

CONSEQUENCES OF CHILDHOOD ABUSE ON VIOLENCE PERPETRATION  
AMONG HISPANIC ADOLESCENTS: A PARTIAL TEST OF GENERAL STRAIN  
THEORY

By

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The purpose of this thesis is to determine whether physical and sexual abuse experienced during childhood is significantly related to violent offending among Hispanic adolescents. This study also examines if male and female adolescents respond differently to early childhood abuse and whether anger and depression mediate the relationship between abuse and violence perpetration according to Agnew's general strain theory (GST). The data analyzed in this research come from earlier studies on Mexican-American and White American drug use among at-risk students and school dropouts. Since the current research examines the impact of childhood abuse on Hispanic adolescents, only a sub-sample of the cross-sectional data is included. Findings indicate that childhood physical abuse has a significant influence on violence perpetration among male and female Hispanics. In addition, sexual abuse was found to have a significant impact on violence perpetration in the full sample as well as the female sample, but not

for the male sample. The results also indicate that anger is significantly associated with violent crime for male and female adolescents. The findings indicate that the relationship between sexual abuse and violent crime is mediated by anger for both the full sample as well as the female sample. The results also indicate a partial mediating effect by anger and depression between physical abuse and violent crime across all three samples. Therefore, the results are somewhat mixed in terms of support for Agnew's GST. Regardless of mixed support, this thesis significantly contributes to general strain theory research by examining whether GST is generalizable across gender and by examining early childhood abuse among an understudied population. Future research should focus on an examination of all aspects of GST, including coping mechanisms that are used to prevent or encourage violent offending, since the current research was not able to explore all tenets of GST. Policy implications from this study point to the need for the incorporation of culturally defined values into violence prevention and educational programming for youth.

## CHAPTER 1 INTRODUCTION

Childhood is supposed to be a cheerful, innocent, and care-free time of life. However, some children do not have such a fairytale childhood. Many children experience early years that are characterized by fear, apprehension, and unease. Family violence, and particularly child abuse, can disrupt a child's life leaving him or her in a constant state of anxiety and fear. This perpetual state of chaos can have long lasting effects on the rest of the child's life.

A vast amount of research has examined childhood abuse. Research is so broad, that it is unlikely to name all areas of study on abuse. However, abuse research includes, but is not limited to topics ranging from short term to long term effects of abuse, the association between abuse and emotional problems, different effects of abuse on males and females, influences of abuse on future relationships, and the relationship of abuse and subsequent offending, including property, status, non-violent, violent, and substance abuse offending.

Although childhood abuse is an important and often studied problem, little research has been done that examines child abuse among a Hispanic population. Of the research that has been done, studies report mixed findings. In a study by Kercher and McShane (1984), Hispanic females reported more sexual victimization compared to White females. However, Sorensen and Siegel (1992) reported that sexual assault was more prevalent among Whites than Hispanics. While those two studies reported differences between the two populations, Lindholm and Willey (1986) examined the Los Angeles County

Sheriff's Department child abuse reports and did not find any differences between Hispanics and Whites. Weller, Kimbal-Romney, and Orr (1987) also reported no differences between parental physical punishments of Hispanics versus Whites. Because of the inconsistencies of the research thus far and the limited amount of research on the consequences of childhood abuse in a Hispanic population, this study will specifically focus on Hispanic adolescents to determine how childhood abuse affects subsequent violent offending.

Previous research has found that physically and sexually abused adolescents were more likely to demonstrate a wide variety of negative psychological and behavioral problems compared to non-abused adolescents. Psychological problems included anger, anxiety, depression, low self-esteem, and aggression while behavioral problems included juvenile delinquency, substance abuse, self-injurious behaviors, and adult criminality. Previous research has also examined gender differences in relation to childhood abuse. Generally, most research indicates that males were more likely to externalize their emotions and take their emotions out on others by becoming more aggressive whereas females were more likely to internalize their feelings and take their emotions out on themselves by using drugs or developing other personal problems, such as eating disorders.

Agnew's general strain theory (1992) suggests that an individual can experience three types of strain: failure to achieve positively valued goals, removal of positively valued stimuli, and presentation of noxious stimuli. Individuals who are unable to effectively manage strain are more likely to experience negative affective states. Negative affect refers to negative emotions or feelings that often include anger,

depression, guilt, anxiety, and many more emotions. Individuals who are unable to effectively cope with these negative emotions using three legitimate coping strategies: cognitive, behavioral, or emotional, are more likely to engage in delinquent behavior. GST is considered a “general” theory and can be used to examine whether males and females respond in a similar manner to various types of strain. The purpose of this thesis is to partially test Agnew’s GST in regards to noxious stimuli (abuse) and delinquent outcomes, particularly violent offenses, among a Hispanic population. Agnew proposes that general strain theory can be used to explain criminality among all social classes and races. Therefore, GST should also be generalizable across gender and ethnicity. Agnew’s general strain theory (GST) (Agnew, 1992) asserts that an individual who is unable to effectively cope with negative emotions is more likely to become involved in delinquent or criminal behavior. GST is considered a “general” theory and can be used to examine whether males and females respond in a similar manner to various types of strain. The purpose of this thesis is to partially test Agnew’s GST in regards to noxious stimuli (abuse) and delinquent outcomes, particularly violent offenses, among a Hispanic population. This thesis will also be examining gender differences in response to the strain.

The purpose of this study is to determine whether physical and sexual abuse is significantly related to violence perpetration among Hispanic adolescents. This study also examines gender differences in response to strain (childhood abuse) and if negative emotions, such as anger and depression, mediate the relationship between strain and delinquency. Based on prior research, it is expected that childhood abuse will increase the risk of violence perpetration, especially among males. It is also expected that males

will be more likely to be affected by anger by behaving aggressively with more violent crime compared to females. In addition, it is expected that negative emotions, anger or depression, will intervene in the influence that childhood abuse has on violence perpetration. Specifically, anger will most likely promote violence perpetration for male adolescents and depression will inhibit violent behavior for female adolescents.

The data used in this study come from earlier studies on Mexican-American and White American drug use among at-risk students and school dropouts. Between 1988 and 1992, new cohorts of adolescents were given an identical questionnaire that included questions regarding various social, psychological, and environmental factors that may have influenced their academic status. These data were collected from a fairly small community, a medium-sized city, and a large city in the Southwest. The data used in this analysis were collected during the first four years of the study and therefore constitute a sub-sample of the original data.

This thesis will begin with a review of the literature on the psychological and behavioral consequences of childhood abuse and the effects of abuse across gender and ethnicity. Chapter 3 will explore GST and its applicability to males and females. It is important to note that this study does not fully explore all tenets of Agnew's GST because possible coping mechanisms that may influence adolescent responses to strain are not examined. Therefore, the current research constitutes a partial test of Agnew's general strain theory. Chapter 4 will describe the methodology for this research and chapter 5 presents the results from the analysis. Chapter 6 discusses conclusions and limitations of this study.

## CHAPTER 2 LITERATURE REVIEW

An abundant amount of research has examined the negative consequences experienced by those who were victims of physical and sexual abuse during childhood. Previous research has suggested that childhood physical and sexual abuse is related to a wide variety of negative psychological and behavioral outcomes that include anxiety, depression, anger, aggression, low self esteem, substance abuse, self destructive behavior, and self injurious behavior (Berliner & Elliott, 2002; Briere & Elliott, 2003; Briere & Runtz, 1993; Browne & Finkelhor, 1986; Davis & Petretic-Jackson, 2000; Dembo, Williams, Schmeidler, Berry, Wothke, & Getreu, 1992; Dembo, Wothke, Shemwell, Pacheco, Seeberger, & Rollie, 2000; Finkelhor, 1990; Kendall-Tackett, Williams, & Finkelhor, 1993; McClellan, Adams, Douglas, McCurry, & Storck, 1995; Kolko, 2002; Neumann, Houskamp, Pollock, & Briere, 1996; Polusny & Follette, 1995). According to earlier research, depression was the most common psychological problem experienced by victims of childhood sexual abuse (Briere, 1989; Browne & Finkelhor, 1986; Finkelhor, 1990; Gover, 2004; Koverola, Pound, Heger, & Lytle, 1993; Peters, 1988; Ratican, 1992). Depression was also common among victims of other types of abuse such as physical abuse and neglect (Allen & Tarnowski, 1989; Kaufman, 1991; Kazdin, Moser, Colbus, & Bell, 1985).

Previous research has reported mixed results in regards to differences across gender and the psychological effects of child maltreatment. Feiring, Taska, and Lewis (1999) found that females were more likely to develop depressive symptoms than males.

However, other researchers have found no variation in psychological symptoms across gender (Briere, Evans, Runtz, & Wall, 1988; Feiring et al., 1999; Finkelhor, 1990; Gover, 2004).

### **Childhood Abuse**

Child abuse and neglect has been one of the most prevalent problems facing society in recent decades. In 2002, over one million children were reported to be victims of abuse and neglect at a rate of 19.5 per 1,000 children (Child Welfare League of America, 2005). Child Protective Services concluded that nearly 900,000 were considered victims of child abuse or neglect based on data reported from the National Child Abuse and Neglect Data System (NCANDS) (Child Maltreatment, 2004). The NCANDS collected and analyzed data submitted voluntarily by the States and the District of Columbia. The data included case level information on all children that received an investigation by a child protective service agency (2004). NCANDS reported 20 percent of victims of child maltreatment were victims of physical abuse and 10 percent were victims of sexual abuse (2004). Over 60 percent were victims of neglect and less than 10 percent were victims of emotional abuse (2004).

Physical abuse refers to any type of non-accidental physical injury inflicted on a child such as burning, hitting, punching, shaking, kicking, beating, or any other form of harming a child (National Clearinghouse on Child Abuse & Neglect Information, 2005; Allen & Tarnowski, 1989; Gover, 2004; Kaufman, 1991; Kazdin et al., 1985; Kelly, 1983; Malinosky-Rummell & Hansen, 1993). This form of violence may or may not be the result of over zealous punishment or extreme discipline that is inappropriate for the age of the child (National Clearinghouse on Child Abuse & Neglect Information, 2005).

Sexual abuse refers to inappropriate sexual behavior inflicted on a child, such as fondling a child's genitals, forcing the child to fondle an adult's genitals, intercourse, rape, sodomy, sexual exploitation, or exposure to pornography (National Clearinghouse on Child Abuse & Neglect Information, 2005; Browne & Finkelhor, 1986; Finkelhor, 1990). Numerous studies report that childhood sexual abuse is related to a variety of harmful and destructive behaviors including sexualized behavior, aggression, and withdrawal (Browne & Finkelhor, 1986; Davis & Petretic-Jackson, 2000; Dembo et al., 1992; Dembo et al., 2000; Gover, 2004; Kendall-Tackett et al., 1993; McClellan et al., 1995).

Childhood abuse can come in many forms: neglect, emotional, physical, and sexual. Regardless of the type of abuse a child suffers, it can create long lasting effects. The following sections will discuss the negative psychological and behavioral consequences experienced by victims of abuse during childhood.

### **Psychological Consequences**

Previous research studies have examined the psychological consequences of both physical and sexual abuse and have found that abuse greatly effects psychological functioning (Browne & Finkelhor, 1986; Hussey & Singer, 1993; Williamson, Bourduin & Howe, 1991). There has been an extensive amount of research examining the effects of childhood sexual abuse on psychological development and adjustment. Briere and Runtz (1993) found that adolescents with a history of sexual abuse demonstrated an assortment of emotional and behavioral problems. Previous research has consistently found that adolescents who had a history of childhood sexual abuse experienced greater levels of depression, general psychological distress, aggression, lower self esteem, more conduct problems, and more substance abuse problems (Brown, Cohen, Johnson, &

Smailes, 1999; Fergusson, Horwood & Lynskey, 1996; Garnefski & Arends, 1998; Garnefski & Diekstra, 1997; Harrison, Hoffman, & Edwall, 1989; Kendall-Tackett et al., 1993; Luster & Small, 1997; Meyerson, Long, Miranda, & Marx, 2002). However, Browne and Finkelhor (1986) found that victims that report their abuse to the police experience less psychological problems than victims who do not, likely due to support and legitimate coping resources provided by the authorities.

Meyerson and colleagues (2002) used a sample from the US Department of Labor Job Corps to examine the relationship between sexual abuse, physical abuse, family conflict and psychological difficulties across gender. The authors reported that a history of physical and sexual abuse in addition to family conflict and cohesion predicted psychological problems that included depression and distress. Further analyses by gender revealed that different types of abuse predicted different types of psychological adjustment for males and females. The variation across gender will be discussed further in the gender differences section of this paper.

Flisher and colleagues (1997) found that adolescents with a history of physical abuse had more adjustment difficulties, such as lower social capabilities, decreased language aptitude, and poorer school performance than non-abused adolescents. Physically abused adolescents were also more likely to have numerous psychiatric conditions including major depression, generalized anxiety disorder, and conduct disorder, compared to non abused adolescents (Briere & Runtz, 1988; Flisher et al., 1997; Kaplan & Pelcovitz, 1982; Kolko, Moser & Weldy, 1988; Malinosky-Rummell & Hansen, 1993; Meyerson et al., 2002).

In sum, research has repeatedly shown that victims of childhood physical and sexual abuse report greater levels of psychological adjustment problems compared to non-abused adolescents. Not only has research shown that childhood abuse increases psychological problems, but it also increases the likelihood of social incompetence (Eckenrode, Laird, & Doris, 1993; Herrera & McCloskey, 2001; Salzinger, Feldman, Hammer & Rosario, 1993). Research has also consistently found that victims of childhood abuse report greater levels of behavioral problems compared to non-abused children which will be discussed further in the following section.

### **Behavioral Consequences**

There has been a vast amount of research on the effects of physical and sexual abuse on subsequent behavioral problems (Brown et al., 1999; Fergusson et al., 1996; Garnefski & Arends, 1988; Garnefski & Diekstra, 1997; Harrison et al., 1989; Kendall-Tackett et al., 1993; Luster & Small, 1997; Meyerson et al., 2002). However, previous literature that has examined the effects of abuse on delinquency has been somewhat mixed. Early research examined the association between childhood abuse and delinquency using clinical, cross-sectional, or retrospective studies (Kratcoski & Kratcoski, 1982; Lewis, Shanok, Pincus, & Glaser, 1979; Mouzakitis, 1981; Silver, Dublin, & Lourie, 1969; Smith, & Thornberry, 1995; Steele, 1976; Wick, 1981). This research was unreliable and not generalizable due to numerous methodological problems that include unrepresentative samples and retrospective designs. More recent studies examined the relationship between childhood abuse and subsequent delinquency by using prospective designs which include control groups and research designs that followed victims over time to determine the risk of later delinquency (Garbarino & Plantz, 1986;

Howing, Wodarski, Kurtz, Gaudin, and Herbst, 1990; Smith & Thornberry, 1995; Widom, 1989a).

One of the first studies to use a prospective design was by a group of researchers, Bolton, Reich, and Gutierrez (1977). Using a sample of 5,392 children with reported abuse in Arizona and a comparison group of non-abused siblings, the authors found that sixteen percent of the abused group had juvenile court records compared to eight percent of the non-abused siblings.

Alfaro (1981) examined a sample of 4,465 children who were officially identified as abuse victims by New York protective services agencies during 1952 and 1953. By researching juvenile court records through 1967, he discovered that about ten percent of the abused children had a criminal history compared to only about two percent of the general juvenile population of the state.

McCord (1983) used early case records of a sample of 233 males and placed them in four categories ranging from “neglected,” “abused,” “rejected,” and “loved.” After following the subjects for forty years, she reported that the “rejected” subjects had significantly higher rates of delinquency compared to the “loved” subjects. The “neglected” and “abused” subjects’ delinquency rates fell in between the “rejected” and “loved.” She also found that nearly half (45%) of the abused and neglected males had a history of serious crimes, had alcohol or mental health issues, or died very young (1983).

Widom (1989a, 1989b, 1989c, 1991) studied the delinquency rates of a sample of 908 abused subjects compared to a matched control group of non-abused subjects. Abused subjects were drawn from juvenile court cases in a metropolitan Midwest area during 1967 through 1971. She found that rates of official delinquency were greater and

began earlier in the abused group compared to the control group. She also discovered that the abused group had higher rates of general delinquency especially in status and property offenses as well as higher rates in violent offenses among abused males.

Zingraff, Leiter, Johnson, and Myers (1994) used a random sample of cases reported to the Registry of Child Abuse and Neglect in a county of North Carolina during 1983-1989 and matched two control groups to investigate whether abuse was a risk factor for general delinquency. Zingraff et al., (1994) reported that subjects from the abused group had higher rates of general delinquency and status offense referrals to juvenile court compared to the control group. However, this was not the case for violent and property offenses.

Smith and Thornberry (1995) used a sample from the Rochester Youth Development Study (RYDS) along with data from Rochester public schools, police department, and Department of Social Services to determine if abuse was a significant risk factor for delinquent behavior. Consistent with Widom (1989a) and Zingraff, Leiter, Myers & Johnson (1993), Smith and Thornberry (1995) concluded that a history of childhood abuse significantly increased involvement in both self-reported and official reports of delinquency.

Ireland, Smith, and Thornberry (2002) also used a sample from the Rochester Youth Development Study to determine the relationship between when the abuse occurred, whether in childhood only, adolescence only, persistent, or never, and the risk for juvenile delinquency. Ireland and colleagues (2002) reported that abuse experienced only during childhood increased the risk for violent crime only in early adolescence but

not in late adolescence. The authors went on to report that abuse during adolescence and persistent abuse predicted both subsequent delinquency and drug use.

In sum, research has consistently reported that childhood abuse has serious long-term consequences that include both juvenile delinquency and adult criminality. Research has consistently shown that abuse increases the risk of both general delinquency as well as violent delinquency. (Farrington, 1991, Malinosky-Rummell & Hansen, 1993, Rivera & Widom, 1990, Smith & Thornberry, 1995; Widom, 1989a; Zingraff et al., 1993). Malinosky-Rummell and Hansen (1993) as well as Widom (1989a), reported that abused males were more likely to demonstrate more violent behavior which will be discussed further in the following section. This section will further discuss variations across gender in psychological and behavioral consequences of childhood abuse.

### **Gender Differences in Psychological and Behavioral Consequences of Childhood Abuse**

Previous research has examined different responses to physical and sexual abuse based on the victim's gender. Research has found that females were more likely to experience depressive symptoms and internalize their feelings (Feiring et al., 1999) whereas males were more likely to externalize their emotions and be more aggressive against others (Chandy, Blum, & Resnick, 1996).

According to research by Chandy and colleagues (1996), male victims of childhood sexual abuse were more likely to experience more delinquent behavior, marijuana use, difficulties in school, and more involvement in unsafe, high risk sexual behavior. Females, on the other hand, were more likely to have eating disorders, suicidal ideation, and more problematic alcohol related behavior. Conversely, Garnefski and Arends (1988) reported that emotional and behavioral problems were equivalent across gender.

They did go on, however, to specify that males were more likely to exhibit more aggressive and delinquent behavior than females.

Meyerson et al., (2002) explored the impact of the family environment on non-abused and physically and sexually abused adolescents to determine if family characteristics played a role in psychological adjustment of abused adolescents. The results indicated that *physical* abuse and family environment were predictive of both depression and distress in males, whereas *sexual* abuse and family environment were predictive of psychological distress in females. They also reported that family conflict was a good predictor of distress for both males and females.

Horwitz, Widom, McLaughlin, and White (2001) compared male and female victims of physical and sexual abuse to matched control groups to determine the impact of childhood victimization on mental health in adults. Using documented court cases of childhood abuse and neglect from 1970, the authors interviewed subjects 20 years later and found that males with a history of childhood abuse and neglect were more likely to experience depression, antisocial personality disorder, but fewer alcohol related problems than the control group. Females with a history of childhood abuse and neglect were more likely to report more depressive symptoms, antisocial personality disorder, and alcohol related problems compared to the matched control group. However, after the researchers controlled for stressful life events, childhood victimization was found to have an insignificant impact on lifetime mental health problems.

Herrera and McCloskey (2001) examined gender differences and the impact of exposure to both marital violence and physical child abuse on delinquency. Using a sample of 299 adolescents recruited from shelters and the general community, they found

no variance in the number of referrals to juvenile court between males and females. Consistent with previous research, Herrera and McCloskey (2001) reported that males committed more violent crimes, felonies, and property offenses than females (Normland & Shover, 1977; Steffensmeier & Steffensmeier, 1980; Widom, 1989a). However, girls were just as likely as boys to be referred to court for status offenses, petty theft, and running away.

As for the effects of marital violence and physical violence on subsequent delinquency, the authors reported that witnessing marital violence predicted overall offending. Herrera and McCloskey (2001) also reported some variation in how abuse in the home affected males and females. They found that abused girls were seven times more likely to commit a violent offense compared to non-abused girls. However, girls were more likely to commit violence against a sibling or parent, compared to boys who were more likely to fight with strangers or friends (Chesney-Lind, 1998).

Research on the relationship between gender and delinquency as a consequence of childhood abuse has been fairly consistent. Most research has shown that males tend to externalize their anger and emotions and act out against others in more aggressive ways by becoming violent, whereas females were more likely to internalize their emotions and report more depressive symptoms (Chandy et al., 1996; Feiring et al., 1999; Meyerson et al., 2002). Research has also suggested that other factors, like family environment, play a role in gender variation of delinquency rates. Herrera and McCloskey (2001) reported that girls were just as likely as boys to be arrested and referred to court particularly in cases where the child witnessed marital violence. The following section will discuss the research examining childhood abuse among a Hispanic population.

### **Child Abuse and Hispanic Populations**

Although childhood abuse is an often studied phenomenon, there is limited research on childhood abuse among a Hispanic population. The research that has examined childhood abuse among Hispanics has been inconsistent. Kercher and McShane (1984) studied an adult population in Texas examining characteristics of sexually abused children. Although less than 10% of the sample reported sexual victimization, Hispanic females reported the highest level of victimization, followed by black and white females, respectively. However, Kercher and McShane (1984) found that Hispanic males reported the lowest victimization.

Shaw, Lewis, Loeb, Rosado, and Rodriguez (2001) examined the effects of sexual abuse across Hispanic and African- American girls. Shaw et al., (2001) reported that Hispanic girls reported more sexual abuse incidents than African-American girls and also waited longer to report the incident. It was also reported that sexually abused Hispanic girls also experienced more emotional and behavioral problems including anxiety, depression, and aggressive behaviors compared to African-American abused girls.

Mennen (1995) studied psychological responses of sexual abused girls across ethnic groups. No differences across ethnicity were found in predicting psychological responses to sexual abuse. However, Hispanic females reported higher levels of anxiety, depression, and lower self-esteem, if vaginal penetration occurred.

On the other hand, Sorensen and Siegel (1992) examined the risk of experiencing sexual assault based on gender and ethnicity. The researchers found that in a sample of 3,000 community residents, Hispanics and men were less likely to report sexual assault compared to non-Hispanics and women. However, repeat victimization was not influenced by gender or ethnicity. It was reported that women who were assaulted were

more likely to experience emotional and behavioral problems compared to men regardless of ethnicity.

Other researchers have found no difference in childhood abuse across ethnicity. Lindholm and Willey (1986) analyzed over 4,000 cases of child abuse as reported to the Los Angeles County Sheriff's Department looking for variation across ethnic groups as well as differences in family structure and family attitudes. However, no differences were reported between whites and Hispanics.

Perez (2001) examined ethnic differences in property, violent, and sex offending in abused and non-abused adolescents. Using a sample of 2,466 Mexican-American and non-Hispanic white adolescents between the ages of thirteen and nineteen, she found that physical abuse and sexual victimization increased delinquency across all three measures. However, the effects of abuse were similar for both Mexican-American and non-Hispanic whites.

Childhood abuse across ethnicity is understudied. Previous research has been inconsistent in regards to the effects of abuse on a Hispanic population. Some research has reported that Hispanics differ from other populations suggesting they report higher levels of abuse as well as stronger emotional and behavioral responses to the abuse compared to other ethnicities (Kercher & McShane, 1984; Shaw et al., 2001). However, other research reports no difference in the level of abuse or response to abuse across ethnicity (Menen, 1995; Lindholm & Willey, 1986; Perez, 2001). Future research needs to continue examining childhood abuse and its effects across various populations.

The following chapter will discuss Agnew's general strain theory as well as discuss its ability to be used as a "general" theory and explain delinquency across gender and race.

### CHAPTER 3 GENERAL STRAIN THEORY

Classical strain theory focused on social structural variables to establish the link between strain and delinquency. According to Merton (1938), Cohen (1955), and Cloward and Ohlin (1960), classical strain theory suggested that delinquency was a result of being unable to achieve monetary success or other culturally valued goals through legitimate channels. This disappointment created strain and frustration, which increased the likelihood of a deviant response. According to classical strain theory, several factors including the level of social control and the association with criminal others, influence whether the individual responded to the strain with crime. Agnew expanded traditional strain theory by identifying social-psychological aspects of strain that traditional theories did not consider.

Agnew (1992) extended classical strain theory by suggesting there were other types of strain that may lead to crime. He identifies three major sources of strain. The first major source of strain is the failure to achieve positively valued goals, which are broken down into three additional categories: the disjunction between aspirations and expectations, the disjunction between expectations and actual achievements, and the disjunction between just/fair outcomes and actual outcomes. The disjunction between aspirations and expectations is often experienced by lower-class individuals who are unable to achieve culturally valued success or middle class status through legitimate means. The disjunction between expectations and actual achievements occurs when an individual is unable to achieve personal goals or relative achievements of others. The

disjunction between just/fair outcomes and actual outcomes occurs when one does not feel he or she has been fully compensated for his or her achievements.

The second major type of strain is the removal of positively valued stimuli and the third type is the presentation of negative or noxious stimuli (Agnew, 1992). The removal of positively valued stimuli may include a loss of significant relationships or objects. This source of strain may lead to delinquency or crime when one tries to retain this valued stimuli. The third type of strain, presentation of noxious stimuli can be understood as a negative experience or aversive situation, including verbal insults or attacks, physical abuse, or negative relations. This source of strain may lead to delinquency as the individual tries to escape or avoid the negative stimuli, mitigate the negative stimuli, seek revenge against those presenting the negative stimuli, or manage the negative emotional states (Agnew, 1992).

GST projects that all three types of strain are likely to increase the possibility that an individual will suffer from negative emotions in comparison to the magnitude, duration, and recency of stress. The most critical negative emotion, according to Agnew, is anger, specifically when one feels he has been treated unfairly and increases the desire for retaliation against the source of the strain. According to Agnew (2001), strains that are most likely to result in crime are those that are perceived as unjust and high in magnitude, associated with low social control, and create a desire for vengeance.

Agnew (1992) asserts that strain induced negative emotions, such as anger or resentment, can be directly associated with crime or delinquency if effective coping strategies are not employed. Various tests of GST have produced conflicting results concerning whether strain has a direct relationship with crime or whether negative

emotions mediate between strain and criminal behavior. Piquero and Sealock (2000) as well as Broidy (2001) found that strain induced anger was the primary negative emotion that had a significant effect on deviance. However, other studies found that the mediating effect of anger is restricted only to situations of violence (Aseltine, Gore, & Gordon, 2000; Capowich, Mazerolle, & Piquero, 2001; Mazerolle, 1998; Mazerolle & Piquero, 1998; Piquero & Sealock, 2000). Further, Mazerolle, Burton, Cullen, Evans, and Payne (2000) found that strain rather than anger had a direct effect on crime with anger having a more indirect effect. GST asserts that an individual will feel strain unless he or she is able to successfully cope with strain by utilizing effective coping strategies. If legitimate coping strategies are not utilized, other means to rectify the situation including illegal or delinquent activity may occur.

Agnew (1992) suggests that the inability to cope effectively with negative emotions may lead to crime. He identifies three major coping strategies that an individual can use to *adjust* rather than *respond* to strain: cognitive, behavioral, and emotional strategies. Three general *cognitive* strategies used to adapt to strain are to minimize the difficult situation, reduce standards for evaluating outcomes, and admit that one is personally responsible for the situation. An individual may also choose to cope with adversity using *behavioral* strategies, such as attempting to remedy the situation or react with retaliation. *Emotional* strategies may also be utilized for dealing with adversity varying from using drugs<sup>1</sup> to exercise to meditation.

Agnew postulates that his general strain theory can be used to explain criminal behavior among all social classes. Since the formulation of this theory, it has been tested

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<sup>1</sup> It is important to note that some scholars believe that drug use is not a coping mechanism and is instead a behavioral outcome.

and analyzed with a wide range of samples to determine the generalizability of the theory. The following section will discuss the various tests of GST over the years among criminal populations, non-offending populations, adolescents, adults, as well across race and gender.

### **Empirical Tests of GST**

Since the development of GST, there have been numerous studies analyzing its theoretical aspects as well as its application to individuals of different groups. Agnew and White (1992) conducted one of the first tests of GST. Using a cross-sectional sample of juvenile delinquents, they found that negative life events, such as poor relationships with adults, peer hassles, and neighborhood problems were significantly associated with delinquency and drug use after holding measures of social control and differential association constant. Agnew and White (1992) also found that strain would have more of an impact on individuals with delinquent peers than on those with higher levels of social support and self-efficacy.

Paternoster and Mazerolle (1994) conducted a similar test of GST using the National Youth Survey. Strain was also found to be positively associated with delinquency after holding measures of social control and differential association constant. Their preliminary causal model indicated that strain weakened social bonds and increased associations with deviant others, therefore, indirectly affecting delinquency.

Using a sample of high school youth from the Northeast, Aseltine and colleagues (2000) tested the mediating effect of personal and social resources on strain and delinquent behavior. They found adolescent violent behaviors were significantly and positively associated with negative life events and conflict with family members. However, little support was found for strain's impact on marijuana use suggesting that

GST may only be applicable to violent behaviors. Aseltine et al., (2000) also found little support for the interaction effect of deviant peers, self-efficacy, and parental support on the association between strain and deviant behavior. However, Mazerolle et al., (2000) found risk factors, such as deviant associates and weak social controls, interacted with strain to promote nonviolent behavior and a direct effect of strain on violent behavior.

Brezina (1996) used the Youth in Transition (YIT) survey to examine GST's argument that delinquency was an adaptive response used to cope with negative emotional consequences of strain. Brezina's (1996) findings suggested that strain was positively correlated with negative emotions such as anger, resentment, anxiety, and depression. Further, delinquent behavior was also found to minimize the impact of strain. Consistent with GST, Brezina's (1996) findings suggested that deviant behavior relieves some of the negative emotions associated with strain.

Agnew, Brezina, Wright, and Cullen (2002) studied individual reactions to strain by examining personality traits among children ages seven to eleven. A significant association was found between family, school, peer, and neighborhood strains and delinquency. They also concluded that individuals with negative emotionality and low constraint would be more likely to respond to strain with delinquency.

Other research has examined GST among high school and college students. Mazerolle and Piquero (1997, 1998) examined the role of anger as an intervening variable between strain and delinquency using a sample of high school students from a metropolitan mid-west city. The authors found limited support that anger intervenes between strain and deviant behavior. The authors also controlled for the effects of moral

beliefs and deviant peers and found some support for GST and the assertion that anger mediates between strain and deviant behavior.

In 2001, Broidy similarly examined the relationship among strain, anger, coping, and crime. Using a sample of college students at a northwestern university, Broidy tested three hypotheses: 1) the three types of strain are associated with negative affect (anger and other negative emotions); 2) anger and other negative emotional responses to strain are correlated with legitimate coping; and 3) strain induced anger will increase the likelihood of illegitimate outcomes when controlling for legitimate coping. Mixed support was found for GST and the assertion that anger is positively linked to strain and deviance when controlling for various demographic, personality, and social influences.

Broidy found that all three types of strain were significantly related to strain induced anger, but that anger had a *negative* effect on strain when the type of strain was the failure to achieve one's goals. Therefore, it appeared that the type of strain and type of emotional response determined the nature of the relationship between strain and negative emotions. Testing hypothesis two, Broidy (2001) found that only non-angry negative emotions were positively correlated with legitimate coping. Further, strain induced anger was not significantly associated with legitimate coping. When controlling for legitimate coping, Broidy found that strain induced anger was positively related to delinquent outcomes which is consistent with GST.

Piquero and Sealock (2000) extended GST research to include the criminal actions of juvenile offenders. They examined the relationship between strain, negative emotions, coping, and both interpersonal and property offending. The results of their study

revealed expected support for GST, specifically, that negative affect, especially anger, intervened between strain and delinquent behavior in interpersonal offenses only.

GST has also been examined across race. Jang and Johnson (2003) used the 1980 National Survey of Black Americans to examine the possibility of additional psychological distress due to experiences of racism and economic disadvantage. They also examined inner- and outer- directed emotions in relation to coping with strain and negative emotions in deviant or non-deviant ways. Inner-directed emotions were measured by asking participants about their emotional responses during the time they experienced personal problems, including feeling “lonely” and “depressed” (2003). The authors found a positive association between strain and negative emotions, which also led to a positive association between strain and deviant behavior. Furthermore, they found that outer-directed emotions, such as anger, had a more significant effect on outer-directed deviance and inner-directed emotions had a significant effect on inner-directed deviance. The authors also concluded that white individuals may be affected more by inner-directed emotions compared to black individuals.

Watt and Sharp (2002) examined race differences in suicidal behavior among socially strained adolescents. The authors used data collected from the Add Health Project, a study of health related behaviors among adolescents funded by the National Institute of Child Health and Human Development. Several measures of Agnew’s general strain theory were examined, including status strain and relational strain. The results indicated that black males were less likely to respond to status strains with suicide attempts than white males. Black males, however, were found to be more likely to be affected and attempt suicide in response to relational strains than white males. White

females, like their white counterparts, were more likely to attempt suicide in response to status strains than black females. Relational strains were found to be a risk factor for both white and black females although there was slight differentiation between the relational strains.

Eitle and Turner (2003) furthered Agnew's research by examining the relationship between race and the stress-crime association based upon the principles of GST. The results revealed support for GST by demonstrating a relationship between race, stress exposure, and criminal behavior. Eitle and Turner reported that blacks reported significantly more exposure to stressful events than other racial groups therefore explaining the higher rates of delinquency among that population.

Kaufmann (2005) also used Add Health data to examine the relationship between race/ethnicity and violent crime while examining the mediating factor of neighborhood and community context. Kaufman used various theories, including general strain, social learning, and self-control to analyze this relationship. The results indicated that neighborhood context was a strong mediating factor when combined with individual social psychological processes. This interaction helped explain the relationship between race/ethnicity and violence. According to Agnew (1992, 2002), witnessing or experiencing violence was the most severe strain and would most likely lead to delinquency. Attara, Guerra, and Tolan (1994) found that individuals living in disadvantaged communities were more likely to be a victim of violence or witness a violent incident than individuals not living in such communities. Further, black and Hispanic adolescents are more likely to live in disadvantage neighborhoods than white

adolescents leading to an increased risk in exposure to violence and therefore leading to an increase in delinquency rates.

Perez (2005) analyzed Agnew's general strain theory by including principles of acculturation theory to determine if GST was generalizable across other ethnicities, particularly Hispanics. It was believed that being Hispanic would subject individuals to special types of strain, including prejudice and discrimination, which would in turn increase the likelihood of delinquency. It was reported that GST does generalize to Hispanics and that certain ethnic-specific strains could increase the risk of violence. Further, this evidence supports Agnew's theory that it can be generalizable across all races and ethnicities.

### **Gender and General Strain Theory**

Early criminological theories focused primarily on explaining male delinquency using traditional strain, differential association, social control, and sub cultural factors. However, other theories, such as Chesney-Lind's theory of female delinquency, were specifically applied to female delinquency (Chesney-Lind, 1998). However, Agnew's general theory applies to both male and female delinquency. Broidy and Agnew (1997) outlined differences in behavioral outcomes between males and females that experience similar strainful situations. They argued that the differences in the behavioral outcomes were based on how each gender typically processed events and their relationships with others.

Broidy and Agnew (1997) offer three primary explanations of substantially higher crime rates for males compared to females. They argue that males experience different strains compared to females, males respond differently in ways that are more conducive to crime than females, and males are likely to react to anger and strain with crime.

Concerning the first explanation, some studies report that females experience greater levels of strain compared to males (Turner, Wheaton, & Lloyd, 1995). Second, Broidy and Agnew explain that male reactions to strain may be more conducive to crime because males are more likely to get angry whereas females are more likely to get depressed. Numerous studies reveal that females are more likely to internalize their feelings in response to strain with depression whereas males are more likely to blame external factors and act out aggressively on anger (Broidy, 2001; Cyranowski, Frank, Young, & Shear, 2000; Leadbetter, Blatt, & Quinlan, 1995). Third, Broidy and Agnew suggest that males may be more likely to respond to strain with anger and delinquent responses because they have less efficient coping resources and skills compared to females.

Broidy and Agnew (1997) suggest four explanations to why males are more likely to respond to strain with crime. First, males are more likely to have higher self esteem and a sense of mastery compared to females. Females may also be less likely to respond to strain with crime because they may not feel secure enough in themselves to act out against others but may be more likely to internalize their feelings into self destructive behavior, such as drug abuse or eating disorders.

Second, Broidy and Agnew (1997) postulate that females may be more at risk if they respond to strain with crime because they typically have smaller, intimate friendship groups. Females may have more emotional support from their close personal groups, but they also have more to lose if their behavior is incongruent with the basic morals of their friendship network. Cyranowski and colleagues (2000) suggest that females are socialized to focus more on their relationships with others as they develop their sense of self whereas males are socialized to focus on themselves and becoming independent.

Males may also be more likely than females to respond to strain with crime because males have more opportunities to engage in criminal behavior than females. Males often have more freedoms and lower social controls and are more likely to socialize with delinquent others than females (Broidy & Agnew, 1997).

Fourth, Broidy and Agnew (1997) suggest that stereotypes may play a role in males being more deviant than females in response to strain. Although both males and females feel anger in response to strain, females are taught that it is inappropriate to act out on their anger which is often accompanied by guilt and depression. Females, then, are more likely to internalize their anger and take it out on themselves. However, it is more socially acceptable for males to respond to strain with anger and act out against others.

### **Empirical Tests of GST and Gender**

GST has been empirically tested across gender to explain sex differences in criminality (Broidy & Agnew, 1997; Eitle, 2002; Hay, 2003; Hoffman & Su, 1997; Mazerolle, 1998; Piquero & Sealock, 2004). Many authors have analyzed the different types of strain that men and women experience as well as the levels each experience and how it was related to deviance. Broidy and Agnew (1997) focus on two distinct questions regarding gender and crime: why males have a higher rate of crime compared to females and what are the causes of female crime. Based on their study, the authors contend that males are more likely to have a higher rate of crime because males experience different types of strain and respond differently to strain. Males are more likely to experience strain related to financial strain that contributes to an increase in property crime as well as violent crime. Females, on the other hand, are more likely to experience strain involving higher levels of social control and less opportunity for criminal activity. Broidy and Agnew (1997) also assert that the gender gap in criminality

may also be a function of different emotional responses to strain. They suggest that although both males and females respond to strain with anger, males are more likely to be aggressive whereas females are more likely to internalize their anger to include self destructive behaviors, such as eating disorders and drug use. Concerning the causes of female criminality, Broidy and Agnew (1997) report that females are more likely to respond to strain with crime when they are unable to effectively cope with strain by utilizing legitimate means. They also show that females with low social control, deviant associates, and opportunities for crime are also more likely to have a higher rate of crime.

Broidy and Agnew (1997), as well as, Eitle (2002) examined the strain of gender oppression and female criminal activity. Eitle (2002) found a positive association between an experience of gender discrimination and the likelihood of female criminal activity. However, experiences of everyday discrimination had no significant effect on deviant behavior.

In 2003, Hay accounted for the gender gap in criminality by examining the different experiences and responses to family-related strain across gender. He found that males were more likely to receive harsher punishment for misbehavior which exacerbated the strain leading to more behavioral problems. Females were more likely to experience higher levels of guilt in response to strain compared to males who were more likely to experience anger. Research has shown that guilt was negatively related to delinquency compared to anger that was positively related to delinquency.

Hoffman and Su (1997) used the High Risk Youth Study to examine the impact of stressful life events on delinquency and drug use among males and females. The authors found modest differences in response to stressful life events. In fact, they found that the

impact on delinquency and drug use were similar across gender in the short term. They did find, however, that stressful life events were indeed associated with higher rates of delinquency and drug use.

Piquero and Sealock (2004) used a sample of juvenile offenders to examine gender differences between strain, negative emotions, coping skills, and interpersonal violence and property offenses. The authors found no significant difference in the amount of strain experienced by males and females. Females, however, reported higher levels of anger and depression than males. They also found a positive association between anger and strain for both males and females, and a positive association between depression and strain for males only. Piquero and Sealock (2004) found a positive effect of strain on delinquency which is consistent with GST. They also found a direct effect of anger, but not depression, in predicting property offending for males. These results implied that different emotions could be related to different acts and property offending was not a means of dealing with negative emotions. However, the authors found support for the relationship of anger to interpersonal aggression across gender.

Piquero and Sealock (2004) also examined the effects of strain on deviant behavior while controlling for negative emotions. Their study concluded that strain had no effect on deviant behavior, especially among males. However, it is important to note that this particular sample may have experienced an extended period of strain creating a long term effect on deviant behaviors regardless of the negative emotions. The authors found that anger was positively associated with interpersonal aggression among females.

Piquero and Sealock (2004) also went on to determine the effectiveness of coping skills in reducing deviant behavior caused by strain. The authors found that males

utilized social coping resources, which often provided criminal opportunities or encouraged criminal activity, to relieve strain. They also found a positive relationship between delinquent peers and criminal activity among males, but no relationship was found among females.

Overall, the examination of GST as a general theory has been rather successful. The results of several studies using GST to explain both male and female criminality have been positive. GST has been shown to explain criminality across gender, why males were more likely to have a higher rate of crime than females, as well as explain different types of strain experienced by males versus females and the coping skills utilized by both. GST has not only contributed to gender related explanations of crime, but also to explanation of variations in offending among juveniles, college students, offenders, and minorities.

## CHAPTER 4 METHODOLOGY

The data used in the current study were collected for prior research that focused on drug use among at-risk students and dropouts (see Chavez, Edwards, & Oetting, 1989; Chavez, Oetting, & Swaim, 1994; Perez, 2001). Between 1988 and 1992, new cohorts of adolescents were given an identical questionnaire that included questions regarding various social, psychological, and environmental factors that may have influenced their academic status. These data were collected from a fairly small community, a medium-sized city, and a large city in the Southwest. The data used in this analysis were collected during the first four years of the study and therefore constitute a sub-sample of the original data (approximately 68% of the original sample). This analysis focused only on Hispanic adolescents between the ages of 13-19 with the final sample including 1,729 adolescents.

Dropout subjects were conceptualized as subjects that had stopped attending school and had not made contact with the school in at least one month. The sample was compared to a group of academically at-risk students matched by ethnicity, sex, grade in school, age and grade point average. Once consent was obtained, each participant was given an identical questionnaire by a researcher who was available to clarify any ambiguous questions. Confidentiality was maintained by assigning identification numbers to the questionnaires. Once questionnaires were completed subjects placed them in a sealed envelope and then along with the researcher, mailed the survey to the research laboratory.

Research has repeatedly found that childhood abuse has serious long-term consequences. Broidy and Agnew (1997) suggested that response to strain may be different among males and females and males were more likely to respond to strain with crime. To examine the relationship between childhood abuse and delinquency, the following research questions were examined: a) Does physical and sexual abuse increase the risk of delinquency, particularly violence perpetration? b) Are there gender differences in response to strain? And c) Does negative affect, particularly anger and depression, mediate the relationship between strain and violence perpetration?

## **Measures**

### **Independent Variables**

The purpose of this thesis was to determine if gender interacts with negative emotions, such as anger and depression, to promote violence perpetration among Hispanic adolescents using Agnew's general strain theory. The questionnaire administered to the students included numerous measures regarding various strains on adolescents, but for the purpose of this paper two types of strain were relevant to the questions at hand, familial physical abuse and sexual assault. The prevalence of familial physical abuse (FAMABUS) was based on the following question: "How many times have you been beaten by your parents?" Responses were none (coded as '1'), 1-2 times (coded as '2'), 3-9 times (coded as '3'), and 10 or more times (coded as '4'). Familial physical abuse measures the prevalence of physical abuse by parents and was recoded as a dichotomous variable, coded as '0' for never experiencing familial physical abuse and '1' for familial physical abused experienced one or more times. The prevalence of sexual assault (SEXASSLT) was measured by asking respondents "How many times have you been raped or sexually assaulted?" Responses were never (coded as '1'), 1-2 times

(coded as '2'), 3-9 times (coded as '3'), and 10 or more times (coded as '4'). Sexual assault was recoded and measured as a dichotomous variable denoting if the adolescent never experienced sexual abuse (coded as '0') and experienced sexual abuse one or more times (coded as '1').

Other variables known to increase the risk for delinquency were also included in the current analysis: academic status, grade point average, class status, age, gender, family care, and economic dissatisfaction. The original study evaluated the differences among school dropouts and non-dropouts. Therefore, dropout status was included as an independent variable in this study because previous research has found significant differences in offending between adolescents who drop out of school and adolescents who remain in school (Chavez et al., 1994; Perez, 2001). Academic status (ACADSTAT) was coded as '0' for currently enrolled and '1' for dropout. Hawkins, Catalano, and Miller (1992) found that school performance influenced antisocial behavior. Therefore, the students' grade point average (GPA) was included as a continuous independent variable. In addition, low socio-economic status has been found to be negatively related to delinquency and other antisocial behavior (Peeples & Loeber, 1994; Wilson, 1985). As a result, class status (CLASS) was also used as an independent variable coded as '1' if the participant reported receiving food stamps or welfare and '0' if not. Therefore, higher values of CLASS denote lower class status. Age (AGE) was another demographic characteristic used as an independent variable. Age was a continuous variable coded from 13-19 for the respondents age. Gender (SEX) was another demographic characteristic used as an independent variable, coded '1' if the adolescent was male and '0' if the adolescent was female.

Other variables known to increase the risk of juvenile delinquency were also included as independent variables. Family care (FAMCARE) was a four point scale that denoted the respondent's sense of familial care. The two item scale included the following questions: "Does your family care about you?" and "Does your family care what you do?" Response options for FAMCARE include a lot (coded as '1'), some (coded as '2'), not much (coded as '3'), and no (coded as '4'). Responses to each question were summed and divided by the total number of questions (two). Scale scores range from 1 to 4, with high values denoting a high level of dissatisfaction with the caring nature of their family. Economic dissatisfaction (ECONDIS) was a three item scale that indicated the adolescents' dissatisfaction with his or her parental financial status. The scale was comprised of the following three questions. "Do your parents have good jobs?" Response options included very good (coded as '1'), good (coded as '2'), not too good (coded as '3'), and poor/no job (coded as '4'). "What is your parents' income?" Response options include high/very high (coded as '1'), average (coded as '2'), low (coded as '3'), and very low (coded as '4'). "Does your family have enough money to buy the things you want?" Response options included yes, all the time (coded as '1'), yes, most of the time (coded as '2'), some of the time (coded as '3'), and almost never (coded as '4'). Responses to each question were summed and divided by the total number of questions (three). Scale scores range from 1 to 4, with high values denoting a high level of dissatisfaction with the family's economic situation.

### **Mediating Variables**

Agnew (1992) asserts that strain induced negative emotions, particularly anger and depression, can be directly associated with crime and delinquency. According to Broidy (2001) as well as Piquero and Sealock (2000), anger was the primary negative emotion

that had a significant influence on deviance. In order to examine the mediating effect of anger on violence and delinquency, anger (ANGER) is measured using a six item scale indicating how often the adolescent reported an angry or hostile mood. The scale included the following statements: “I feel like hitting someone; I get mad; I get angry; I fly off the handle; I am hot headed; I am quick tempered.” Response options included a lot (coded as ‘1’), some (coded as ‘2’), not much (coded as ‘3’), and no (coded as ‘4’). Items were reverse coded and the scale was calculated by summing the responses and dividing the total by the number of scale items (six). High scale values denote high levels of anger.

Research has also shown that depression may be a mediating factor between strain and internalized deviance (Chandy et al., 1996; Fering et al., 1999; Meyerson et al., 2002). Depression (DEPRESS) is measured using a seven item scale that indicates how often the adolescent feels depressed or sad. The scale included the following statements: “I feel low; I am lonely; I feel sad; I am unhappy; I feel bad; I am depressed; I am lonesome.” Response options included a lot (coded as ‘1’), some (coded as ‘2’), not much (coded as ‘3’), and no (coded as ‘4’). Items were reverse coded and the scale was computed by summing the responses and dividing the total by the number of scale items (seven). High scale values denote high levels of depression.

### **Dependent Variable**

Each participant was given a self-report inventory that inquired about violence perpetration. Specifically, adolescents were asked how many times he or she had committed a series of seven behaviors. The seven item index (VIOLENT) included the following questions: “How often have you..... “scared someone with a knife; scared someone with a gun; scared someone with a club or chain; cut someone with a knife; shot

someone with a gun; hit someone with a club or chain; and been in a gang fight?” Due to the low variation in responses, items were recoded as a dichotomous measure indicating no incidents of violent offending (coded as ‘0’) or at least one or more reported violent offenses (coded as ‘1’).

### **Analysis**

Bivariate correlations were conducted in order to test for multicollinearity among conceptually related independent variables. Bivariate correlations were examined for the full sample as well as the male and female sample separately.

Logistic regression models were estimated to answer the research questions asked in this thesis. Logistical regression is the appropriate analysis procedure because the dependent variable, violence perpetration, is measured as a dichotomous variable. Models were first estimated with the full sample to determine whether gender had a significant impact on violence perpetration. The results indicated that gender was in fact significant. Therefore, the sample was split by gender and logistic regression models were estimated for males and females separately. The results of the analysis for bivariate correlations and logistic regression are discussed further in the following results chapter.

The first full sample model was a partial test of general strain theory that included physical abuse and sexual abuse as well as all independent variables. It was necessary to first estimate the model with the full sample to determine if gender was significantly associated with violence perpetration. Model 2 introduced anger to determine if anger was significantly associated with violence perpetration and to test the mediating effects of anger on the relationship between physical or sexual abuse and violence perpetration. If anger was in fact a mediating factor, it was expected that the impact of strain on violence perpetration would diminish when the mediating variable (anger) was included in model.

The third full sample model introduced depression to the model (without anger) to test the relationship between depression and violent behavior as well as the mediating effects of depression on the impact of physical or sexual abuse and violence perpetration. Similar to the second model, it was expected that depression would weaken the impact of strain on violent behavior when it was included in the model if it was mediating the relationship.

Similar to the full sample models, the first female model was a partial test of general strain theory that included physical abuse and sexual abuse as well as all independent variables (without gender since this was an all female sample). The second female model included anger, which tested whether the impact of physical abuse or sexual abuse on violence perpetration was mediated by anger. If anger was a mediating factor, it was expected that the impact of strain on violence would diminish when the mediating variable (depression) was included in the model. The third female model examined the mediating effect of depression on physical abuse and violence. It was also expected that depression would cause the impact of strain on violence to diminish when the mediating variable (depression) was in the model. The male models were identical to the female models to determine whether any differences were present across gender.

## CHAPTER 5 RESULTS

### **Sample Description**

The sub-sample of data from the Mexican-American and White American dropout study consisted of a total of 1,729 Hispanic adolescents. Table 1 provides descriptive statistics for the sample. The sample consists of slightly more males (58.4%) than females (41.6%). The average age of respondents was 16.48. Approximately 10% (9.9%) of the participants reported experiencing sexual assault at least once and 18.9% reported experiencing at least one incident of familial physical abuse. The dropout rate of this particular sample was 36.4% in comparison to the national average of 15% for this age group (Johnston, O'Malley, & Bachman, 1998). The mean grade point average was 1.57, (SD = 1.02), which may be due to the overrepresentation of school dropouts in this particular sample. Based on participants' responses to the receipt of welfare and food stamps, 17.4% were considered to be lower class status. Approximately 40% (39.8%) of the adolescents reported perpetrating at least one type of violent behavior.

Once the full sample was broken down by gender, there were several similarities between males and females (Table 2). Males and females reported similar rates of physical abuse. Approximately 18.3% of males experienced physical abuse during childhood at least once and 19.9% of females experienced physical abuse during childhood at least once. Females reported slightly more sexual abuse. Twenty-percent of females experienced sexual abuse during childhood at least once compared to 16% of males. Both males and females reported perceptions of economic dissatisfaction with

familial income. The average scale score for males was 2.34 and the average scale score for females was 2.36 on a four point scale. Family care dissatisfaction was also similar across males and females. The mean score for females was 1.18 compared to 1.21 as the mean score for males. Approximately 36% of both males and females were school dropouts. However, females had a slightly higher GPA (1.70) compared to males (1.48). Slightly more females reported being lower class status (20.6%) compared to males (15.0%). The average score for anger was fairly similar across gender. The mean anger score for females was 2.43 while the mean for males was 2.37. On average, females were more depressed than males. The average scale score for females was 1.98 and the average scale score for males was 1.79. The largest difference found between males and females was for violence perpetration. Approximately half (50.8%) of male adolescents reported perpetrating at least one violent crime compared to 24.3% of female adolescents.

T-tests were conducted to examine mean differences across gender for the variables of interest. As can be seen in Table 2, five of the variables demonstrate a significant ( $p < .01$ ) mean difference between males and females (sexual abuse, GPA, class status, depression, and violence perpetration). Females reported experiencing more incidents of sexual assault compared to males. Female adolescents had higher GPAs compared to male adolescents. Evidence of class status differences emerged with the sample of females being comprised of more underclass adolescents than the sample of males. Females were significantly more likely to experience depression compared to males, which is consistent with Cyranowski et al. (2000). It is not surprising that males were more likely than females to report perpetrating violence.

### **Bivariate Correlations**

Due to a number of conceptually related independent variables, multicollinearity was a concern with these data. Multicollinearity occurs when there are high correlations among variables. Correlations greater than .60 are concerning. An examination of the absolute values of the Pearson correlations indicates that there are no strong correlations that point to a concern of multicollinearity (see Table 3, 4, and 5).

Several significant correlations, however, should be noted. Regarding the full sample (See Table 3), several significant correlations were in the expected directions. Physical abuse was significantly and positively correlated to violence perpetration. Anger, depression, and family care were positively correlated with violence perpetration. These results indicate that experiencing physical abuse was related to violence perpetration. This explanation also applied to anger, depression, and family care. Higher levels of anger and depression were significantly related to violence perpetration. Higher levels of family dissatisfaction were also significantly related to violence perpetration. GPA and violent offending were negatively, but significantly correlated, meaning that a higher GPA reduced violent offending, which was to be expected.

Physical abuse was significantly and positively correlated to anger and depression. These results indicated that experiencing childhood physical abuse was related to higher levels of anger and depression. Family care was also positively and significantly related to physical abuse and sexual abuse. These results indicate that experiencing either physical abuse or sexual abuse was significantly related to higher disappointment with family care, which was to be expected. Physical abuse was positively and significantly correlated to economic dissatisfaction. These results indicate that experiencing physical abuse was significantly related to higher negative perceptions

of economic dissatisfaction. It is also important to note that physical abuse and sexual abuse were positively and significantly correlated. These results indicate that experiencing sexual abuse was significantly related to experiencing physical abuse. GPA and age were negatively, but significantly correlated to physical abuse. These results indicate that experiencing physical abuse was related to a lower GPA. These results also indicate that physical abuse was significantly related to a younger adolescent.

Anger and depression were positively and significantly correlated. These results indicate that higher levels of anger were related to higher levels of depression. Anger and depression were positively and significantly related to perceptions of family care, which was to be expected. These results indicate that higher levels of anger and depression were significantly related to higher levels of dissatisfaction with family care. Depression was significantly and positively related to economic dissatisfaction. These results indicate that higher levels of depression were significantly related to higher levels of economic dissatisfaction. GPA and age were negatively, but significantly correlated to anger. These results indicate that higher GPA was related to lower levels of anger, which was to be expected. These results also indicate that higher levels of anger were significantly related to a younger adolescent.

Family care was significantly and positively correlated to economic dissatisfaction. These results indicate that higher levels of economic dissatisfaction were significantly related to higher levels of dissatisfaction with family care. Family care and economic dissatisfaction were negatively, but significantly correlated to GPA. These results indicate that a lower GPA was related to higher levels of family care dissatisfaction and

family economic dissatisfaction. GPA was positively and significantly related to age indicating a higher GPA was correlated to being an older adolescent.

Regarding the female sample (See Table 4), several significant correlations were in the expected directions. Most importantly, both physical abuse and sexual abuse were significantly and positively correlated to violence perpetration. Anger, depression, economic dissatisfaction, and family care were positively correlated with violence perpetration. These results indicate that experiencing childhood abuse, either physical or sexual, was related to violence perpetration. This also applied to anger and depression. Higher levels of anger and depression were significantly related to violence perpetration. Higher levels of economic dissatisfaction and disappointment with family caring were significantly related to violence perpetration. GPA and violent offending were negatively, but significantly correlated, meaning that a higher GPA reduced violent offending, which was to be expected.

Both physical abuse and sexual abuse were significantly and positively correlated to anger and depression. These results indicated that experiencing childhood abuse, either physical or sexual, was related to higher levels of anger and depression. Economic dissatisfaction and family care were also positively and significantly related to physical abuse and sexual abuse. These results indicate that experiencing either physical abuse or sexual abuse was significantly related to higher negative perceptions of economic dissatisfaction and disappointment with family care, which was to be expected. It is also important to note that physical abuse and sexual abuse were positively and significantly correlated. These results indicate that experiencing sexual abuse was significantly related to experiencing physical abuse. Physical abuse and GPA were negatively, but

significantly correlated, indicating that experiencing physical abuse was related to a lower GPA.

Anger and depression were positively and significantly correlated. These results indicate that higher levels of anger were related to higher levels of depression. Anger and depression were positively and significantly related to perceptions of economic dissatisfaction and family care, which was to be expected. These results indicate that higher levels of anger and depression were significantly related to higher levels of economic dissatisfaction and dissatisfaction with family care. GPA and anger were negatively, but significantly correlated, meaning that a higher GPA was related to lower levels of anger, which was to be expected.

Family care was significantly and positively correlated to economic dissatisfaction. These results indicate that higher levels of economic dissatisfaction were significantly related to higher levels of dissatisfaction with family care. Family care and economic dissatisfaction were negatively, but significantly correlated to GPA. These results indicate that a lower GPA was related to higher levels of family care dissatisfaction and family economic dissatisfaction. GPA was positively and significantly related to age indicating a higher GPA was correlated to being an older adolescent.

Regarding the male sample, see Table 5, several significant correlations were in the expected directions. Physical abuse was positively and significantly correlated to violence perpetration. Anger, depression, and family care were also all positively and significantly correlated to violence perpetration. These results indicate that experiencing physical abuse was related to violence perpetration. This also applies to anger, depression, and family care. Higher levels of anger, depression, and family care

dissatisfaction were significantly related to violence perpetration. Similar to the female sample, GPA and violent offending were negatively, but significantly correlated, meaning that a higher GPA was related to a decrease in violence perpetration, which was to be expected.

Physical abuse was significantly and positively correlated to anger and depression. These results indicate that experiencing physical abuse was related to higher levels of anger and depression. Economic dissatisfaction and family care were also positively and significantly related to physical abuse. These results indicate that experiencing physical abuse was significantly related to higher degrees of economic dissatisfaction and disappointment with family care, which was to be expected. It is also important to note that physical abuse and sexual abuse were positively and significantly correlated to each other. These results indicate that experiencing sexual abuse was significantly related to experiencing physical abuse. As expected, physical abuse and GPA were negatively, but significantly correlated, indicating that experiencing physical abuse was related to a lower GPA.

Depression was positively and significantly correlated to sexual abuse, economic dissatisfaction, and family care. These results indicate that experiencing sexual abuse was significantly related to higher levels of depression. This also applied to economic dissatisfaction and family care. Higher levels of depression were significantly related to higher degrees of economic dissatisfaction and family care dissatisfaction. Anger was also positively and significantly related to family care indicating higher levels of anger were significantly related to greater dissatisfaction with family care. Anger and

depression were positively and significantly correlated. These results indicate that higher levels of anger were significantly related to higher levels of depression.

Anger was negatively but significantly related to age and GPA. These results denote a significant relationship between anger and GPA, meaning that higher levels of anger were correlated with a lower GPA. This also applies to age. Higher levels of anger were correlated to being a younger adolescent. GPA was also negatively, but significantly related to family care, meaning that a lower GPA was related to higher levels of family care dissatisfaction. Family care and economic dissatisfaction were positively and significantly correlated. Higher levels of economic dissatisfaction were related to higher levels of family care dissatisfaction.

### **Logistic Regression**

#### **Full Sample Model**

In the first stage of the analysis, a full sample model was estimated to determine the relationship between a number of factors related to Agnew's GST and violence perpetration. Logistic regression was used because the nature of the dependent variable, violence perpetration, was dichotomous. Model 1 (Table 6) estimated the impact of a number of factors related to Agnew's GST on violence perpetration without negative emotions (anger and depression). Variables that were significantly related to violence perpetration include sexual abuse, familial physical abuse, gender, academic status, family care, and GPA. Adolescents who experienced sexual abuse or physical abuse were significantly more likely to perpetrate violence compared to adolescents who did not experience sexual abuse or physical abuse. Table 6 reports the relevant statistical measures, such as the parameter estimate ( $\beta$ ), the standard error (SE), and the odds ratio for the interpretation of these data. The odds ratio was used to determine the percentage

of odds for committing violent offenses based on the independent variables. The percentage of odds was calculated by subtracting one from the odds ratio, therefore determining an increase or decrease in the percentage of odds.

Sexual abuse had a significant and positive impact ( $\beta = .497$ ,  $SE = .210$ ) on violence perpetration ( $p < .05$ ) and physical abuse had a positive and significant impact ( $\beta = .732$ ,  $SE = .154$ ) on violence perpetration ( $p < .05$ ). Adolescents who reported experiencing physical or sexual abuse during childhood were more likely to perpetrate violence compared to adolescents who did not experience childhood violence. Findings indicated that sexual and physical abuse increased the odds of committing a violent offense by 64% and 107%, respectively. Gender ( $\beta = 1.314$ ,  $SE = .134$ ), academic status ( $\beta = .505$ ,  $SE = .134$ ), and family care ( $\beta = .713$ ,  $SE = .143$ ) were also significantly and positively related to violence perpetration ( $p < .01$ ). Being male increased the odds of committing a violent offense by 272% and being a dropout increased the odds of violence perpetration by 66%. In addition, being more dissatisfied with the caring nature of one's family increased the odds violence perpetration by 104%. In contrast, GPA had a negative significant impact ( $\beta = -.348$ ,  $SE = .066$ ) on violence perpetration ( $p < .01$ ). This finding indicated that having a higher GPA significantly reduces the likelihood of violence perpetration. Specifically, higher GPA decreases the odds of violent crime perpetration by 29%.

In Model 2, negative emotion, anger, was included in the model to examine the relationship between anger and violent crime while holding the influences of the other variables constant. The following variables had a significant influence on violence perpetration: familial physical abuse, gender, academic status, family care, GPA, and

anger. Familial physical abuse had a significant and positive impact ( $\beta = .626$ ,  $SE = .160$ ) on violence perpetration ( $p < .01$ ). Adolescents who reported experiences with family physical abuse during childhood were significantly more likely to perpetrate violence compared to adolescents who did not experience physical abuse during childhood. Specifically, family abuse increased the odds of violence perpetration by 87%. Gender ( $\beta = 1.438$ ,  $SE = .140$ ), academic status ( $\beta = .444$ ,  $SE = .138$ ), and family care ( $\beta = .610$ ,  $SE = .146$ ) also had a significant positive impact on violence perpetration ( $p < .01$ ). Males were significantly more likely to perpetrate violence compared to females. Specifically, the results indicated that being male increased the odds of committing a violent offense by 321%. Respondents who had dropped out of school were more likely to perpetrate a violent offense compared to adolescents who were attending school. Specifically, academic status (i.e., being a dropout) increased the odds of committing violent crime by approximately 56%. Adolescents who had a higher dissatisfaction with family care were significantly more likely to perpetrate violence. Specifically, higher levels of dissatisfaction with the caring nature of one's family increased the odds of violent crime perpetration by 84%. Again, GPA had a negative significant impact ( $\beta = -.309$ ,  $SE = .069$ ) on violence perpetration ( $p < .01$ ), which means that adolescents with higher GPAs were significantly less likely to commit violent crime. Specifically, an increase in GPA decreased the odds of violent crime perpetration by 27%. Finally, anger had a positive and significant impact on violence perpetration ( $\beta = .738$ ,  $SE = .094$ ). Respondents who reported higher levels of anger were significantly more likely to perpetrate violence. Specifically, being angrier increased the odds of violence perpetration by 109%.

In Model 3 (Table 6) depression was included to examine the relationship between negative emotion and violence perpetration. Variables that were significantly related to violence perpetration included sexual abuse, familial physical abuse, gender, academic status, family care, and GPA. Sexual abuse ( $\beta = .470$ ,  $SE = .211$ ) had a significant and positive impact on violence perpetration ( $p < .05$ ) and physical abuse ( $\beta = .693$ ,  $SE = .155$ ) had a significant and positive impact on violence perpetration ( $p < .01$ ). Adolescents who reported experiences with sexual abuse or physical abuse during childhood were significantly more likely to perpetrate violence compared to adolescents who did not experience childhood violence. Specifically, experiencing sexual abuse and physical abuse during childhood increased the odds of violence perpetration by 60% and 100%, respectively. Depression was also found to have a significant and positive impact ( $\beta = .205$ ,  $SE = .081$ ) on violence perpetration ( $p < .05$ ). Adolescents who reported higher levels of depression were significantly more likely to perpetrate violence compared to adolescents who reported lower levels of depression. Specifically, increases in adolescent depression increased the odds of violence perpetration by 23%. Finally, gender ( $\beta = 1.345$ ,  $SE = .136$ ), academic status ( $\beta = .513$ ,  $SE = .134$ ), and family care ( $\beta = .655$ ,  $SE = .145$ ) had a significant positive impact on violence perpetration ( $p < .01$ ). Results also indicated that being male increased the odds of perpetration of violent crime by 284% and being a dropout increased the odds of committing violent crime by approximately 67%. Adolescents who had a higher dissatisfaction with family care were significantly more likely to perpetrate a violent offense. Specifically, higher levels of dissatisfaction with the caring nature of one's family increased the odds of violent crime perpetration by 92%. Similar to the other models, GPA ( $\beta = .347$ ,  $SE = .067$ ) had a

significant negative impact on violence perpetration ( $p < .05$ ). Specifically, an increase in GPA decreased the odds of violent crime perpetration by 30%.

The mediating effects of anger and depression on the relationship between strain (physical and sexual abuse) and violence perpetration were examined (Models 2 and 3 Table 6). When anger was included in the full sample model, the effects of sexual abuse on violence perpetration diminished. This indicates that anger mediates the relationship between sexual abuse and violence. However, after further examination, the odds ratio did not diminish considerably indicating the magnitude of the relationship was not extensive. When depression was included in the model as a mediating variable the impact of sexual abuse and physical abuse on violence perpetration did not diminish significantly. However, there was evidence that depression partially mediates the relationships between physical abuse and sexual abuse and violence perpetration. The odds ratios diminished slightly indicating a minor mediating effect, but the mediating effect did not produce a significant change.

### **Female Models**

The results from the full sample models indicated that gender had a significant impact on violence perpetration. Therefore, the full sample was split by gender to examine whether there were differences in factors that impact violence perpetration across gender. Table 7, Model 4 indicates that sexual abuse, family abuse, academic status, family care, and GPA were significantly related to violence perpetration. The results indicate that female adolescents who experience sexual abuse ( $\beta = .520$ ,  $SE = .244$ ) or familial physical abuse ( $\beta = .619$ ,  $SE = .251$ ) during childhood are more likely to commit violent crimes compared to adolescent females who did not experience childhood abuse ( $p < .05$ ). Specifically, the findings indicate that being sexually abused increased

the odds of violence perpetration by 68% and being physically abused increased the odds of violence perpetration by 86% among females. Academic status ( $\beta = .633$ ,  $SE = .227$ ) and family care ( $\beta = .904$ ,  $SE = .232$ ) were also found to have a significant impact on violence perpetration ( $p < .01$ ). These findings indicate that being a dropout increased the odds of violence perpetration by 88% and higher levels of dissatisfaction with the caring nature of one's family increased the odds of violent crime perpetration by 147% among females. In contrast, GPA had a negative significant impact ( $\beta = -.401$ ,  $SE = .118$ ) on violence perpetration ( $p < .01$ ). This finding indicates that having a higher GPA significantly reduces the likelihood of violence perpetration. Specifically, higher GPA decreases the odds of violence perpetration by 33% among females.

To determine the effects of negative emotions on females, anger and depression were added to the models separately. In Table 7, Model 5 anger was added to the model to examine the relationship between anger and violence perpetration among females. The results indicate that familial physical abuse, academic status, family care, GPA, and anger were significantly related to violence perpetration. Family abuse ( $\beta = .575$ ,  $SE = .259$ ) and academic status ( $\beta = .542$ ,  $SE = .233$ ) had a significant impact on violence perpetration at the  $p < .05$  significance level while family care ( $B = .758$ ,  $SE = .238$ ) and anger ( $\beta = .722$ ,  $SE = .137$ ) had a significant impact on violence perpetration at the  $p < .01$  significance level. GPA had a negative and significant impact on violence perpetration among females ( $\beta = -.407$ ,  $SE = .122$ ).

Findings indicated that female adolescents who reported experiences with physical abuse during childhood were significantly more likely to perpetrate violence compared to female adolescents who did not experience childhood physical abuse. Childhood

physical abuse increased the odds of violence perpetration by 78%. Female adolescents who dropped out of school were more likely to perpetrate a violent offense compared to female adolescents who were attending school. Specifically, academic status (i.e., being a dropout) increased the odds of committing violent crime by approximately 72%.

Female adolescents who had a higher dissatisfaction with family care were significantly more likely to perpetrate violence. Specifically, higher levels of dissatisfaction with the caring nature of one's family increased the odds of violent crime perpetration by 113%.

Findings indicated that having a higher GPA significantly reduces the likelihood of violence perpetration among females. Specifically, having a higher GPA decreases the odds of violent crime perpetration by 33%. Finally, female adolescents who reported higher levels of anger were significantly more likely to perpetrate violence. Specifically, being angrier increased the odds of violence perpetration by 105% among females.

Depression was included in Table 7, Model 6 to examine the relationship between depression and violence perpetration among females. Variables that were found to have a significant impact on violence perpetration included: sexual abuse, familial physical abuse, academic status, family care, and GPA. Sexual abuse ( $\beta = .493$ ,  $SE = .246$ ) and familial physical abuse ( $\beta = .732$ ,  $SE = .154$ ) had a significant and positive impact on violence perpetration among females ( $p < .05$ ). Adolescent females who reported experiencing physical or sexual abuse during childhood were more likely to perpetrate violence compared to adolescent females who did not experience childhood violence. Findings indicated that sexual and physical abuse increased the odds of committing a violent offense by 64% and 81%, respectively, among females.

Academic status ( $\beta = .620$ ,  $SE = .228$ ) and family care ( $\beta = .779$ ,  $SE = .242$ ) had a significant positive relationship on violence perpetration ( $p < .01$ ) among females. Female adolescents who dropped out of school were significantly more likely to perpetrate violence compared to female adolescents who were attending school. Specifically, academic status (i.e., being a dropout) increased the odds of committing violent crime by approximately 86%. Adolescent females who had a higher dissatisfaction with family care were significantly more likely to perpetrate a violent offense. Specifically, higher levels of dissatisfaction with the caring nature of one's family increased the odds of violent crime perpetration by 118%. Again, GPA had a negative significant impact ( $\beta = -.422$ ,  $SE = .119$ ) on violent crime perpetration ( $p < .01$ ), which means that adolescent females with higher GPAs were significantly less likely to commit violent crime. Specifically, an increase in GPA decreased the odds of violent crime perpetration by 34%.

The mediating effects of anger and depression on the relationship between strain (physical and sexual abuse) and violence for females were examined. When anger was introduced into the female model, the effects of sexual abuse on violence perpetration diminished. Similar to the full sample, this indicates that anger mediates the relationship between sexual abuse and violence perpetration among females. However, after further examination, the odds ratio did not diminish considerably indicating the magnitude of the relationship was not extensive. When depression was included in the model as a mediating variable the impact of sexual abuse and physical abuse on violence perpetration did not diminish significantly. However, there was evidence that depression partially mediates the relationships between physical abuse and sexual abuse and

violence perpetration. The odds ratios diminished slightly indicating a minor mediating effect, but the mediating effect did not produce a significant change.

### **Male Models**

The results from the full sample models indicated that gender had a significant impact on violence perpetration. Therefore, the full sample was split by gender to examine whether there were gender differences in factors that impact violence perpetration. Table 8 presents the results of the estimated models for the male sample. In Table 8, Model 7, variables that were found to have a significant impact on violence perpetration among males included family abuse, academic status, family care, class status, and GPA. Familial physical abuse ( $\beta = .815$ ,  $SE = .199$ ), academic status ( $\beta = .468$ ,  $SE = .166$ ), family care ( $\beta = .573$ ,  $SE = .179$ ), and class status ( $\beta = .626$ ,  $SE = .220$ ) had a positive and significant impact on violence perpetration ( $p < .05$ ) whereas GPA ( $\beta = -.320$ ,  $SE = .081$ ) had a negative and significant impact on violence perpetration ( $p < .01$ ).

The results indicated that male adolescents who experience familial physical abuse during childhood are more likely to commit violent crimes compared to adolescent males who do not experience childhood physical abuse. Specifically, the findings indicated that being physically abused during childhood increases the odds of violence perpetration by 126% among males. Male adolescents who had dropped out of school were more likely to perpetrate violence compared to male adolescents who were attending school. Specifically, academic status (i.e., being a dropout) increased the odds of committing violent crime by approximately 60%. Male adolescents who had a higher dissatisfaction with family care were significantly more likely to perpetrate a violent offense. Specifically, higher levels of dissatisfaction with the caring nature of one's family

increased the odds of violent crime perpetration by 77%. Interestingly, class status was significantly related to violent crime perpetration among males. Being a lower class male increased the odds of violence perpetration by perpetrating violent crime by 87%. Again, GPA had a negative significant impact on violent crime perpetration, which means that male adolescents with higher GPAs were significantly less likely to commit violent crime. Specifically, an increase in GPA decreased the odds of violent crime perpetration by 27% among males.

Anger was included in Table 8, Model 8, to examine the relationship between anger and violence perpetration among males. Variables that were found to have a significant impact on violence perpetration include: familial physical abuse, academic status, family care, class status, GPA, and anger. Familial physical abuse ( $\beta = .664$ ,  $SE = .206$ ) had a significant and positive impact on violence perpetration among males ( $p < .01$ ).

Adolescent males who reported experiencing physical abuse during childhood were more likely to perpetrate violence compared to adolescent males who did not experience childhood violence. Findings indicated that physical abuse increased the odds of committing a violent offense by 94% among males. Academic status ( $\beta = .424$ ,  $SE = .172$ ), family care ( $\beta = .500$ ,  $SE = .183$ ), class status ( $\beta = .657$ ,  $SE = .226$ ), and anger ( $\beta = .752$ ,  $SE = .107$ ) were positively significantly correlated to violent crime perpetration ( $p < .05$ ). GPA ( $\beta = -.257$ ,  $SE = .084$ ) was negatively and significantly associated with violence perpetration ( $p < .01$ ) among male adolescents. Male adolescents who had dropped out of school were more likely to perpetrate violence compared to male adolescents who were attending school. Specifically, academic status (i.e., being a dropout) increased the odds of committing violent crime by approximately 53%. Male

adolescents who reported higher levels of anger were significantly more likely to perpetrate violence. Specifically, being angrier increased the odds of violence perpetration by 112% among males. Male adolescents who had a higher dissatisfaction with family care were significantly more likely to perpetrate a violent offense. Specifically, higher levels of dissatisfaction with the caring nature of one's family increased the odds of violence perpetration by 65%. Interestingly, class status was significantly related to violence perpetration among male adolescents. Being a lower class male increased the odds of violence perpetration by perpetrating violent crime by 93%. Again, GPA had a negative significant impact on violent crime perpetration, which means that male adolescents with higher GPAs were significantly less likely to commit violent crime. Specifically, an increase in GPA decreased the odds of violent crime perpetration by 23% among males.

Depression was included in Table 8, Model 9, to examine the relationship between depression and violence perpetration among males. Variables that were found to have a significant impact on violence perpetration included: familial physical abuse, academic status, family care, class status, and GPA. Familial physical abuse ( $\beta = .778$ ,  $SE = .201$ ) had a significant and positive impact on violence perpetration among males ( $p < .01$ ). Adolescent males who reported experiencing physical abuse during childhood were more likely to perpetrate violence compared to adolescent males who did not experience childhood violence. Findings indicated that physical abuse increased the odds of committing a violent offense by 118% among males.

Academic status ( $\beta = .485$ ,  $SE = .167$ ), family care ( $\beta = .551$ ,  $SE = .180$ ), and class status ( $\beta = .621$ ,  $SE = .220$ ) had a significant positive relationship on violence perpetration

( $p < .01$ ) among males. Male adolescents who had dropped out of school were significantly more likely to perpetrate violence compared to male adolescents who were attending school. Specifically, academic status (i.e., being a dropout) increased the odds of committing violent crime by approximately 63%. Adolescent males who were dissatisfied with the caring nature of their family were significantly more likely to perpetrate violence. Specifically, higher levels of dissatisfaction with the caring nature of one's family increased the odds of violent crime perpetration by 73%. Again, class status was significantly related to violent crime perpetration among male adolescents. Being a lower class male increased the odds of violence perpetration by 86%. GPA had a negative significant impact on violent crime perpetration, which means that male adolescents with higher GPAs were significantly less likely to commit violent crime. Specifically, an increase in GPA decreased the odds of violent crime perpetration by 27% among males. Depression was not found to have a significant impact of violence perpetration among males.

This study examined the mediating effects of anger and depression on the relationship between strain (physical and sexual abuse) and violence perpetration among Hispanic adolescents. When anger and depression were added to the male models, the effects of childhood physical abuse on violence perpetration did not diminish. Sexual abuse was not significantly related to violence perpetration with or without anger and depression in the model. Although there were no significant effects once anger and depression were added to the model, there was evidence of a partial mediating effect based on minor changes of the odds ratio. These results and the relevance of prior

literature will be discussed in the following chapter. Policy implications as well as future research will also be discussed.

## CHAPTER 6 DISCUSSION AND CONCLUSIONS

This study examined the relationship between childhood physical and sexual abuse and violent offending among Hispanic adolescents. Gender differences in response to childhood abuse were also examined as well as the influence of negative emotions, anger and depression, across gender. This study conducted a partial test of Agnew's GST by looking at the mediating factor of these negative emotions in response to childhood physical and sexual abuse. However, coping mechanisms were not explored in this particular study, which would be necessary to fully evaluate all tenets of GST. It was expected that childhood abuse would increase the risk of violence perpetration, especially for males. Anger was expected to have a greater impact on males compared to females. It was also expected that negative emotions, anger and depression, would intervene between strain (childhood violence) and violence perpetration.

Childhood physical abuse was significantly related to self-reported violence perpetration for the whole sample as well as males and females separately, which provides evidence of a strong relationship between physical abuse and violence perpetration. Consistent with previous research, physically abused adolescents reported higher rates of violent offending compared to non-abused adolescents (Herrera & McCloskey, 2001; Ireland, Smith, & Thornberry, 2002; Malinosky-Rummell & Hansen, 1993; Smith & Thornberry, 1995; Widom, 1989a). However, the results did not indicate any gender differences between abused males and females in relation to violent offending. These results were fairly consistent with research by Herrera & McCloskey

(2001) that reported no gender differences in overall referral rates to the juvenile justice system although males, in general, were more likely to be referred for property, felony, and violent offenses. They also went on to report that abused females were seven times more likely to commit a violent offense compared to non-abused females which was consistent with the findings in the current research. Therefore, childhood physical abuse was shown to increase the risk of violent offending across gender.

Childhood sexual abuse was significantly associated with violence perpetration in the full sample and in the female model. Based on these findings, it could be argued that non-sexually abused Hispanic adolescents are less likely to demonstrate violent behavior compared to sexually-abused adolescents, which is consistent with previous studies (Malinosky-Rummell & Hansen, 1993; Smith & Thornberry, 1995; Widom, 1989a). It also could be argued that sexually abused females are more likely than sexually abused males to report violent behavior. However, this result may be due to the low frequency of males reporting sexual abuse.

Surprisingly, males and females did not differ in their response to anger and depression. It was discovered that anger was significantly related to violent behavior for males and females, meaning that the angrier the adolescent reported feeling, the more violent behavior was reported. Consistent with previous research, anger had a direct effect on offending (Broidy, 2001; Piquero & Sealock, 2004). Depression, on the other hand, was only significantly related to violence at the significance level  $p < .05$  in the full sample. When the sample was broken down by gender, depression was not significantly related to violence perpetration for males or females. Similarly, Mazzerolle and Piquero (1998) as well as Piquero and Sealock (2004) found that depression was not related to

subsequent offending. Therefore, anger appeared to be the principle negative emotion associated with violence perpetration, which is consistent with previous research by Broidy (2001) and Piquero & Sealock (2000).

Agnew's general strain theory (1992) postulates that exposure to noxious stimuli, such as childhood physical and sexual abuse will increase the likelihood of negative emotions, anger and depression. He suggests that if these negative emotions are not managed by utilizing effective coping strategies, it is likely that the individual will use delinquent behavior to minimize these feelings. He suggests that these negative emotions mediate the relationship between strain and delinquency.

The current study examined the mediating effects of anger and depression on violence perpetration among abused male and female Hispanic adolescents. The results were somewhat mixed in terms of the mediating effect of negative emotions between abuse and violent behavior. The results indicated that anger mediated the relationship between sexual abuse and violent behavior in the full sample as well as the female sample. Consistent with GST, anger was a mediating factor in the relationship between sexual abuse and violence perpetration in females indicating an indirect relationship between abuse and violent behavior in sexually abused females. However, after further examination, the odds ratio did not diminish considerably indicating the magnitude of the relationship was not extensive. The effect of childhood physical abuse on violent behavior was not diminished significantly when anger was introduced into the model. However, there was evidence that anger partially mediates the relationships between physical abuse and sexual abuse and violence perpetration. The odds ratios diminished slightly indicating a minor mediating effect, but the mediating effect did not produce a

significant change. Similarly, Mazzerolle and Piquero (1998) also found limited support for the GST in regard to anger mediating the relationship between strain and delinquency.

Further, GST was not fully supported in depression mediating the relationship between physical abuse or sexual abuse and violence perpetration. Neither the effects of physical abuse nor sexual abuse were diminished significantly when depression was introduced in the models. These results suggest that childhood physical abuse and depression are independently related to violence perpetration. Similar to anger, the odds ratios diminished slightly indicating a minor mediating effect, but the mediating effect did not produce a significant change.

Other factors that were significantly related to violent behavior were academic status and family care. As expected, adolescents that had dropped out of school reported more incidents of violence perpetration. Also, adolescents who reported a higher degree of dissatisfaction with family care also self-reported more violent behavior. Prior research has also acknowledged the relationship between violent behavior and family environment (Aseltine et al., 2000; Meyerson et al., 2002). These results could possibly be explained by those adolescents having less to risk and more opportunities for crime. If they do not have a feeling of concern from their family, they have less to lose because their perception of family concern is minimal. Also, the adolescent would have more opportunities possibly because he or she is no longer spending time under the supervision of the school. As suspected, GPA was negatively associated with violence indicating the lower the GPA, the more violence reported.

Agnew's GST has been tested over various populations and has received considerable support. This study showed mixed support for GST, however. The results

were supportive of GST in the association between strain, in this case the presentation of noxious stimuli, and an increase in the risk of violent offending. GST was also supported as a general theory that was used to predict violent offending across gender and a minority population. The results indicated a similar response to childhood physical abuse across gender. Also, anger was found to be positively associated with violent behavior across gender, but depression was not. However, anger partially mediated the relationship between childhood physical abuse and subsequent violent offending. The mediating effects of anger were supported in the relationship between sexual abuse and violent offending among females. However, the results indicate that the magnitude of the relationship was not extensive. Depression also partially mediated the relationship between physical or sexual abuse and subsequent offending.

### **Limitations**

There were a few limitations to the current research that should be considered. First, these data were derived from a cross-sectional research design. Therefore, it was impossible to determine the sequential order of the abuse and violence. Although the exact order of abuse versus violence was not known, it was known that at the very least, they were occurring concurrently. In addition, these data were a subset of the original data, classifying only Hispanic adolescents. Therefore this study on the relationship of abuse and violence perpetration and the mediating factors of anger and depression were only generalizable to Hispanic adolescents.

Another issue of concern was a one-item measure that measured adolescent sexual abuse. This measure is questionable since only one item was used. Related to the validity of this measure was also the problem with recall bias. Because the adolescent was requested to recall incidents of abuse, the actual prevalence of abuse could be

underestimated. Similarly, only one response to abuse was examined, violence perpetration. Future research should also examine other behavioral outcomes, including property offending and drug abuse.

Another related limitation is that the original study was not designed to test the specific research questions from the current research. A more detailed study on abuse with items of duration, frequency, and severity of abuse would allow for the examination of the relationship between childhood abuse and subsequent violence.

Finally, Agnew's theory suggests three types of coping mechanisms could be utilized in order to manage the effects of strain. This study was not able to consider possible coping mechanisms that adolescents may have used in order to manage strain experienced during childhood. Therefore, this study was only a partial test of GST. Future research should consider possible coping mechanisms that may or may not have been utilized as a response to childhood abuse.

Although the current research had a number of limitations, this study does make a number of contributions to the existing literature. First, this study looked at an often understudied population in regard to childhood abuse and the subsequent effects of the abuse on these particular adolescents. Not only did this study look at abuse among a rapidly growing minority group, but it also examined gender differences in response to abuse within this group. This study also improved the generalizability of Agnew's general strain theory by strengthening the support for the theory as a "general" theory across all ethnicities and gender.

### **Policy Implications**

The following policy implications are not based on the findings of this particular study, but rather the Hispanic population that was examined. Further research needs to

be conducted in examining youth violence across gender before making changes to policy. Considering that Hispanics are quickly becoming the “majority minority,” (Warrix & Bocanegra, 1998) it is important to consider cultural variations in treatment programs to prevent youth violence. In the Hispanic culture, male dominance, often referred to as “machismo,” is a significant factor in the Hispanic value systems. The male role is often strong and authoritarian, which is a learned and reinforced behavior in Latino society (De la Cancela, 1986). Because the culture encourages male dominance, it is important to be sensitive to their beliefs, but also empower abused adolescents in reporting abuse to authorities. Family, itself, is often an important value within the Hispanic culture. Developing interventions that focus on the whole family unit may be helpful in reducing violent behavior among Hispanic youth. Programs that combine parental management training along with problem-solving programs for youth have been successful in preventing youth violence (Kazdin, Siegal, & Bass, 1992). Other parenting programs that seek to improve the parenting skills as well as quality of family life can also help in reducing youth violence (Patterson, DeBaryshe, & Ramsey, 1989). This type of program may be very beneficial to families with reported abuse. Programs such as the Nurturing Parenting Programs have also been developed that re-teach parenting philosophy and focus on activities that promote communication, replacing abusive behavior with nurturing, and promoting emotional and physical development. These interventions can also focus on various cultures which would be beneficial to preventing youth violence in abused Hispanic adolescents. This type of program has been successful in improving attitudes in both the parents and children as well as improving family interaction (Bavolek, 1996).

Other programs designed to reduce youth violence among Hispanics should be implemented in schools, alternative schools, and juvenile justice facilities. Improvements such as problem-solving clinics or mediation clinics that provide social skill development and non-aggressive behavioral response techniques to dealing with conflict may be beneficial in reducing youth violence. Also, improving education and providing hope for the future has also been shown to reduce violence (Hawkins, Catalano, & Brewer, 1995). In a study examining education and violence from the Caribbean Health Survey, the authors found a significant increase in violence from those adolescents who had difficulty learning in school. Therefore, focusing on improving educational programs may also be helpful in reducing violent behavior among adolescents.

Future research needs to continue focusing on differences across ethnicities as well as gender in response to family abuse and violent behavior. It is necessary to understand the cultural values of each population in order to provide the best treatment programs in reducing violence. In this particular study, future research should examine the effect of legitimate as well as illegitimate coping strategies utilized to minimize the impact of the strain and fully examine all tenets of Agnew's general strain theory.

Table 1. Descriptive Statistics of Full Sample

<i>Variables</i>				
	<b>N</b>	<b>Mean</b>	<b>(SD)</b>	<b>Range</b>
<b><i>Independent Variables</i></b>				
Physical Abuse	1677	18.9%	.39	--
Sexual Abuse	1671	9.93%	0.299	--
Sex	1729	58.4%	0.48	--
Economic Dissatisfaction	1695	2.3541	0.661	1-4
Family Care	1700	1.198	0.446	1-4
Academic Status	1729	36.4%	0.481	--
GPA	1595	1.577	1.024	0.0-4.40
Class Status	1688	17.4%	.379	--
Age	1729	16.48	1.22	13-19
<b><i>Mediating Variables</i></b>				
Anger	1698	1.87	.77	1-4
Depression	1698	2.40	0.77	1-4
<b><i>Dependent Variables</i></b>				
Violence Perpetration	1681	39.8%	.489	

Table 2. Descriptive Statistics of Sample, by Gender

<i>Variables</i>	<i>FEMALES</i> ( <i>N=719</i> )			<i>MALES</i> ( <i>N=1010</i> )		
	<b>Mean</b>	<b>(SD)</b>	<b>Range</b>	<b>Mean</b>	<b>(SD)</b>	<b>Range</b>
<i>Independent Variables</i>						
Physical Abuse	19.9%	3.9	--	18.26%	3.86	--
Sexual Abuse*	20.0%	4.0	--	16%	1.61	--
Economic Dissatisfaction	2.36	0.655	1-4	2.34	0.66	1-4
Family Care	1.18	0.431	1-4	1.21	0.45	1-4
Academic Status	36.5%	4.81	--	36.0%	4.8	--
GPA*	1.70	1.03	0.0-4.4	1.48	1.0	0.0-4.4
Class Status*	20.6%	4.05	--	15.0%	3.57	--
Age	16.44	1.21	13 – 19	16.51	1.22	13 – 19
<i>Mediating Variables</i>						
Anger	2.43	0.79	1-4	2.37	.757	1-4
Depression*	1.98	0.82	1-4	1.79	.722	1-4
<i>Dependent Variable</i>						
Violence Perpetration*	24.3%	4.29		50.8%	5.00	

\* T-tests indicate significant differences between group mean values at  $p < .01$ .

Table 3. Correlation Matrix (Full Sample)

VARIABLES	<i>Economic Dissatisfaction</i>	<i>Family Care</i>	<i>Age</i>	<i>GPA</i>	<i>Anger</i>	<i>Depression</i>	<i>Sexual Abuse</i>	<i>Physical Abuse</i>	<i>Violence Prevalence</i>
<i>Economic Dissatisfaction</i>	--								
<i>Family Care</i>	.157** p=.000	--							
<i>Age</i>	.000 p=.993	-.042 p=.086	--						
<i>GPA</i>	-.066** p=.009	-.081** p=.001	.080** p=.001	--					
<i>Anger</i>	.045 p=.068	.173** p=.000	-.060* p=.013	-.149** p=.000	--				
<i>Depression</i>	.151** p=.000	.261** p=.000	-.047 p=.052	-.029 p=.254	.477** p=.000	--			
<i>Sexual Abuse</i>	.045 p=.070	.080** p=.001	-.035 p=.156	-.004 p=.865	.105** p=.000	.166** p=.000	--		
<i>Physical Abuse</i>	.081** p=.001	.255** p=.000	-.083** p=.001	-.090** p=.000	.171** p=.000	.191** p=.000	.177** p=.000	--	
<i>Violence Prevalence</i>	.038 p=.119	.191** p=.000	.000 p=.996	-.249** p=.000	.273** p=.000	.083** p=.001	.014 p=.570	.179** p=.000	--

\*\*p&lt;.01 \*p&lt;.05

Table 4. Correlation Matrix (Female Sample)

VARIABLES	<i>Economic Dissatisfaction</i>	<i>Family Care</i>	<i>Age</i>	<i>GPA</i>	<i>Anger</i>	<i>Depression</i>	<i>Sexual Abuse</i>	<i>Physical Abuse</i>	<i>Violence Prevalence</i>
<i>Economic Dissatisfaction</i>	--								
<i>Family Care</i>	.203** p=.000	--							
<i>Age</i>	.014 p=.706	-.040 p=.288	--						
<i>GPA</i>	-.112** p=.005	-.084* p=.033	.112** p=.004	--					
<i>Anger</i>	.102** p=.007	.209** p=.000	-.045 p=.234	-.115** p=.004	--				
<i>Depression</i>	.189** p=.000	.356** p=.000	-.059 p=.114	-.018 p=.648	.524** p=.000	--			
<i>Sexual Abuse</i>	.096* p=.012	.150** p=.000	-.054 p=.151	-.061 p=.126	.154** p=.000	.188** p=.000	--		
<i>Physical Abuse</i>	.095* p=.013	.267** p=.000	-.111** p=.003	-.098* p=.014	.145** p=.000	.165** p=.000	.252** p=.000	--	
<i>Violence Prevalence</i>	.079* p=.039	.233** p=.000	-.037 p=.321	-.237** p=.000	.284** p=.000	.132** p=.000	.162** p=.000	.219** p=.000	--

\*\*p&lt;.01 \*p&lt;.05

Table 5. Correlation Matrix (Male Sample)

VARIABLES	<i>Economic Dissatisfaction</i>	<i>Family Care</i>	<i>Age</i>	<i>GPA</i>	<i>Anger</i>	<i>Depression</i>	<i>Sexual Abuse</i>	<i>Physical Abuse</i>	<i>Violence Prevalence</i>
<i>Economic Dissatisfaction</i>	--								
<i>Family Care</i>	.128** p=.000	--							
<i>Age</i>	-.009 p=.776	-.044 p=.164	--						
<i>GPA</i>	-.036 p=.271	-.074* p=.024	.061 p=.060	--					
<i>Anger</i>	.003 p=.937	.151** p=.000	-.070* p=.028	-.184** P=.000	--				
<i>Depression</i>	.122** p=.000	.201** p=.000	-.032 p=.310	-.060 P=.069	.436** p=.000	--			
<i>Sexual Abuse</i>	-.027 p=.401	.028 p=.390	.012 p=.701	.000 P=.993	.018 p=.587	.066* p=.042	--		
<i>Physical Abuse</i>	.071* p=.028	.249** p=.000	-.060 p=.060	-.086** P=.009	.191** p=.000	.211** p=.000	.087** p=.006	--	
<i>Violence Prevalence</i>	.018 p=.575	.163** p=.000	.009 p=.771	-.228** P=.000	.301** p=.000	.111** p=.001	.036 p=.259	.176** p=.000	--

\*\*p&lt;.01 \*p&lt;.05

Table 6. Logistic Regression-Violence Perpetration (Full sample)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>S.E.</i>	<i>Odds ratio</i>	<i>B</i>	<i>S.E.</i>	<i>Odds ratio</i>	<i>B</i>	<i>S.E.</i>	<i>Odds ratio</i>
Sexual Abuse	.497*	.210	1.644	.403	.215	1.496	.470*	.211	1.600
Family Abuse	.732**	.154	2.079	.626**	.160	1.871	.693**	.155	2.00
Academic Status	.505**	.134	1.657	.444**	.138	1.558	.513**	.134	1.671
Economic Dissatisfaction	-.098	.094	.907	-.093	.097	.911	-.118	.095	.888
Family Care	.713**	.143	2.04	.610**	.146	1.841	.655**	.145	1.924
Age	.033	.051	1.034	.051	.053	1.052	.038	.051	1.039
Class Status	.302	.164	1.353	.321	.169	1.379	.294	.165	1.341
GPA	-.348**	.066	.706	-.309**	.069	.734	-.347**	.067	.707
Gender	1.314**	.134	3.723	1.438**	.140	4.214	1.345**	.136	3.840
Anger				.738**	.084	2.092			
Depression							.205*	.081	1.227
Constant	-2.342	.887	.096	-4.41**	.953	.012	-2.702	.899	.067

\*\*p&lt;.01 \*p&lt;.05

Table 7. Logistic Regression-Violence Perpetration (Females)

Variable	<u>Model</u> <u>4</u>			<u>Model</u> <u>5</u>			<u>Model</u> <u>6</u>		
	<i>B</i>	<i>S.E.</i>	<i>Odds ratio</i>	<i>B</i>	<i>S.E.</i>	<i>Odds ratio</i>	<i>B</i>	<i>S.E.</i>	<i>Odds ratio</i>
Sexual Abuse	.520*	.244	1.681	.418	.246	1.519	.493*	.246	1.638
Family Abuse	.619*	.251	1.858	.575*	.259	1.776	.592*	.252	1.808
Academic Status	.633**	.227	1.883	.542*	.233	1.719	.620**	.228	1.859
Economic Dissatisfaction	.068	.165	1.070	.056	.169	1.058	.037	.166	1.038
Family Care	.904**	.232	2.468	.758**	.238	2.135	.779**	.242	2.180
Age	.006	.094	1.006	.011	.097	1.012	.018	.095	1.019
Class Status	-.152	.263	.859	-.153	.271	.858	-.170	.264	.844
GPA	-.401**	.118	.670	-.407**	.122	.666	-.422**	.119	.656
Anger				.722**	.137	2.059			
Depression							.257	.132	1.293
Constant	-2.387	1.60	.092	-4.036	1.68	.18	-2.824	1.62	.059
								1	

\*\*p&lt;.01 \*p&lt;.05

Table 8. Logistic Regression-Violence Perpetration (Males)

Variable	<u>Model</u> <u>7</u>			<u>Model</u> <u>8</u>			<u>Model</u> <u>9</u>		
	<i>B</i>	<i>S.E.</i>	<i>Odds ratio</i>	<i>B</i>	<i>S.E.</i>	<i>Odds ratio</i>	<i>B</i>	<i>S.E.</i>	<i>Odds ratio</i>
Sexual Abuse	.287	.440	1.333	.251	.447	1.285	.263	.442	1.30
Family Abuse	.815**	.199	2.260	.664**	.206	1.943	.778**	.201	2.178
Academic Status	.468**	.166	1.597	.424*	.172	1.528	.485**	.167	1.625
Economic Dissatisfaction	-.205	.116	.815	-.193	.120	.825	-.219	.117	.803
Family Care	.573**	.179	1.773	.500**	.183	1.649	.551**	.180	1.734
Age	.046	.061	1.047	.070	.063	1.073	.049	.061	1.050
Class Status	.626**	.220	1.869	.657**	.226	1.929	.621**	.220	1.86
GPA	-.32**	.081	.726	-.26**	.084	.774	-.31**	.081	.732
Anger				.752**	.107	2.121			
Depression							.157	.105	1.170
Constant	-.913	1.06	.401	3.08**	1.147	.046	-1.197	1.077	.302

\*\*p&lt;.01 \*p&lt;.05

APPENDIX A  
DELINQUENCY MEASURE

*Violent Offenses* ( $\alpha = .90$ )

1. Scared someone with a knife.
2. Scared someone with a club or chain.
3. Scared someone with a gun.
4. Cut someone with a knife.
5. Hit someone with a club or chain
6. Shot someone with a gun.
7. Been in gang fight.

APPENDIX B  
NEGATIVE EMOTIONS

*Anger* ( $\alpha = .60$ )

1. I feel like hitting someone.
2. I get mad.
3. I get angry.
4. I fly off the handle.
5. I am hot headed.
6. I am quick-tempered.

*Depression* ( $\alpha = .73$ )

1. I feel low.
2. I am lonely.
3. I feel sad.
4. I am unhappy.
5. I feel bad.
6. I am depressed.
7. I am lonesome.

APPENDIX C  
INDEPENDENT VARIABLE SCALES

*Economic Dissatisfaction* ( $\alpha = .76$ )

1. Do your parents have good jobs?
2. What is your parent's income?
3. Does your family have enough money to buy the things you want?

*Family Care* ( $\alpha = .79$ )

1. Does your family about you?
2. Does your family care what you do?

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## BIOGRAPHICAL SKETCH

Jennifer Matheny grew up in the small town of Madisonville, Kentucky. After graduating high school, she moved to Lexington, Kentucky, to attend the University of Kentucky and become a Wildcat. Not truly knowing what career to pursue but knowing she wanted to help people, Jennifer graduated with a Bachelor of Arts in both psychology and sociology. After working for a couple years, she decided to return to school and attend the University of Florida and become a Gator. She will earn her Master of Arts degree in criminology, law, and society in May of 2006.