Mediation Analysis was conducted to examine whether the perceived risk of victimization mediated Black youth's belief of guilt for wrongdoings and fear of crime victimization. The results of the Mediation Analysis (indirect effect) (see Table 4 and Figure 3c) revealed that perceived risk of victimization was not a significant mediator of Black youth's belief of guilt for wrongdoings and fear of crime victimization ($a \times b = -.00$, Bootstrap CI95 = $-.103$ and $.085$). Since these results were statistically insignificant, null hypothesis three under research question two failed to reject.

A Mediation Analysis was conducted to examine whether the perceived risk of victimization mediated Black youth's involvement in legitimate activities and fear of crime victimization. The results of the Mediation Analysis (indirect effect) (see Table 4 and Figure 3d) indicated that perceived risk of victimization was not a significant mediator of Black youth's involvement in legitimate activities and fear of crime victimization ($a \times b = .04$, Bootstrap CI95 = $-.155$ and $.230$). Since these results were statistically insignificant, the null hypothesis four under research question two failed to reject.

Overall, the Model 2 Mediation Analysis results to answer research question two were not supportive of the perceived risk of victimization for its mediating role between Black youth social bonds (parental attachment, school commitment, belief of guilt for

wrongdoings, and involvement in legitimate activities) and fear of crime victimization. None of the Black youth social bond elements significantly influenced the perceived risk of victimization and fear of victimization could be due to the small sample size of Black youth (157) in this study. Another vital reason contributing to these results was the inability of social bond elements to explain youth behavior across various racial/ethnic backgrounds (Alvarez, 2018; Costello & Laub, 2020).

Table 4

Mediation Effect of Perceived Risk of Victimization Between Elements of Black Youth Social Bonds and Fear of Crime Victimization (Model 2)

IV	M	DV	IE	Boot SE	Boot LLCI	Boot ULCI
Parental Attachment	Perceived Risk of Victimization	Fear of Crime Victimization	.00	.03	-.065	.060
School Commitment	Perceived Risk of Victimization	Fear of Crime Victimization	-.08	.05	-.200	.008
Belief of Guilt for Wrongdoings	Perceived Risk of Victimization	Fear of Crime Victimization	-.00	.04	-.103	.085
Involvement in Legitimate Activities	Perceived Risk of Victimization	Fear of Crime Victimization	.04	.09	-.155	.230

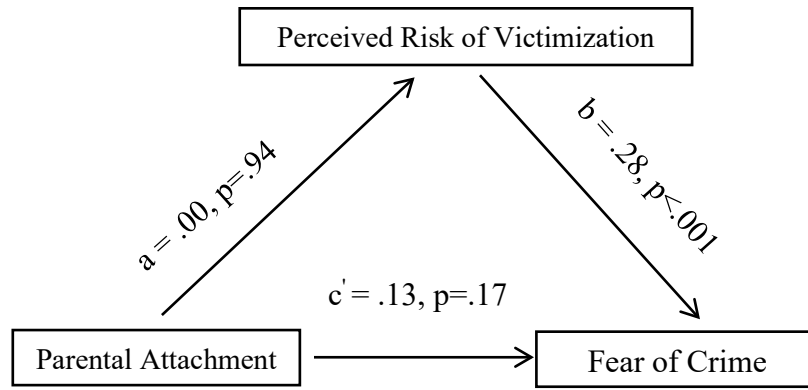
N=157

IV = independent variable, M = mediator, DV = dependent variable, IE = indirect effect, Boot SE = bootstrap standard error, Boot LLCI = bootstrap lower limit confidence interval, Boot ULCI = bootstrap upper limit confidence interval

* = significant result at .05

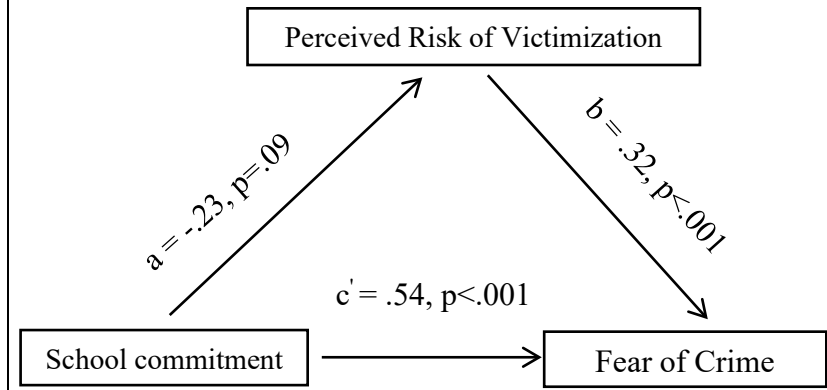
Figure 3

Mediation Analysis Results for Black Youth Social Bonds, Perceived Risk of Victimization and Fear of Crime Victimization

Figure 3a: H_{A2a}:

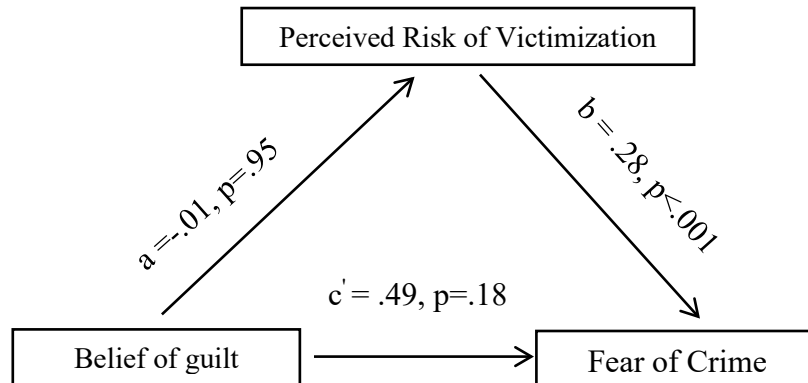
Indirect Effect = .00, 95% CI [-.065, .060]

Direct Effect = .13, $p = .17$; Total Effect = .13, $p = .18$

Figure 3b: H_{A2b}:

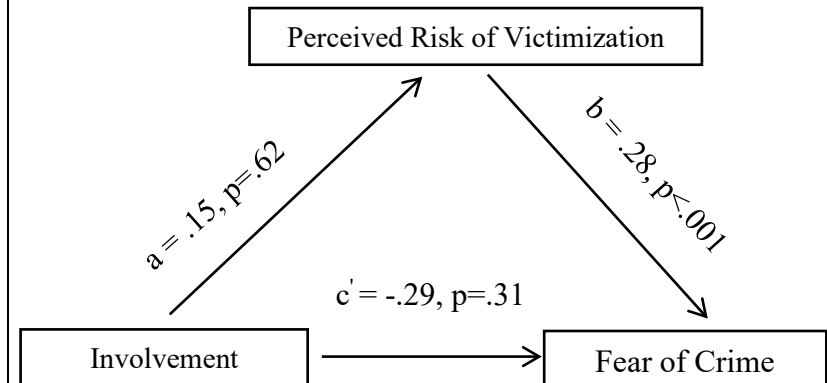
Indirect Effect = -.08, 95% CI [-.200, .008]

Direct Effect = .54, $p < .001$; Total Effect = .47, $p < .001$

Figure 3c: H_{A2c}:

Indirect Effect = -.00, 95% CI [-.103, .085]

Direct Effect = .49, $p = .18$; Total Effect = .49, $p < .01$

Figure 3c: H_{A2d}:

Indirect Effect = .04, 95% CI [-.155, .230]

Direct Effect = -.29, $p = .31$; Total Effect = -.24, $p = .41$

Understanding the Mediation Effect of the Perceived Risk of Victimization on Hispanic Youth's Social Bonds and Fear of Crime Victimization

Research Question Three

Research question three (Does the perceived risk of victimization mediate the relationship between Hispanic youth's social bonds and fear of crime victimization?) aimed to examine the role of the perceived risk of victimization as a mediator between the Hispanic youth's social bonds and fear of crime victimization. Four research hypotheses under the third research question stated the perceived risk of victimization as a significant mediator between the Hispanic youth's social bonds (such as parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities) and fear of crime victimization. The technique of select cases was utilized to select only Hispanic youth in the sample for this research question, and Mediation Analysis was the statistical technique employed.

A Mediation Analysis was conducted to examine whether the perceived risk of victimization mediated the Hispanic youth's parental attachment and fear of crime victimization. The results of the Mediation Analysis (indirect effect) (see Table 5 and Figure 4a) indicated that perceived risk of victimization was not a significant mediator of Hispanic youth's parental attachment and fear of crime victimization ($a \times b = -.02$, Bootstrap CI95 = $-.063$ and $.003$). Since these results were statistically insignificant, the null hypothesis one under research question three failed to reject.

A Mediation Analysis was conducted to examine whether the perceived risk of victimization mediated the Hispanic youth's school commitment and fear of crime victimization. The results of the Mediation Analysis (indirect effect) (see Table 5 and

Figure 4b) suggest that perceived risk of victimization was not a significant mediator of Hispanic youth's school commitment and fear of crime victimization ($a \times b = -.03$, Bootstrap CI95 = $-.079$ and $.007$). Since these results were statistically insignificant, the null hypothesis two under research question three failed to reject.

A Mediation Analysis was conducted to examine whether the perceived risk of victimization mediated the Hispanic youth's belief of guilt for wrongdoings and fear of crime victimization. The results of the Mediation Analysis (indirect effect) (see Table 5 and Figure 4c) revealed that perceived risk of victimization was not a significant mediator of Hispanic youth's belief of guilt for wrongdoings and fear of crime victimization ($a \times b = -.00$, Bootstrap CI95 = $-.063$ and $.051$). Since these results were statistically insignificant, the null hypothesis three under research question three failed to reject.

A Mediation Analysis was conducted to examine whether the perceived risk of victimization mediated the Hispanic youth's involvement in legitimate activities and fear of crime victimization. The results of the Mediation Analysis (indirect effect) (see Table 5 and Figure 4d) indicated that perceived risk of victimization was not a significant mediator of Hispanic youth's involvement in legitimate activities and fear of crime victimization ($a \times b = -.00$, Bootstrap CI95 = $-.098$ and $.091$). Since these results were statistically insignificant, the null hypothesis four under research question three failed to reject.

Overall, the Model 3 Mediation Analysis results to answer research question three were not supportive of the perceived risk of victimization for its mediating role between Hispanic youth social bonds (parental attachment, school commitment, belief of guilt for

wrongdoings, and involvement in legitimate activities) and fear of crime victimization. A strong criticism that Social Bond Theory faces is its incompetence in explaining youth behavior across various racial/ethnic backgrounds (Alvarez, 2018; Costello & Laub, 2020), and this could be a reason for the non-significant results observed in Model 3.

Table 5

Mediation Effect of Perceived Risk of Victimization Between Elements of Hispanic Youth Social Bonds and Fear of Crime Victimization (Model 3)

IV	M	DV	IE	Boot SE	Boot LLCI	Boot ULCI
Parental Attachment	Perceived Risk of Victimization	Fear of Crime Victimization	-.02	.01	-.063	.003
School Commitment	Perceived Risk of Victimization	Fear of Crime Victimization	-.03	.02	-.079	.007
Belief of Guilt for Wrongdoings	Perceived Risk of Victimization	Fear of Crime Victimization	-.00	.02	-.063	.051
Involvement in Legitimate Activities	Perceived Risk of Victimization	Fear of Crime Victimization	-.00	.04	-.098	.091

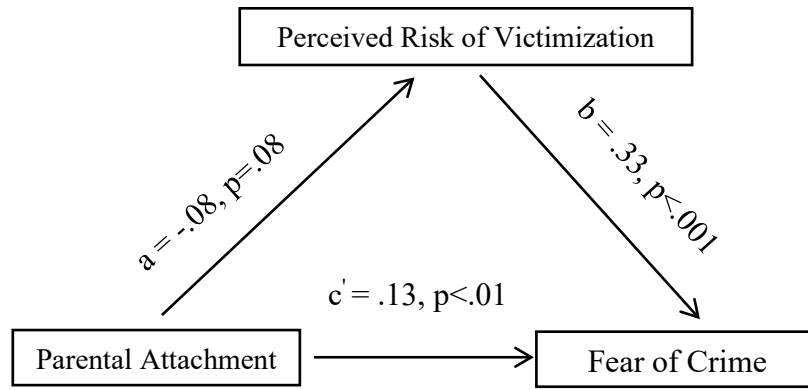
N= 588

IV = independent variable, M = mediator, DV = dependent variable, IE = indirect effect, Boot SE = bootstrap standard error, Boot LLCI = bootstrap lower limit confidence interval, Boot ULCI = bootstrap upper limit confidence interval

* = significant result at .05

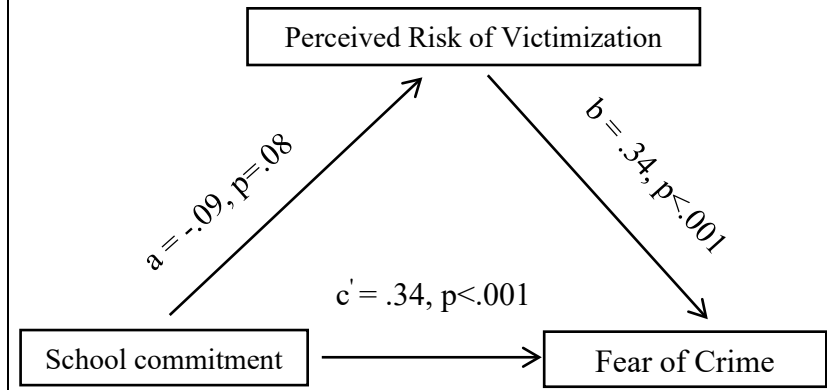
Figure 4

Mediation Analysis Results for Hispanic Youth Social Bonds, Perceived Risk of Victimization and Fear of Crime Victimization

Figure 4a: H_{A3a}:

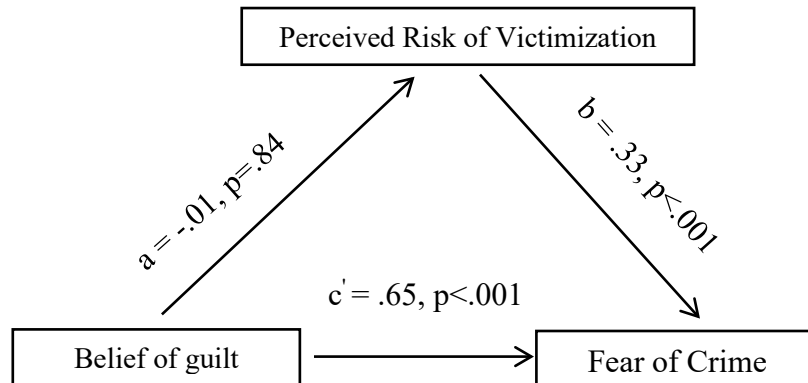
Indirect Effect = $-.02$, 95% CI $[-.063, .003]$

Direct Effect = $.13$, $p < .01$; Total Effect = $.10$, $p < .05$

Figure 4b: H_{A3b}:

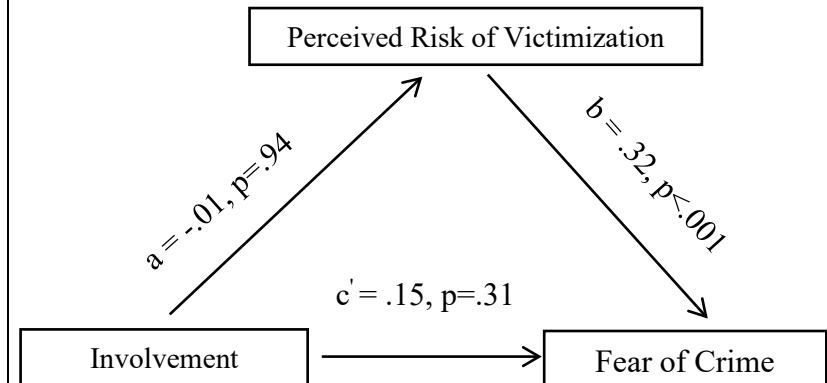
Indirect Effect = $-.03$, 95% CI $[-.079, .007]$

Direct Effect = $.34$, $p < .001$; Total Effect = $.30$, $p < .001$

Figure 4c: H_{A3c}:

Indirect Effect = $-.00$, 95% CI $[-.063, .051]$

Direct Effect = $.65$, $p < .001$; Total Effect = $.65$, $p < .001$

Figure 4d: H_{A3d}:

Indirect Effect = $-.00$, 95% CI $[-.098, .091]$

Direct Effect = $.15$, $p = .31$; Total Effect = $.15$, $p = .35$

Understanding the Mediation Effect of the Perceived Risk of Victimization on White Youth Social Bonds and Fear of Crime Victimization

Research Question Four

Research question four (Does the perceived risk of victimization mediate the relationship between White youth's social bonds and fear of crime victimization?) aimed to understand the role of the perceived risk of victimization as a mediator between the White youth's social bonds and fear of crime victimization. Four research hypotheses under the fourth research question stated the perceived risk of victimization as a significant mediator between the White youth's social bonds (such as parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities) and fear of crime victimization. The technique of select cases was utilized to select only White youth in the sample for this research question, and Mediation Analysis was the statistical technique employed.

A Mediation Analysis was conducted to examine whether the perceived risk of victimization mediated the White youth's parental attachment and fear of crime victimization. The results of the Mediation Analysis (indirect effect) (see Table 6 and Figure 5a) indicated that perceived risk of victimization was not a significant mediator of White youth's parental attachment and fear of crime victimization ($a \times b = -.03$, Bootstrap CI95 = $-.088$ and $.021$). Since these results were statistically insignificant, the null hypothesis one under research question four failed to reject.

A Mediation Analysis was conducted to examine whether the perceived risk of victimization mediated the White youth's school commitment and fear of crime victimization. The results of the Mediation Analysis (indirect effect) (see Table 6 and

Figure 5b) suggest that perceived risk of victimization was not a significant mediator of White youth's school commitment and fear of crime victimization ($a \times b = -.04$, Bootstrap CI95 = $-.108$ and $.007$). Since these results were statistically insignificant, the null hypothesis two under research question four failed to reject.

A Mediation Analysis was conducted to examine whether the perceived risk of victimization mediated the White youth's belief of guilt for wrongdoings and fear of crime victimization. The results of the Mediation Analysis (indirect effect) (see Table 6 and Figure 5c) revealed that perceived risk of victimization was not a significant mediator of White youth's belief of guilt for wrongdoings and fear of crime victimization ($a \times b = -.04$, Bootstrap CI95 = $-.142$ and $.041$). Since these results were statistically insignificant, null hypothesis three under research question four failed to reject.

A Mediation Analysis was conducted to examine whether the perceived risk of victimization mediated the White youth's involvement in legitimate activities and fear of crime victimization. The results of the Mediation Analysis (indirect effect) (see Table 6 and Figure 5d) indicated that perceived risk of victimization was not a significant mediator of White youth's involvement in legitimate activities and fear of crime victimization ($a \times b = -.04$, Bootstrap CI95 = $-.166$ and $.068$). Since these results were statistically insignificant, the fourth null hypothesis under research question four failed to reject.

Overall, the Model 4 Mediation Analysis results to answer research question four were not supportive of the perceived risk of victimization for its mediating role between White youth social bonds (parental attachment, school commitment, belief of guilt for wrongdoings, and involvement in legitimate activities) and fear of crime victimization.

Hirschi (1991) utilized the White male sample while developing Social Bond Theory, and it is often criticized regarding the poor ability of the elements of social bonds to predict racial/ethnic minority youth behavior (Alvarez, 2018; Costello & Laub, 2020). Despite the strength that the elements of the social bond possess in explaining White youth behavior, this study Model 4 results found non-significant results. The greater female sample size than boys could be a reason for these results.

Table 6

Mediation Effect of Perceived Risk of Victimization Between Elements of White Youth Social Bonds and Fear of Crime Victimization (Model 4)

IV	M	DV	IE	Boot SE	Boot LLCI	Boot ULCI
Parental Attachment	Perceived Risk of Victimization	Fear of Crime Victimization	-.03	.02	-.088	.021
School Commitment	Perceived Risk of Victimization	Fear of Crime Victimization	-.04	.02	-.108	.007
Belief of Guilt for Wrongdoings	Perceived Risk of Victimization	Fear of Crime Victimization	-.04	.04	-.142	.041
Involvement in Legitimate Activities	Perceived Risk of Victimization	Fear of Crime Victimization	-.04	.05	-.166	.068

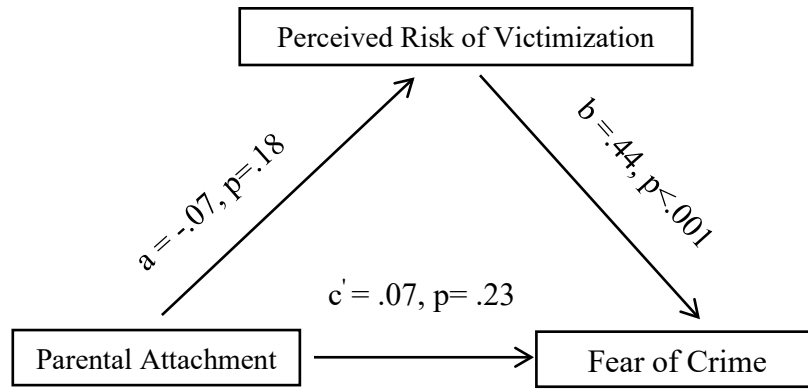
N=463

IV = independent variable, M = mediator, DV = dependent variable, IE = indirect effect, Boot SE = bootstrap standard error, Boot LLCI = bootstrap lower limit confidence interval, Boot ULCI = bootstrap upper limit confidence interval

* = significant result at .05

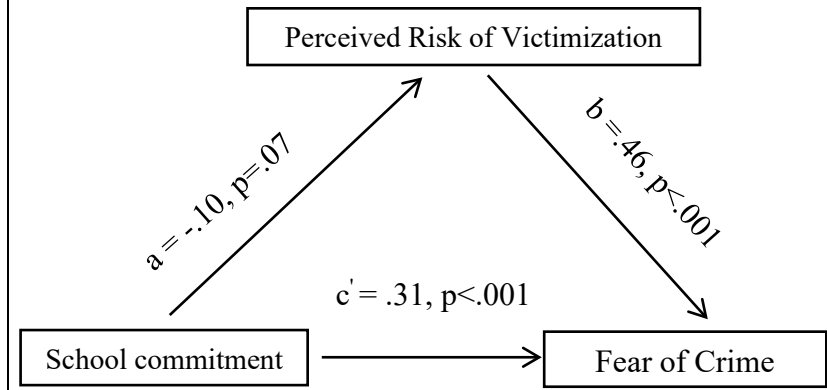
Figure 5

Mediation Analysis Results for White Youth Social Bonds, Perceived Risk of Victimization and Fear of Crime Victimization

Figure 5a: H_{A4a}:

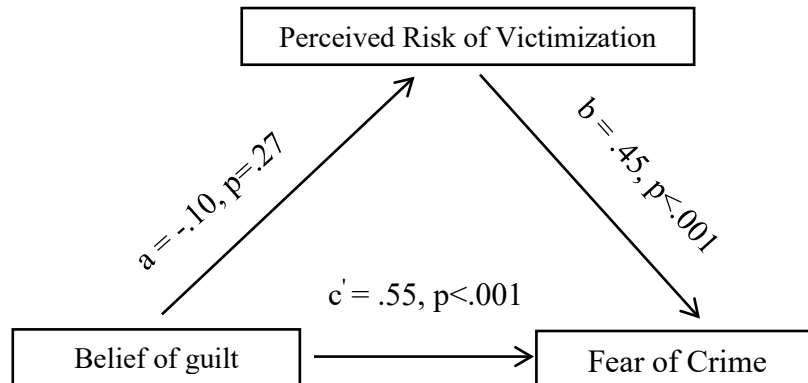
Indirect Effect = $-.03$, 95% CI $[-.088, .021]$

Direct Effect = $.07, p = .23$; Total Effect = $.04, p = .50$

Figure 5b: H_{A4b}:

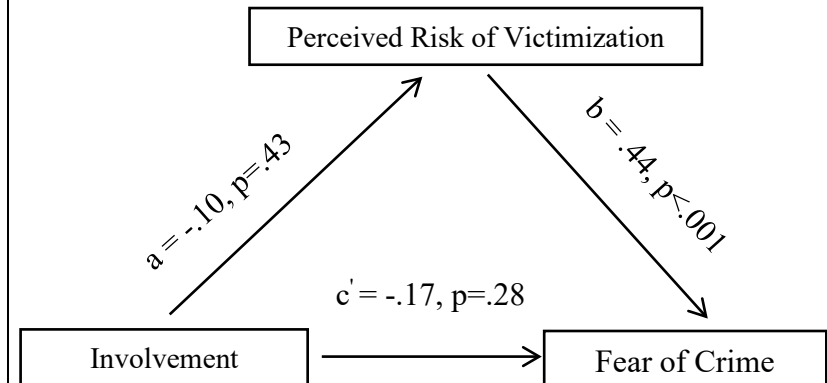
Indirect Effect = $-.04$, 95% CI $[-.108, .007]$

Direct Effect = $.31, p < .001$; Total Effect = $.27, p < .001$

Figure 5c: H_{A4c}:

Indirect Effect = $-.04$, 95% CI $[-.142, .041]$

Direct Effect = $.55, p < .001$; Total Effect = $.50, p < .001$

Figure 5d: H_{A4d}:

Indirect Effect = $-.04$, 95% CI $[-.166, .068]$

Direct Effect = $-.17, p = .28$; Total Effect = $-.22, p = .20$

Understanding the Mediation Effect of the Perceived Risk of Victimization on Male Youth Social Bonds and Fear of Crime Victimization

Research Question Five

Research question five (Does the perceived risk of victimization mediate the relationship between male youth's social bonds and fear of crime victimization?) aimed to examine the role of the perceived risk of victimization as a mediator between the male youth's social bonds and fear of crime victimization. Four research hypotheses under the fifth research question stated the perceived risk of victimization as a significant mediator between the male youth's social bonds (such as parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities) and fear of crime victimization. The technique of select cases was utilized to select only male youth in the sample for this research question, and Mediation Analysis was the statistical technique employed.

Mediation Analysis was performed to examine whether male youth parental attachment effect on fear of crime victimization was mediated through the perceived risk of victimization. Non-significant results (indirect effect) from Table 7 and Figure 6a indicated that the male youth who differed by one unit in their parental attachment were likely to differ by -.02 units (Bootstrap CI 95= -.070 and .017) in their reported fear of crime victimization. The mediating effect of the perceived risk of victimization between male youth parental attachment and fear of crime victimization was not statistically significant. Therefore, the null hypothesis one under research question five failed to reject.

Mediation Analysis was performed to examine whether male youth school commitment effect on fear of crime victimization was mediated through the perceived risk of victimization. Non-significant results (indirect effect) from Table 7 and Figure 6b indicated that the male youth who differed by one unit in their school commitment were likely to differ by -.04 units (Bootstrap CI 95= -.089 and .004) in their reported fear of crime victimization. The mediating effect of the perceived risk of victimization between male youth school commitment and fear of crime victimization was not statistically significant. Therefore, null hypothesis two under research question five failed to reject.

To examine whether male youth's belief of guilt for wrongdoings effect on fear of crime victimization was mediated through the perceived risk of victimization, Mediation Analysis was performed. Non-significant results (indirect effect) from Table 7 and Figure 6c indicated that the male youth who differed by one unit in their belief of guilt for wrongdoings were likely to differ by -.04 units (Bootstrap CI 95= -.116 and .017) in their reported fear of crime victimization. The mediating effect of the perceived risk of victimization between male youth's belief of guilt for wrongdoings and fear of crime victimization was not statistically significant. Therefore, null hypothesis three under research question five failed to reject.

Mediation Analysis was performed to understand whether male youth involvement in legitimate activities' effect on fear of crime victimization was mediated through the perceived risk of victimization. Non-significant results (indirect effect) from Table 7 and Figure 6d indicated that the male youth who differed by one unit in their involvement in legitimate activities were likely to differ by -.06 units (Bootstrap CI 95= -.174 and .039) in their reported fear of crime victimization. The mediating effect of the

perceived risk of victimization between male youth involvement in legitimate activities and fear of crime victimization was not statistically significant. Therefore, null hypothesis four under research question five failed to reject.

Overall, the Model 5 Mediation Analysis results to answer research question five were not supportive of the perceived risk of victimization for its mediating role between male youth social bonds (parental attachment, school commitment, belief of guilt for wrongdoings, and involvement in legitimate activities) and fear of crime victimization. The male youth sample in Model 5 consisted of male youth from various racial/ethnic backgrounds with unequal distribution. The inconsistent racial/ethnic backgrounds among the male youth sample could be a reason that contributed to non-significant results, even though Social Bond Theory is known for its strength in explaining gender differences (Rosenbaum, 1987).

Table 7

Mediation Effect of Perceived Risk of Victimization Between Elements of Male Youth Social Bonds and Fear of Crime Victimization (Model 5)

IV	M	DV	IE	Boot SE	Boot LLCI	Boot ULCI
Parental Attachment	Perceived Risk of Victimization	Fear of Crime Victimization	-.02	.02	-.070	.017
School Commitment	Perceived Risk of Victimization	Fear of Crime Victimization	-.04	.02	-.089	.004
Belief of Guilt for Wrongdoings	Perceived Risk of Victimization	Fear of Crime Victimization	-.04	.03	-.116	.017
Involvement in Legitimate Activities	Perceived Risk of Victimization	Fear of Crime Victimization	-.06	.05	-.174	.039

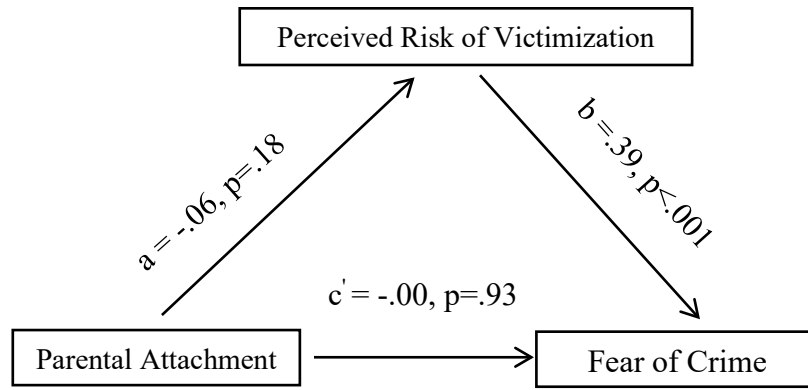
N=568

IV = independent variable, M = mediator, DV = dependent variable, IE = indirect effect, Boot SE = bootstrap standard error, Boot LLCI = bootstrap lower limit confidence interval, Boot ULCI = bootstrap upper limit confidence interval

* = significant result at .05

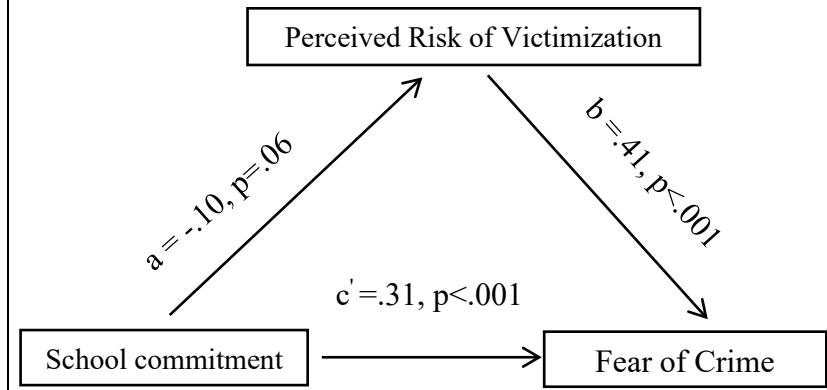
Figure 6

Mediation Analysis Results for Male Youth Social Bonds, Perceived Risk of Victimization and Fear of Crime Victimization

Figure 6a: H_{A5a}:

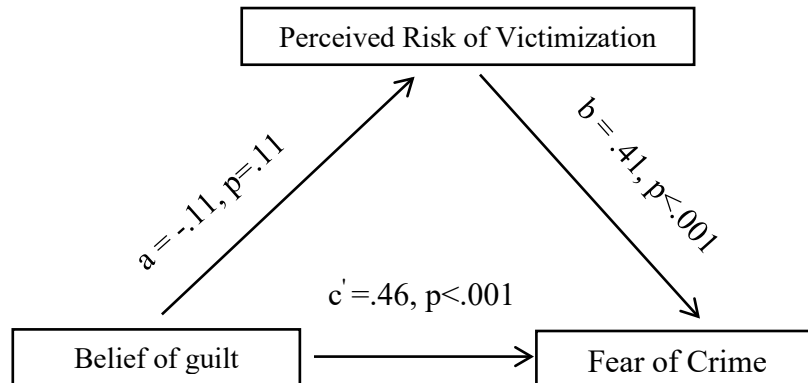
Indirect Effect = $-.02$, 95% CI $[-.070, .017]$

Direct Effect = $-.00$, $p = .93$; Total Effect = $-.02$, $p = .59$

Figure 6b: H_{A5b}:

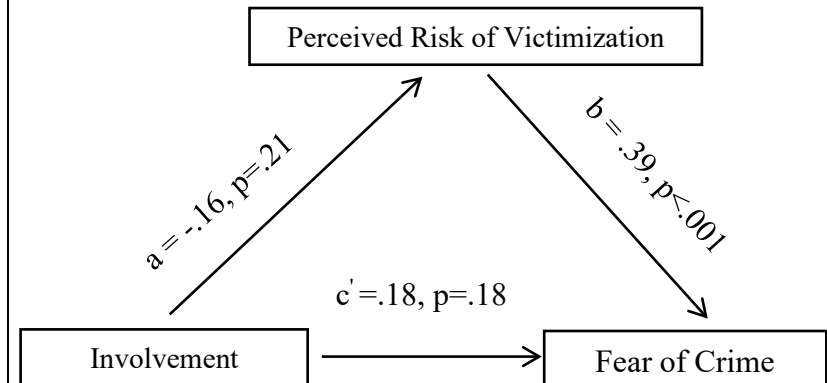
Indirect Effect = $-.04$, 95% CI $[-.089, .004]$

Direct Effect = $.31$, $p < .001$; Total Effect = $.27$, $p < .001$

Figure 6c: H_{A5c}:

Indirect Effect = $-.04$, 95% CI $[-.116, .017]$

Direct Effect = $.46$, $p < .001$; Total Effect = $.42$, $p < .001$

Figure 6d: H_{A5d}:

Indirect Effect = $-.06$, 95% CI $[-.174, .039]$

Direct Effect = $.18$, $p = .18$; Total Effect = $.12$, $p = .41$

Understanding the Mediation Effect of the Perceived Risk of Victimization on Female Youth Social Bonds and Fear of Crime Victimization

Research Question Six

Research question six (Does the perceived risk of victimization mediate the relationship between female youth's social bonds and fear of crime victimization?) aimed to examine the role of the perceived risk of victimization as a mediator between the female youth's social bonds and fear of crime victimization. Four research hypotheses under the sixth research question stated the perceived risk of victimization as a significant mediator between the female youth's social bonds (such as parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities) and fear of crime victimization. The technique of select cases was utilized to select only female youth in the sample for this research question, and Mediation Analysis was the statistical technique employed.

Mediation Analysis was performed to examine whether female youth parental attachment effect on fear of crime victimization was mediated through the perceived risk of victimization. Non-significant results (indirect effect) from Table 8 and Figure 7a indicated that the female youth who differed by one unit in their parental attachment were likely to differ by -.03 units (Bootstrap CI 95= -.072 and -.007) in their reported fear of crime victimization. The mediating effect of the perceived risk of victimization between female youth parental attachment and fear of crime victimization was statistically significant. Therefore, the null hypothesis one under research question six is rejected. Results indicated a full mediation effect.

Mediation Analysis was performed to examine whether female youth school commitment effect on fear of crime victimization was mediated through the perceived risk of victimization. Non-significant results (indirect effect) from Table 8 and Figure 7b indicated that the female youth who differed by one unit in their school commitment were likely to differ by $-.06$ units (Bootstrap CI 95= $-.106$ and $-.017$) in their reported fear of crime victimization. The mediating effect of the perceived risk of victimization between female youth school commitment and fear of crime victimization was statistically significant. Therefore, null hypothesis two under research question six is rejected. Results indicated a full mediation effect.

To examine whether female youth's belief of guilt for wrongdoings effect on fear of crime victimization was mediated through the perceived risk of victimization, Mediation Analysis was performed. Non-significant results (indirect effect) from Table 8 and Figure 7c indicated that the female youth who differed by one unit in their belief of guilt for wrongdoings were likely to differ by $-.01$ units (Bootstrap CI 95= $-.077$ and $.041$) in their reported fear of crime victimization. The mediating effect of the perceived risk of victimization between female youth's belief of guilt for wrongdoings and fear of crime victimization was not statistically significant. Therefore, null hypothesis three under research question six failed to reject.

Mediation Analysis was performed to examine whether female youth involvement in legitimate activities on fear of crime victimization was mediated through the perceived risk of victimization. Non-significant results (indirect effect) from Table 8 and Figure 7d indicated that the female youth who differed by one unit in their involvement in legitimate

activities were likely to differ by .02 units (Bootstrap CI 95= -.062 and .115) in their reported fear of crime victimization. The mediating effect of the perceived risk of victimization between female youth involvement in legitimate activities and fear of crime victimization is not statistically significant. Therefore, null hypothesis four under research question six failed to reject.

Overall, the Model 6 Mediation Analysis results to answer research question six found mixed support suggesting that the female youth perceived risk of victimization significantly mediated the relationship between parental attachment, school commitment and fear of crime victimization, but not between belief of guilt for wrongdoings, involvement in legitimate activities, and fear of crime victimization. Model 6 findings explain that higher parental attachment and school commitment among female youth reduced the perceived risk of victimization and fear of crime victimization significantly. The elements, belief of guilt for wrongdoings and involvement in legitimate activities were not significant in their effect on perceived risk of victimization and fear of crime victimization. The significant results of female youth in Model 6 are reliable even though this study's sample of female youth come from disproportionate racial/ethnic backgrounds. It is because, unlike males, females across various racial/ethnic backgrounds, especially in adolescence, are almost similarly socialized to conform to behavior (Rosenbaum, 1987).

Table 8

Mediation Effect of Perceived Risk of Victimization Between Elements of Female Youth Social Bonds and Fear of Crime Victimization (Model 6)

IV	M	DV	IE	Boot SE	Boot LLCI	Boot ULCI
Parental Attachment	Perceived Risk of Victimization	Fear of Crime Victimization	-.03*	.01	-.072	-.007
School Commitment	Perceived Risk of Victimization	Fear of Crime Victimization	-.06*	.02	-.106	-.017
Belief of Guilt for Wrongdoings	Perceived Risk of Victimization	Fear of Crime Victimization	-.01	.03	-.077	.041
Involvement in Legitimate Activities	Perceived Risk of Victimization	Fear of Crime Victimization	.02	.04	-.062	.115

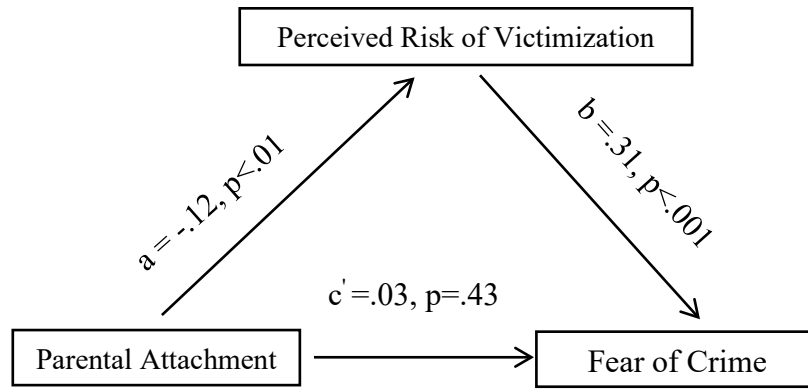
N=640

IV = independent variable, M = mediator, DV = dependent variable, IE = indirect effect, Boot SE = bootstrap standard error, Boot LLCI = bootstrap lower limit confidence interval, Boot ULCI = bootstrap upper limit confidence interval

* = significant result at .05

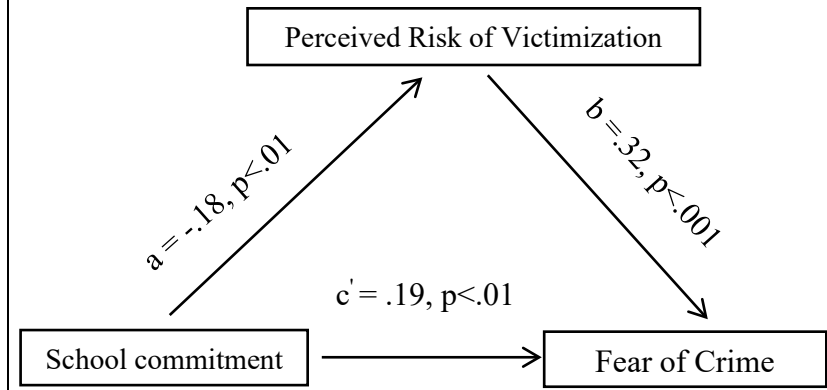
Figure 7

Mediation Analysis Results for Female Youth Social Bonds, Perceived Risk of Victimization and Fear of Crime Victimization

Figure 7a: H_{A6a}:

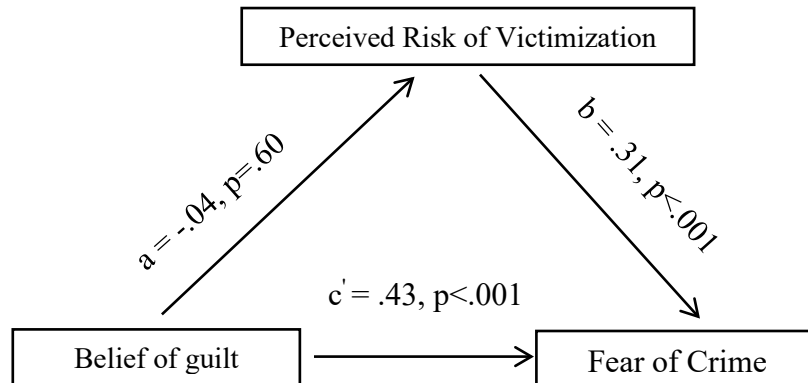
Indirect Effect = -.03*, 95% CI [-.072, -.007]

Direct Effect = .03, p = .43; Total Effect = .00, p = .97

Figure 7b: H_{A6b}:

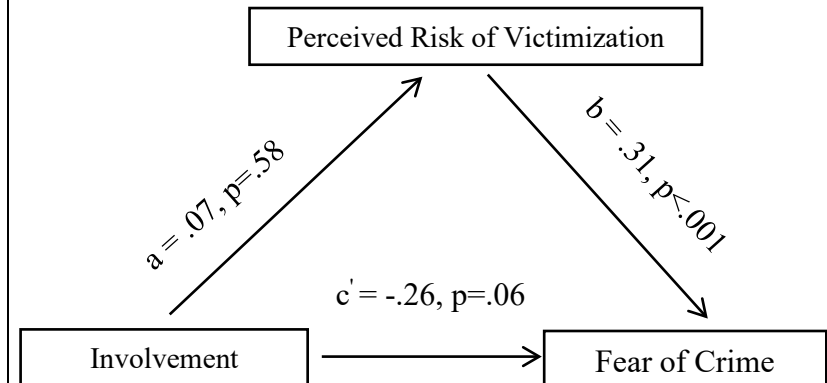
Indirect Effect = -.06*, 95% CI [-.106, -.017]

Direct Effect = .19, p < .01; Total Effect = .13, p < .05

Figure 7c: H_{A6c}:

Indirect Effect = -.01, 95% CI [-.077, .041]

Direct Effect = .43, p < .001; Total Effect = .41, p < .001

Figure 7d: H_{A6d}:

Indirect Effect = .02, 95% CI [-.062, .115]

Direct Effect = -.26, p = .06; Total Effect = -.24, p = .10

Summary

This study's results found mixed support for research question one, which hypothesized whether perceived risk of victimization mediated the relationship between social bonds and fear of crime victimization. The results from Mediation Analysis (Model 1) indicated that perceived risk of victimization significantly mediated the relationship between youth parental attachment and fear of crime, and school commitment and fear of crime. Therefore, RQ1 results suggest that parental attachment and school commitment were the only two elements of social bonds with a significant causal relationship with youth's perceived risk of victimization and fear of crime victimization. In contrast, the other social bond elements, the belief of guilt for wrongdoings, and involvement in legitimate activities, were not statistically significant.

RQ2 examined whether the perceived risk of victimization mediated the relationship between Black youth social bonds and fear of crime victimization. Results from Mediation Analysis (Model 2) were not supportive of RQ2 and found that the perceived risk of victimization had not significantly mediated the relationship between four elements of the social bonds (such as parental attachment, school commitment, the belief of guilt for wrongdoings and involvement in legitimate activities) and fear of crime victimization.

Understanding the mediating role of the perceived risk of victimization between Hispanic youth social bonds and fear of crime victimization was hypothesized by RQ3. Results found no support for RQ3. Results from Mediation Analysis (Model 3) indicated that the relationship between each element of the social bond and fear of crime victimization was not significantly mediated by the perceived risk of victimization.

RQ4 of this study analyzed the role of the perceived risk of victimization as a mediator between White youth social bonds and fear of crime victimization. Results from the Mediation Analysis (Model 4) found no significant mediating role of the perceived risk of victimization between each element of the social bonds and White youth fear of crime victimization. Therefore, these results found no support for RQ4.

The mediating role of the perceived risk of victimization between male youth social bonds and fear of crime victimization was tested by RQ5. Mediation Analysis results (Model 5) found statistically non-significant results thus not supporting RQ5. Hence, the perceived risk of victimization had not mediated the relationship between each element of the social bonds and male youth's fear of crime victimization.

The final research question of the study examined whether the perceived risk of victimization mediated female youth's social bonds relationship with fear of crime victimization. Mediation Analysis results (Model 6) found mixed support for RQ6. Results revealed a significant mediating role of perceived risk of victimization between female youth parental attachment and fear of crime, and school commitment and fear of crime. Therefore, a significant causal relationship was found for female youth parental attachment and school commitment with youth perceived risk of victimization and fear of crime victimization. The other social bond elements, the belief of guilt for wrongdoings, and involvement in legitimate activities, were not statistically significant for female youth.

Overall, this study's results found that social bond elements such as parental attachment and school commitment lowered youth in general and female youth perceived risk of victimization and fear of crime victimization significantly. In contrast, other

elements of the social bonds, such as the belief of guilt for wrongdoings and involvement in legitimate activities, were not statistically significant in lowering the perceived risk of victimization and fear of crime victimization among youth in general and female youth. Furthermore, this study's results also identified that none of the social bond elements significantly lower the perceived risk of victimization and fear of crime victimization among male youth and youth across various racial/ethnic backgrounds. Therefore, this study's findings suggest that in integrating Social Bond Theory and Ferraro's risk assessment framework to examine fear of crime, parental attachment, and school commitment were significant predictors of fear of crime victimization among youth in general and female youth. This phenomenon indicates that future studies of youth fear of crime may involve parental attachment and school commitment in their study model to increase the validity of their findings.

CHAPTER V

CONCLUSION AND DISCUSSION

Adolescent fear of crime studies appeared prominently in scholarly journals only after late 1990 (May & Dunway, 2000). Until the late 1990s, most fear of crime studies extensively focused on the adult population. Among studies that used adolescent sample, the studies extensively utilized demographic variables (Perumean-Chaney & Sutton, 2013), peer characteristics (Yuan & An, 2017), school factors (Melde et al., 2016), socialization differences (Bayley & Andersen, 2006), neighborhood structure and strain (May et al., 2015), victimization experiences (May & Dunway, 2000), physical vulnerabilities (May, 2001b), emotional support (Baek et al., 2019), youth offending behavior (Lane, 2009), youth victim-offender relationship (Hilinski, 2009), media (Cops, 2010), low-self-control (Higgins et al., 2008), and geographic location (Perumean-Chaney & Sutton, 2013), in explaining youth fear of crime.

Most youth fear of crime studies examined the causes fear of crime among youth (Bayley & Andersen, 2006; Hilinski, 2009; May, 2001b; May et al., 2015; Melde et al., 2016; Yuan & An, 2017). In contrast to the previous studies, this research aimed to explain the variables that reduce youth fear of crime. Social bonds such as parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities were among the variables analyzed in this study to test whether these variables could limit youth's fear of crime. This research relied on Social Bond Theory and Ferraro's risk assessment framework for quality analysis of youth fear of crime and to develop meaningful explanations. Although various studies used elements of social bonds to examine fear of crime, those studies were limited to the use of only one element of the

social bonds (for example, see, Cops, 2010, 2013; De Groof, 2008; May, 1999; May et al., 2002) indicating the paucity of scholarship on all the elements of social bonds, perceived risk of victimization, and fear of crime victimization.

Extant research has revealed higher fear among females and racial/ethnic minorities (Hale, 1996; Lane et al., 2014; May, 2001a; Melde, 2007). Studies are consistent in their findings for youth and adult females' fear of crime (Lane et al., 2014). However, fear of crime among adult racial/ethnic minorities has more substantial support than among youth (Swartz et al., 2011). A general explanation for adult females and racial/ethnic minorities fear of crime is credited to their views of vulnerability (Franklin et al., 2008) and victimization (Schaeffer et al., 2006). Unlike adult studies, youth studies lacked a consistent explanation of what causes the difference between youth females and males (Lane et al., 2014) and racial/ethnic minority youth and non-minorities in their fear of crime (Bachman et al., 2011). Therefore, while proposing the importance of social bonds' role in explaining youth differences in their fear of crime, this study also suggested the importance of using Ferraro's risk assessment framework. This research aimed to uncover the role of social bonds in youth fear of crime victimization across various racial/ethnic and gender backgrounds. The following sections provide greater detail about this study's findings. For better understanding, the following sections are arranged into three parts.

Discussion of Study Findings

Youth Social Bonds, Perceived Risk of Victimization, and Fear of Crime

Victimization

In advancing Ferraro's risk assessment framework using Social Bond Theory, this research examined a causal relationship between youth social bonds (such as parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities), perceived risk of victimization, and fear of crime victimization, where the perceived risk of victimization was treated as a mediator as suggested by Ferraro. Ample research found that the individual elements of social bonds significantly impacted youth fear (Cops, 2010, 2013; De Groof, 2008; May et al., 2002). However, very few studies utilized Social Bond Theory and Ferraro's framework to explore how all the elements of social bonds affected the perceived risk of victimization and fear of crime victimization (Lane et al., 2014). Therefore, more particularly, this research provided special attention to understanding how the social bonds affected fear of crime victimization when it was through the perceived risk of victimization.

Results in this research (Model 1) (see Table 3 and Figure 2) found that youth's parental attachment and school commitment significantly reduced fear of crime through the perceived risk of victimization and these findings are consistent with previous studies. Most youth fear studies that employed parental attachment or school commitment as predictors found they reduced fear of crime (for example, see Burrow & Apel, 2008; Payne et al., 2003; Steinberg et al., 2011; Wallace & May, 2005; Welsh, 2001; Wilcox et al., 2009). At the same time, variables such as youth's belief of guilt for wrongdoings and involvement in legitimate activities in this study also reduced fear of crime through the

perceived risk of victimization but were not statistically significant. Therefore, these results are 95% confident in stating that this study sample's parental attachment and school commitment minimized the youth's perceived risk and fear of crime victimization. This study sample's belief of guilt for wrongdoings and involvement in legitimate activities was also found to minimize the youth's perceived risk and fear of crime victimization. However, these variables did not achieve 95% confidence in the data analysis. Although the variables belief of guilt for wrongdoings and involvement in legitimate activities were not significant, the direction of the relationship between variables are consistent with the previous study findings (for example, see Burrow & Apel, 2008; Denkers & Winkel, 1998; Ducksworth, 2014; Luengas & Rupah, 2008; Schwadel & Anderson, 2022).

Overall, the Mediation Analysis found mixed support for youth social bonds' effects on fear of crime through the perceived risk of victimization. Concerning the direction of the relationship between the variables, Model 1 results indicated the importance of youth's social bonds in their cognitive judgments of perceived risk and exhibiting an emotion like fear.

While Social Bond Theory suggests that stronger bonds reduce the risk of victimization, Ferraro (1995b) stated a possible mediation effect by the perceived risk of victimization in between predictor variables and fear of crime victimization. In other words, Ferraro, while proposing a direct relationship between the perceived risk of victimization and fear of crime victimization, also suggested that if the predictor variable decrease the perceived risk of victimization, one's fear of crime victimization also

decreased, and, if predictor variable increased the perceived risk of victimization, fear of crime victimization was expected to increase.

In integrating these two frameworks, Social Bond Theory and Ferraro's risk assessment framework, a stronger social bond is expected to reduce one's perceived risk of victimization and fear of crime victimization. These findings are consistent with the predictions of Ferraro (1995b), although the indirect effect values of youth social bonds are relatively small, the relationship between elements of social bonds, the perceived risk of victimization, and fear of crime victimization in this study followed the logic of Ferraro's risk assessment framework.

Social Bonds, Perceived Risk of Victimization, and Fear of Crime Victimization in the Context of Youth Racial/Ethnic Backgrounds

Based on the theoretical propositions of Social Bond Theory and Ferraro's risk assessment framework, this research hypothesized that the youth's perceived risk of victimization mediated the relationship between social bonds and fear of crime victimization, as discussed in the above section. However, to provide greater insight into this area, this research developed a hypothesis to understand how Black, Hispanic, and White youth's social bonds affected their perceived risk of victimization and fear of crime victimization. This study strictly controlled other racial/ethnic backgrounds while considering one specific youth background. Therefore, this study's use of the elements of Social Bond Theory with Ferraro's risk assessment framework attempted to uncover the power of social bonds in explaining differences among various racial/ethnic background youth's fear.

Black Youth Social Bonds, Perceived Risk of Victimization, and Fear of Crime

Victimization. Model 2 (See Table 4 and Figure 3) results stated that Black youth's school commitment and belief of guilt for wrongdoings reduced fear of crime through the perceived risk of victimization, while youth's parental attachment and involvement in legitimate activities slightly increased fear of crime through the perceived risk of victimization. However, none of these findings were statistically significant.

Therefore, this study's results are not 95% confident in stating that Black youth's school commitment and belief of guilt for wrongdoings minimized the youth's perceived risk and fear of crime victimization. Whereas Black youth's parental attachment and involvement in legitimate activities were found to contribute to greater perceived risk and fear of crime victimization, these variables did not achieve 95% confidence in the data analysis.

Overall, the Mediation Analysis found no statistically significant support for the research question that Black youth social bonds effect on fear of crime through the perceived risk of victimization. While Social Bond Theory suggests that stronger bonds reduce the risk of victimization (Schreck & Fisher, 2004), Ferraro's risk assessment framework suggests that reduced risk of victimization lowers the perceived risk of victimization and fear of crime victimization (Ferraro, 1995b). Model 2 results, although not statistically significant based on the direction of the relationship between the variables, found mixed partial support for Social Bond Theory and Ferraro's risk assessment framework in explaining Black youth's fear of crime.

Hispanic Youth Social Bonds, Perceived Risk of Victimization, and Fear of Crime

Victimization. Model 3 Mediation Analysis results (see Table 5 and Figure 4) did not

find a statistically significant indirect effect of Hispanic youth's parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities on the perceived risk of victimization and fear of crime victimization.

Therefore, this study's results are not 95% confident in stating that Hispanic youth's parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities minimize the youth's perceived risk and fear of crime victimization.

Overall, the Mediation Analysis found no statistically significant support for the research question that Hispanic youth social bonds' effect on fear of crime through the perceived risk of victimization. The Social Bond Theory argues that greater social bond reduces the risk of victimization (Schreck & Fisher, 2004), and Ferraro's risk assessment framework states that reduced risk of victimization lowers the perceived risk of victimization and fear of crime victimization (Ferraro, 1995b). Model 3 results were not statistically significant, but concerning the direction of the relationship between the variables, they found partial support for Social Bond Theory and Ferraro's risk assessment framework in explaining Hispanic youth's fear of crime.

White Youth Social Bonds, Perceived Risk of Victimization, and Fear of Crime

Victimization. Model 4 (See Table 6 and Figure 5) results found that White youth's parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities reduced fear of crime through the perceived risk of victimization. However, none of these findings were statistically significant. So, it means that this study's results are not 95% confident in the minimizing effect of White youth's parental attachment, school commitment, the belief of guilt for wrongdoings, and

involvement in legitimate activities on their perceived risk and fear of crime victimization.

Overall, the Mediation Analysis found no statistically significant support for the research question that White youth social bonds effect on fear of crime via perceived risk of victimization. While Social Bond Theory suggests that stronger bonds reduce the risk of victimization (Schreck & Fisher, 2004), Ferraro's risk assessment framework suggests that reduced risk of victimization lowers the perceived risk of victimization and fear of crime victimization (Ferraro, 1995b). Model 4 results, although not statistically significant based on the variables' direction of relationship, found partial support for Social Bond Theory and Ferraro's risk assessment framework in explaining White youth's fear of crime.

Although not statistically significant, the difference in the direction of the variables among Black, Hispanic, and White youth results can be attributed to the difference in sample size. Hispanic (588) and White (463) youth in this study had a greater sample size than Black youth (157). The smaller sample size of Black youth may have negatively impacted the direction of the variables for Black youth social bonds' effect on fear of crime victimization. Using a proportional sample across racial/ethnic backgrounds may have contributed to reliable comparisons. Besides the sample size, previous studies often criticized Social Bond Theory for not explaining racial/ethnic differences (Alvarez, 2018; Costello & Laub, 2020; Lisa & May, 2005).

Social Bonds, Perceived Risk of Victimization, and Fear of Crime Victimization in the Context of Youth Gender Backgrounds

Youth studies identified a greater fear of crime among females than male youth. The phenomena of greater fear among females indicate the importance of knowing the contributing causes for the differences between males' and females fear of crime. Several studies indicated vulnerability (May & Dunaway, 2000; May et al., 2015; Schreck & Miller, 2003) and victimization (Katz et al., 2003; Melde et al., 2007) aspects related to the causes for differences between male and female fear of crime. While other causes of female youth fear of crime are less explored in the literature, it is of greater importance to know what, or which other factors are contributing to male and female youth fear of crime.

Social bonds cannot be ignored while assessing male and female youth's fear of crime. It is because youth's social bonds to others are primary, and the strength of youth bonds may predict or even could be a cause of youth's exposure to victimization and vulnerability views. In addition, besides, the literature supports that youth depend on social bonds when making decisions and also signifies the importance of youth social bonds (Hirsch, 1969; Homer et al., 2020; Wright et al., 2001; Zavala et al., 2019).

In his study, Ferraro (1995b) found differences in male and female fear but he did not offer explanations for why the difference existed. While Social Bond Theory is well known for its ability to explain gender differences (Rosenbaum, 1987), this study extends Social Bond Theory's capacity to predict youth fear of crime victimization using Ferraro's risk assessment framework. Therefore, the effect of social bonds (such as parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in

legitimate activities) on the perceived risk of victimization and fear of crime victimization between male and female youth were tested.

Male Youth Social Bonds, Perceived Risk of Victimization, and Fear of Crime

Victimization. Mediation Analysis results from Model 5 (See Table 7 and Figure 6) explain that the male youth's parental attachment, school commitment, the belief of guilt for wrongdoings, and involvement in legitimate activities lowered their fear of crime victimization through the perceived risk of victimization. However, these results were not statistically significant. Hence, this study's results for male youths are not 95% confident regarding their social bonds' effect on lowering the perceived risk of victimization and fear of crime victimization.

These results should be understood in terms of the direction of the relationship of the variables. The study variables suggest partial support for youth social bonds' effect on fear of crime through the perceived risk of victimization. Therefore, Ferraro's risk assessment framework holds the ability to explain how youth's social bonds can contribute to their fear of crime. The point to be noted is that although not statistically significant, the male youth social bonds' effect on the perceived risk of victimization and fear of crime victimization is pursuant to the proposed logic of Social Bond Theory and Ferraro's risk assessment framework.

Female Youth Social Bonds, Perceived Risk of Victimization, and Fear of Crime

Victimization. The Model 6 results (See Table 8 and Figure 7) found that female youth's parental attachment and school commitment significantly reduced fear of crime through the perceived risk of victimization. Although female youth's belief of guilt for wrongdoings reduced their fear of crime through the perceived risk of victimization, and

involvement in legitimate activities increased their fear of crime through the perceived risk of victimization, these results were not statistically significant. Therefore, this study's results are 95% confident in stating that female youth's parental attachment and school commitment minimize the youth's perceived risk and fear of crime victimization. Even though female youth's belief of guilt for wrongdoings minimized their perceived risk and fear of crime victimization, and involvement in legitimate activities increased the youth's perceived risk and fear of crime victimization, these results did not achieve 95% confidence in the data analysis.

Regarding statistical significance, Model 6 findings are similar to Model 1 findings. Overall, Model 6 Mediation Analysis identified mixed support for youth social bonds' effect on fear of crime through the perceived risk of victimization. In terms of the causal relationship, female youth's parental attachment, school commitment, and belief of guilt for wrongdoings were observed to follow the logic of Social Bond Theory and Ferraro's risk assessment framework by reducing the perceived risk and fear of crime victimization. In contrast, female youth's involvement in legitimate activities in this study sample contributed to increased perceived risk of victimization and fear of crime victimization. Overall, Model 6 results conveyed the vitality of social bonds' role in female youth's cognitive assessments of their perceived risk and an emotional response like fear of crime.

Summary

This research findings highlighted two elements of the social bonds, strong parental attachment and school commitment, as significant factors in lowering the youth's perceived risk of victimization and fear of crime victimization. In the context of youth

racial/ethnic background, this research examined the causal relationship between social bonds, perceived risk of victimization and fear of crime victimization among Black, Hispanic, and White youth. This research found a non-significant effect of all the elements of social bonds on the perceived risk of victimization and fear of crime victimization for race and ethnicity.

Gender analysis was conducted to determine the relationship between social bonds, perceived risk of victimization, and fear of crime victimization among males and females. Findings indicated that the elements of social bonds lowering male youth's perceived risk of victimization and fear of crime victimization as statistically insignificant. Whereas, for females, two elements of the social bonds, such as greater parental attachment and school commitment, were found to significantly minimize the perceived risk of victimization and fear of crime victimization.

This research results found that the social bonds elements like strong parental attachment and school commitment contributed to youth's cognitive assessment of their perceived risk and affective state like fear of crime victimization. More specifically, youth with strong parental attachment and school commitment were found to have less perceived risk of victimization and fear of crime victimization. These results applied to both males and females.

Among all youth but particularly females, parental attachment and school commitment were observed as the important social bond elements in lowering fear of crime victimization through the perceived risk of victimization. This phenomenon can be understood as the impact of social bonds such as parental attachment and school commitment, affecting youth's fear of crime. However, this effect was more significant

among female youth, suggesting a strong connection between female youth's social bonds and fear of crime victimization. The significance of the attachment and commitment aspect of social bonds over belief and involvement is consistent with previous studies that used Social Bond Theory in predicting delinquency (Costello & Vowell, 1999; Gottfredson, 2006; Kempf, 1993).

The Efficiency of Ferraro's Risk Assessment Framework

This research identified the usefulness of Ferraro's risk assessment framework in explaining adolescent fear of crime and differences in fear among male and female youth. This research found that the youth's fear of crime can be controlled through strong social bonds, especially bonds like parental attachment and school commitment.

Warr (2000) argued that controlling fear through direct target intervention is least effective and that fear of crime victimization was efficiently controlled by reducing risk perceptions. Therefore, social bonds like parental attachment and school commitment could reduce youth fear. Although other social bonds are as crucial as parental attachment and school commitment, these conclusions are formed based on this study's empirical evidence and Ferraro's risk assessment framework propositions.

Although all social bonds were found to reduce youth fear of crime, this study highlighted the importance of parental attachment and school commitment over other bonds since their effect on fear of crime through perceived risk was statistically significant. In understanding the capacity of the elements of social bonds in reducing fear of crime, Ferraro's risk assessment framework approach guided this study since it provided a logical path by suggesting to consider the perceived risk of victimization for its central role between the predictor variables and fear of crime victimization. Therefore,

this study supports using Ferraro's risk assessment framework in future adolescent fear of crime studies.

Limitations of the Study

Several limitations of the study include the use of self-report data, correctional data, lack of detailed questions for the elements of the social bonds, and secondary data, which could have impacted the validity and reliability of the findings. Therefore, the inferential ability of this study results can be tempered by the limitations as discussed below. Interpreting these research results should be done carefully by considering the following limitations.

Using self-report data brings challenges to the generalizability of the study findings. The validity of the self-report data is questioned by issues such as the inaccurate representation of attitudes and the threat of inexact recollection of views (Hindelang et al., 1979; Hindelang et al., 1981; Junger-Tas & Marshall, 1999). Therefore, exaggeration or embarrassment to express views about one's fear is possible with self-report data.

Cross-sectional data may not explain an individual's behavior in the long run and represent one's behavior or attitudes for that specific period. Since this study data was cross-sectional, the cause-and-effect relationship developed from this cross-sectional data analysis may not necessarily represent the accurate views of the study subjects.

The TCC/CW program did not have detailed questions about the elements of social bonds, which might have influenced youth responses about their social bonds. For example, youth may easily be able to answer questions about their parental attachment and school commitment because of their greater awareness of these topics. However, when it comes to belief of guilt and involvement in legitimate activities, youth may

confuse their views if these questions are not appropriately framed. As mentioned earlier, this study's social bond elements, such as parental attachment and involvement in legitimate activities, have a Cronbach alpha value of less than .70, indicating less internal consistency among the measures of parental attachment and involvement in legitimate activities.

Finally, this study relied on secondary data collected during fall 2004. The results developed from this research cannot be generalized to contemporary times. These results would provide better meaning to situations or times where there was the least social media presence. Also, COVID-19 is one of the recent interventions that happened to society and significantly impacted lives worldwide. Therefore, these results may not represent the attitudes of youth after the outbreak of COVID-19. Despite these limitations, this research attempted to integrate Social Bond Theory and Ferraro's risk assessment framework to explain youth fear of crime across various racial/ethnic and gender groups can be regarded as a vital contribution to the youth fear of crime literature.

Suggestions for Future Studies

These current research findings explain a significant effect of parental attachment and school commitment in lowering youth in general and male and female fear of crime. Even if not significant, except the Black youth parental attachment and involvement in legitimate activities, and female involvement in legitimate activities, all the elements of social bonds were found to decrease fear of crime for various youth backgrounds. Future studies employing empirically supported scales to measure elements of social bonds and conducting studies using the Ferraro's framework may produce more valid and reliable

results. Future studies should pay attention to the proportionality of the sample across youth backgrounds.

Although this study conducted Mediation Analysis, in terms of stating and interpreting the results, this study maintained its focus purely on the indirect effects of the Mediation Analysis. It is because, using Ferraro's risk assessment framework, this study's focus steadily shifted to detect the mediating role of the perceived risk of victimization between elements of the social bonds and fear of crime victimization. Indirect effect values in Mediation Analysis explain the presence of mediation effect or the causal effect among the study variables, which was the prime focus of this research. However, future studies should pay attention to the direct, indirect, and total effects of the Mediation Analysis and may provide more insight into the topic.

Often studies identified Hispanic, Asian, and immigrant youth as having strong social ties to family and community. Therefore, future studies replicating this study model specifically to Hispanic or Asian or immigrant youth may explore significant findings regarding these background youths' perceived risk of victimization and fear of crime victimization. Doing so may also explain the differences between males' and females' fear of crime among these background youth.

Compartmentalizing youth fear of crime victimization to social bonds or victimization or vulnerability views may only partially uncover the depth of youth fear of crime. Individuals are inaccurate about their perceived risk of victimization and rely on various social factors (Ferraro, 1995b). So, future studies with reference to the unearthed body of criminological evidence and etiology of emotions, considering youth's

developmental, social factors, and their physical and social environment into the study, may exclusively explain youth's perceptions of risk and emotions like fear.

Policy Implication

While fear of crime is considered a societal problem (President's Commission on Law Enforcement, 1967), the interest in minimizing fear, especially the youth's fear of crime, has fallen behind the crime control efforts. Policymakers' more significant efforts are often observed in strategies that minimize the risk of victimization. However, this research urges policymakers to consider minimizing the perceptions of risk victimization in their policies. Furthermore, the current work suggests that school and community-related policies focus on the avenues of strengthening youth's parental attachment and school commitment. Doing so may target individual-level perceptions. Policies addressing these aspects may successfully manipulate youth perceptions and alter their fear of crime victimization.

Contribution

Studies that utilized Social Bond Theory to analyze youth fear have not employed all four social bond elements. In addition, studies rarely used Ferraro's risk assessment framework to analyze the relationship between the four elements of social bonds and fear of crime, which is a significant gap in the fear of crime literature. Integrating the elements of the Social Bond Theory and Ferraro's framework to examine youth fear of crime was not done previously, and a reason for it could be the lack of logic on how the elements of the social bonds contribute to youth perceived risk of victimization and their fear. This is where the current research contributes to fear of crime literature by providing

a logic on how the elements of the social bonds contributed to youth's perceived risk of victimization and fear of crime victimization.

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APPENDIX



PRAIRIE VIEW A&M UNIVERSITY

A Member of the Texas A&M University System

To: **Myrna Cintron, Ph.D.**, Principal Investigator
Praveenrao Bolli, Co-Investigator

From: Tony Maloy, MPA
Associate Director
Office of Research Compliance

Date: March 6, 2023

Re: IRB Protocol #2023-024
Social Bonds and Fear of Crime Victimization Among Youth: An Analysis Using Ferraro's Risk Assessment Framework

After review of your application, it has been determined the proposed activities described do not meet the definition of research with human subjects according to federal regulations and IRB approval is not needed.

Thank you for the time and effort put into preparing and submitting your application. If you have any further questions, please call the Office of Research Compliance at (936) 261-1589.

A handwritten signature in black ink that reads "Tony Maloy".

Tony Maloy, MPA
Associate Director
Office of Research Compliance
Office: 936.261.1553
Email: tmaloy@pvamu.edu

CURRICULUM VITAE

Praveenrao Bolli

pbolli@pvamu.edu

EDUCATION

Ph.D., Juvenile Justice, Prairie View A&M University, Prairie View, TX, 2023

M.A., Sociology, Prairie View A&M University, Prairie View, TX, 2019

M.S., General Engineering (Mech), Prairie View A&M University, Prairie View, TX, 2019

B.Tech., Mechanical Engineering, Jawaharlal Technological University, Hyderabad, India, 2014

ACADEMIC & WORK EXPERIENCE

Graduate Teaching Assistant, Prairie View A&M University, Prairie View, TX, 2021- 2023

Graduate Research Assistant, Prairie View A&M University, Prairie View, TX, 2020- 2021

PROFESSIONAL PUBLICATIONS

Bolli, P.,* & Ouassini, N. (2022). Understanding organizational efforts regarding child soldiers in Somalia. In Sungi, S. & N. Ouassini (eds.). *Comparative criminology across western and African perspectives*. Hershey, pa: IGI Global.

Jagadish Kumar, K., **Bolli, P., *** & Cintron, M. (2021). The criminalization of low-rank castes: A historical perspective of Mahad Movement in India (1927-1937). In V. Vegh Weis, *Criminalization of activism: Historical, present, and future perspective on the over-criminalization of dissent*. Routledge.

PROFESSIONAL AFFILIATIONS

American Society of Criminology
Academy of Criminal Justice Sciences

HONORS

Third place for Graduate Student Presentation (completed study), Conference for Interdisciplinary Student Research, Prairie View A&M University, April 12, 2022.

Distinction in the doctoral comprehensive examination