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WITNESSING INTER-PARENTAL VIOLENCE AT HOME:
ADOLESCENTS AND SCHOOL ACHIEVEMENT

by

Renita Robinson

A THESIS

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WITNESSING INTER-PARENTAL VIOLENCE AT HOME:
ADOLESCENTS AND ACADEMIC ACHIEVEMENT

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University of Nebraska, 2013

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Children's exposure to violence is a serious social problem, but little is known about the educational implications for adolescents witnessing violence between parents. This study uses social learning theory (SLT) to examine the relationship between high school-aged adolescent students who witness parental intimate partner violence (IPV) and academic performance demonstrated by their grade point averages (GPA). A secondary analysis of data collected from the survey of 1,132 adolescent students in a medium sized, suburban/rural city was conducted. Of the respondents, 83% of the students did not witness parental IPV between parents. Students witnessing the most parental IPV had the lowest GPAs. The multiple regression analyses of GPA included measures of substance abuse, truancy, aggression and witnessing parental IPV, with controls for age, gender, race, and family income. Witnessing parental IPV is significantly associated with lower GPA after controlling for age, gender, race and family income. However, IPV becomes non-significant when mediating factors of substance abuse, truancy, aggression and IPV are added.

I dedicate this thesis to Ruby Robinson,
for being my ever present cheerleader and encourager.

Thanks Mom!!!I love you.

WITNESSING INTER-PARENTAL VIOLENCE AT HOME:
ADOLESCENTS AND ACADEMIC ACHIEVEMENT

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CHAPTER 1. INTRODUCTION

Exposure to violence is a national crisis that affects approximately two out of every three of our children (U.S. Department of Justice, 2012). Children witnessing violence is a serious social problem with broad educational implications including dropping out of school (McCloskey, 2011) and homelessness (Tyler, 2006; Huth-Bock & Hughes, 2008). From the perspective of social learning theory (SLT), adolescent problem behavior can often be linked back to what is happening in the home. The consequences of children witnessing violence at home are of great interest to those working in: mental health, education, policy making, and social service (Sousa, et al., 2010; McCloskey, 2011; Johnson & Ferraro, 2000; DeBoard & Grych, 2011; Margolin & Gordis, 2000; Cunningham & Baker, 2011).

There is strong empirical evidence that many children who witness violence in their homes experience negative psychological and behavioral problems (Sousa et al., 2010; DeBoard & Grych, 2011; Margolin & Gordis, 2000; Cunningham & Baker, 2011; Moretti, Obsuth, Odgers, & Reebye, 2006). It is important to know if these psychological and behavioral problems contribute to negative educational outcomes. Negative educational outcomes (i.e. low grades, peer rejection) often lead to students failing in school (Gutman, Sameroff, & Cole, 2003). Drop-out rates have been studied for students who witness violence in their homes, but the relationship between witnessing parental IPV and adolescent grades (GPA) has not been studied. To effectively identify and prevent the development of risk factors associated with negative externalizing behaviors and students failing to make academic progress, researchers and practitioners need a broad understanding of how witnessing parental IPV impacts GPAs. Numerous gaps exist

in understanding the impact witnessing parental IPV has on adolescents. Methodological issues such as different measures for intimate partner violence and inconsistencies in findings/ conclusions among studies raise questions about these research conclusions (DeBoard & Grych, 2011; Barr et al., 2012; Kitzmann, 2003; Margolin & Gordis, 2000; Kerig, 1998).

Specific research focused on the adolescent years (McCloskey, 2011) is lacking. Stressful family circumstances such as witnessing parental IPV intensify the normative challenges of this stage of development and can lead to poor educational outcomes. Both parental PV and witnessing by adolescents should be preventable and therefore it is important to study these have negative consequences. Despite considerable research on violence, witnessing violence, and the consequences of IPV, there is still a need for a study to specifically assess if those educating or providing services to students who have witnessed IPV will need extra interventions to reduce truancy, aggression and substance abuse, and ultimately to encourage academic success. The purpose of this study is to investigate the relationship between adolescent students who witness parental IPV and their academic performance as measured by GPA. It also considers the possible mediating effects of truancy, aggression, and substance abuse as barriers to student success.

CHAPTER 2. THEORETICAL FRAMEWORKS

2.1 Social Learning Theory

Social learning theory (SLT) examines learning that occurs within a social context and with this application it implies that witnessing parental IPV, truancy, aggression, and substance abuse are pathways to poor grades (Bandura, 1973; Bandura & Walters, 1963;

Henry, 2007). Some of the decline in grades associated with witnessing parental IPV is explained by children imitating parents and getting in trouble at school for issues related to violence; however, not all youth who witness violence engage in violence or aggression (McCloskey 2011). Social learning theory contributes to explaining the phenomenon, but does not address the entire issue. It is important to further explore the pathways that could lead to lower grades for those who witness parental IPV.

Because SLT focuses on the social context, it is important that school officials consider the effect that a child's home life may have on their performance at school, both academically and behaviorally. This theory considers that people learn from one another, through observational learning, imitation, and modeling. Students who witness parental IPV at home bring that aggression to the school setting, thus harming their ability to learn and have academic success. If witnessing parental IPV leads to lower grades for those who are more aggressive, truant, or who use drugs and alcohol, and schools cannot prevent IPV in the homes of students, they could take steps to limit the impact by addressing aggression, truancy, and substance use. Social learning theory explains this process in terms of a continuous reciprocal interaction: reciprocal determinism.

Reciprocal determinism does not imply that all sources of influence are of equal strength (Bandura, 1977). Some sources of influence are stronger than others. In fact, interactions will differ based on the student, the particular behavior being examined, and the specific situation in which the behavior occurs. For example, students who come from homes with IPV (varying amounts of hitting, yelling, and force) may have different expectations, beliefs, self-perceptions, goals, and intentions than those who witness less or have none at all. How they behave and how the school environment responds to them

is important. The behavior that is exhibited and how it is responded to will affect students' thoughts and emotions (Bandura, 1977; 1989) and may lead to externalizing behaviors such as truancy, aggression, and substance abuse. Bandura (1977) believed that the type of instruction delivered within a classroom could influence classroom learning and the interactions that occur within the school setting. The interactions between students and home/school environment can have a reciprocal effect by which the environment influences behavior, and behaviors influence the environment.

This is an example of SLT's reciprocal determinism which occurs between the environment and students' personal characteristics. Expectations and beliefs are developed and modified by social influences within the environment. Behavior also influences the environment, such as when an aggressive student creates a hostile environment and teachers and fellow students choose not to engage him or her. Behavior determines which of the many potential environmental influences come into play and what forms they will take. In turn, the environment partly determines which forms of one's behavior are developed and activated (Baldry, 2003; Bandura, 1977; 1989).

Social learning theory is a key pathway from witnessing parental IPV to lower academic grades through increased aggression (Moretti et al. 2006). But there may be other explanations for why students who have witnessed IPV have trouble in school, such as students avoiding school and becoming truant, students feeling unsafe at school and displaying aggressive behaviors, or students becoming stressed out and abusing substances as a coping strategy.

The adolescent stage of childhood development is often accompanied by new and magnified problems (McCloskey, 2011; Eccles & Midgley, 1989). Adolescents moving

from middle school to high school confront a series of new social and academic demands that place some at more risk for the development of problem behaviors (Wang, Selman, Dishion & Stornshak, 2011). The ability to cope can change over time and can be impacted by the situational contexts in which the need for coping arises. It is possible that some problem behaviors are ways adolescents try to cope with the new demands in their lives. Social learning theories are often used to explain substance use and delinquency among adolescents (Hirschi 1969).

Viewing problem behaviors through the lens of a coping strategy offers insight into substance abuse and social learning amongst adolescents. An issue in the current research on children witnessing violence has to do with the fact that the children's responses seem to vary according to their age during the incidents (Osofsky, 1995). Because of the tenuous nature of the developing adolescent, it is necessary to be mindful of their attempts at coping over time and across sources of stress (i.e. grades, friends, puberty, family interactions, etc.). There are good grounds in theory and research for believing that the coping process is linked specifically to the kind of emotion experienced in an adaptational encounter and the conditions that elicit it (Lazarus, 1992).

In research, children who witness violence between parents, guardians, or caregivers are often ignored when discussing the impact of violence. The focus on adult victims and perpetrators overshadows them (Groves, Zukerman, Marans, & Cohen, 1993). As a result, not as much is known about the far reaching developmental impact that witnessing this type of violence has on "forgotten" victim-witnesses, the implications for their poor coping through the use/abuse of substances, or their increased risk of emotional, behavioral, academic and social problems (Kolbo, Blakely, & Engelman,

1996; Pfouts et. al., 1982). What can be generalized from the research is that immediate and long term problems (i.e. anxiety, depression, anger, self-esteem, aggression, delinquency, interpersonal relationships, and substance abuse) are likely to occur in children exposed to domestic violence (Jouriles, Murphy, O’Leary, 1989; Silvern, et al., 1995; Sternberg, et al., 1993) and unhealthy coping is likely to compound and intensify the risk of other negative outcomes (i.e. substance use, prostitution, homelessness, physical illness or injury, and victimization) that have been linked to substance abuse (Tyler 2006). The focus of this study is on student academic outcomes for those who witness parental violence in the home, and the possible mediating influence of externalizing behaviors on the GPAs.

CHAPTER 3. BACKGROUND/LITERATURE REVIEW/GAPS

There is consensus among social scientists and government officials that more focused research must be done to gain clarity related to the outcomes and implications for educational performance amongst child witnesses of violence (McClosky, 2011; Cunningham & Baker, 2011; Farrell & Sullivan, 2004). The earlier schools intervene in the lives of students witnessing parental IPV, the greater the chance of preventing behavior that rises to a problem level effecting negative academic outcomes (Wang et.al, 2010). Research has identified links between exposure to violence and children’s subsequent use of it. For example, Singer et al. (1999) studied 2,245 children and teenagers and found that recent exposure to violence in the home was a significant factor in predicting violent behavior. Students who observe parents solving problems by using violence against each other use violence against other students in school as an extension

of the way they have learned to respond to disagreements at home. Social learning theory offers a model for addressing student adjustment and an array of maladaptive patterns that arise from exposure to IPV (Yates et al., 2003).

Despite a growing body of research on children witnessing parental IPV, gaps remain. High school-aged youth are underrepresented in cross-sectional samples of youth exposed to IPV (Cunningham & Baker, 2011). What we know is that witnessing violence is a problem in families: An estimated 10.7 million of the 52.7 million U.S. children (ages 0-17) living with two parents live in homes where male-to-female intimate partner violence between adults has occurred in the last year (Cunningham & Baker, 2011). We do not know if witnessing parental IPV creates greater risk for school problems or problems in academic achievement or how. The current analysis examines whether and how witnessing parental IPV compounds these risks to academic achievement.

In the last 20 years, sociological (Breen & Jonsson 2005), psychological (DeBoard-Lucas & Grych 2011; Grych & Fincham 1990), and pedagogical (Parcel & Dufur 2001; Lee & Burkam 2003) research results have shown that many factors influence school outcomes. These factors include: resources, norms, environments, social relations at home and school, motivation, and the psychological health of the child. Of these various factors, home background has been found to be statistically more influential than school effects (Thrupp 1999). Therefore it is likely that the negative effects of children witnessing parental IPV in their homes follows them into classrooms, more research is needed to understand this effect.

3.1 Gender

There is an absence of studies examining whether abuse and exposure to domestic violence affect boys and girls in the same way (Sousa et al., 2010). Edelson (1999) published a review of 31 research articles and expanded the common definitions of how children witness adult domestic violence. The most important conclusion for this project involved characteristics in the children indicating that boys show more visible evidence of the effects through externalized behavior, such as hostility and aggression while girls display more internalized problems, such as depression and somatic complaints (Carlson, 1991; Stagg, Wills & Howell, 1989).

Witnessing violence has been associated with trauma in children (Cunningham & Baker, 2011; DeBoard-Lucas & Grych, 2011; Kilpatrick et al., 2003; van der Kolk, Pelcovitz, Sunday, & Spinazzola, 2005). The amount of trauma boys and girls experience as witnesses is equal while the patterns of symptom expression are different (Kilpatrick et al., 2003). School performance is one area where this difference in symptom expression is particularly important because of the impact it has on academic performance (Jimerson, Egeland, & Teo, 1999; Wentzel, 1993).

Witnessing parental IPV leads to more externalizing behavior for boys and more internalizing behaviors for girls (Yates et al., 2003). Boys identify more with men and want to be like them. Cunningham and Baker (2011) suggest children witness male to female violence at a very high rate. Observational learning within SLT suggests the aggression being displayed by boys at school may be the result of having watched violence by men in their homes; they want to be like these men and they imitate their behavior at school (Bandura, 1977). The confusion that often accompanies witnessing

parental IPV has the potential to lower self-control which can lead to lower grades either directly or indirectly through more aggression, truancy or substance use.

While externalizing outcomes in boys have been documented (Yates et al., 2003) and some research has looked at the effects of sex-specific IPV (Moretti et al., 2006), gaps remain related to academic outcomes. Research on the externalizing behaviors of boys is expanding (Hinshaw 1992, Edelsen 1999) but the research on girls' externalizing behavior is lacking and no research exists linking witnessing parental IPV to problem school behavior and to GPA. This is consistent with research suggesting problem behavior has a negative association with academic performance (Wang et al., 2010) which may also contribute to lower grades.

3.2 Age

The responses from children witnessing violence vary considerably by whether children are under school age, early school aged, teenaged, or young adults. Though the results are conflicting related to the age of children's greatest vulnerability, research does confirm a difference in the expression of trauma between older children and younger children (Kilpatrick et al., 1997). Student responses to witnessing violence need to be examined in light of their age (Kerig, 2003). The age at which children witness IPV is important (Kaufman et al., 2011) because Students who have had more exposure to IPV over time may not be processing information or learning at their current grade level. We also know that older children exhibit more externalizing behaviors than younger children (Hirshi 1969) ; perhaps older children's contextualizing of the violence has a greater negative impact on them.

3.3 Externalizing Behaviors (Truancy, Aggression, Substance Abuse)

Externalizing behaviors are actions that direct problematic energy outward and may be used interchangeably in this paper as: problem behaviors, “at risk” behaviors, negative behaviors, conduct problems, etc. Numerous studies have documented a relationship between negative behaviors and lower academic achievement (Wang, Selman, Dishion & Stormshak, 2010; Feshbach, Adelman & Fuller, 1977; Kane, 2004; Hallfors et al., 2006; Svanum & Bringle, 1982; Akey, 2006). Negative behaviors can have a direct impact on the quality and amount of instruction delivered by the teacher when they are exhibited in a classroom setting. Teachers who spend considerable time addressing negative student behaviors invariably spend less time focused on classroom instruction.

Witnessing violence does cause academic deficits in students. In 2003, Kitzmann et al. combined a comprehensive review with a meta-analytic evaluation of 118 studies. Results showed that 63% of students exposed to physical IPV had deficits that were significant when compared to students not exposed to IPV. Research is not clear on the mechanism that these deficits come through. Children and adolescents up to age 19 who had been exposed to physical IPV displayed more social and academic problems and more negative affect and negative cognitions compared to those who were not exposed to physical IPV. The findings demonstrated that exposure to IPV was related to internalizing and externalizing problems as well as overall adjustment. Students not performing well in school may act out to divert attention from their poor academic performance or skip school. Similarly, Wolfe et al. (2003) found that behavioral problems provide evidence of other processes underlying these effects.

Prior research supports the idea that bad behavior leads to bad grades. A longitudinal achievement study conducted by Jimerson et al., (1999) reported that behavior problems accounted for decreased achievement outcomes, even when controlling for previous levels of achievement. Wentzel (1993) examined the effects of classroom behaviors on the academic achievement of middle school students. Academic achievement was measured using grade point average (GPA), and scale scores from the Stanford Test of Basic Skills (STBS). Predictor variables included measures of pro-social, antisocial, and academically-oriented behavior. Results revealed that there was a significant relationship between academic achievement and academically-oriented behavior, teacher preferences for behaviors, and pro-social behavior. Rutter, Tizard, and Whitmore (1970) found that low reading skills were more common in students displaying conduct problems than in students who displayed no conduct problems. Social learning theories offer insight into the possible root of conduct problems.

Truancy, aggression, and substance abuse are additional externalizing behaviors associated with adolescents witnessing violence and educational outcomes. Truancy is a problem in schools across the United States (Henry, 2007; Henry & Huizinga, 2007; Symons, et al. 1997) and it is logical that students who are absent from school perform at lower levels than those who are not absent. Adolescents displaying externalizing behavior like truancy and aggression and those who engage in substance use are often categorized as “at risk” for delinquency and school failure. A variety of studies also link these behaviors to poor school performance (Sousa et al., 2010; Moretti et al., 2006; Halfors et al., 2006; Henry, 2007; Farrel, 2004; Barr et al., 2011; Baldry, 2003; Maisto et al., 1999; Hinshaw, 1992). A national sample of 4,023 adolescents aged 12 to 17 (Kilpatrick et al.,

2000) linked witnessing violence to an increased risk of substance abuse/dependence but did not study school failure. Therefore more research investigating truancy, aggression and substance abuse as the mechanisms through which witnessing parental IPV mediates academic performance (GPA) is necessary.

CHAPTER 4. METHOD

4.1 Research Questions

Two primary research questions guide this secondary survey data analysis:

1. Are students who witness parental IPV more likely to have lower GPAs than those who do not?

2. Do truancy, aggression, and/or substance abuse mediate the relationship between witnessing parental IPV and GPA?

4.2 Sample

This investigation uses data collected by a team of researchers from the University of Arizona lead by Travis Hirshi in the spring of 1997 in a medium-sized, suburban/rural city that houses a major southern university. For a more complete description of this data collection see Chapple et al., (2005). Students in two public school districts, in grades 9 through 11, present on the day of data collection were included in the sample—1,132 students were surveyed. One district serves mostly middle and upper class families and the other serves mostly working class families. The students completed a 200 question self-report survey. The survey instrument is a replication of Hirschi's Richmond Youth Survey used in *Causes of Delinquency* (1969).

The research team assured the students of anonymity and confidentiality and advised participants to refrain from answering any questions that made them feel uncomfortable, or to refrain from data collection completely. No students refused to fill out the survey although approximately 3% of the surveys contained such incomplete data that they were unusable. The resulting survey data analysis will inform the research questions related to witnessing violence and educational outcomes.

Slightly over half of the study participants were girls (51%), and most were white (86%) (See Table 4.1). The majority of the students were 16 years old or younger (75%) and in 9th or 10th grade (70%). One hundred-and-ninety-one students saw the father hit the mother and 194 saw the mother hit the father. Family incomes were almost split into quarters between less than \$25,000, \$26–39,000, \$40–65,000, and more than \$66,000. Almost one-fifth of the students came from families that were current or past welfare recipients (17%). Most lived in homes with their “real” father (63%) and/or “real” mother (86%), although residing with the mother was more common. A majority of students (84%) reported that their father has a college degree and almost half (44%) reported that their mother has a college degrees. The majority of fathers were employed full-time (84%), and about two-thirds of the mothers were employed full-time (64%). Nine percent of the cases were missing values on one of the variables in the analysis. An additional 4% were missing information on more than one variable.

TABLE 4.1. DEMOGRAPHIC CHARACTERISTICS OF SAMPLE

	Identifier	Percent of Respondents
Gender	Male	49%
	Female	51%
Age	16 years or less	75%
	17 years or more	25%
Grade	9 th or 10 th grade	70%
	Other grade	30%
Race	White	86%
	Non-White	14%
Witnessed IPV Status	IPV Witnessed	34%
	IPV Not Witnessed	67%
Income	Less than \$25K	21%
	\$26k - \$39K	22%
	\$40K - \$65K	22%
	More than 65K	25%
Received Welfare Current or Past		17%
Lives with Biological Parent	Father in Home	63%
	Mother in Home	86%
Parental Education Level	Father w/Degree	84%
	Mother w/Degree	44%
Parental Employment Status	Father Full-Time	84%
	Mother Full-Time	64%

4.3 Variables

4.3.1 Dependent Variable

GPA was the dependent variable used for an analysis of educational outcomes associated with adolescents witnessing parental IPV. GPA at the time of the survey was assessed on a 4-point scale and is reported by the student using 1=D through 4=A. This was a general question asking: What kinds of grades do you get? The possible responses were: Mostly As, Mostly Bs, Mostly Cs, Mostly Ds, and Mostly Fs.

4.3.2 Independent Variables

A primary interest of this research is the effect on school achievement of violence witnessed within a student's family. The literature also demonstrates that adolescents who witness violence are more prone to high-risk behaviors. The direct academic effects of witnessing parental IPV may be mediated by these high-risk factors.

4.3.1.1 IPV. Witnessing intimate partner violence (IPV) status was an independent variable. Students indicated if they had ever witnessed either their *father hitting mother* or their *mother hitting father*. Potential responses for witnessing either parent hitting were measured on a 4-point scale with: 1=never, 2=once or twice, 3=several times and 4=many times and were averaged together across the two response categories.

4.3.1.2 Truancy as a possible mediating variable. To obtain a measure of truancy, three student report items were averaged together. The questions asked were: 1) Have you ever stayed away from school?; 2) Have you ever been sent out of classroom?; and 3) Have you ever been suspended or expelled? Scores ranged from 1 to 4 (1=never, 2=once or twice, 3=several times and 4=many times).

4.3.1.3 Aggression as a possible mediating variable. Three student report items were averaged together for a measure of aggression. The questions asked to obtain an aggression score were: 1) Have you ever hit a dating partner?; 2) Have you ever beaten up someone?; and 3) Number of fights in a year? Scores ranged from 1 to 4 (1=never, 2=once or twice, 3=several times and 4=many times).

4.3.1.4 Substance abuse as a possible mediating variable. Three items were averaged together for a measure of substance abuse. The questions asked to obtain a measure of substance abuse were: 1) Have you ever engaged in alcohol abuse?; 2) Have you ever engaged in marijuana abuse?; and 3) Have you ever engaged in drug abuse? Potential responses ranged from 1 to 4 (1=never, 2=once or twice, 3=several times and 4=many times).

4.3.3 Control Variables

Based on the literature review, I include the following variables as controls because of their association with school achievement or high risk behavior patterns.

4.3.3.1 Gender. Gender was used as a control variable and was dummy coded in the analysis so that male=1 and female=0.

4.3.3.2 Age. Age was a control variable measured in years and was grouped as: 14 or younger, 15, 16, 17 or 18, or older.

4.3.3.3 Race. Race was also used as a control variable. For this analysis it was coded into two groups (white=1 or non-white=0). Subjects who endorsed white and another category were categorized as non-white.

4.3.3.4 Family income. Family income was a control variable and students self-reported their family income. On the survey, they were provided income categories

and were able to select one of the following: 1) Below \$10K; 2) \$10-25K; 3) \$26-39K; 4) \$40-65K; or 5) At least \$66K.

CHAPTER 5. DATA ANALYSIS

Three types of analysis were conducted for this study. To analyze the data, Chi Square, Analysis of Variance (ANOVA), and Regression were used.

Table 6.1 compares the characteristics of students based on IPV status, the Chi Square test was used to investigate whether distributions differed by race and gender. Secondly, an ANOVA was conducted to explore the effect of Family Income, GPA, Truancy, Aggression, and Substance Abuse on IPV status.

Table 6.2 explores the effect of IPV status on GPA by conduction-- regression analyses. Four control variables were used in this analysis (Gender, Age, Race, and Family Income) and then Truancy, Aggression, and Substance Abuse were tested as possible mediating variables.

Lastly in Table 6.3, to explore the effect of IPV status on GPA, a regression analysis was conducted. The four control variables were used in this analysis (Gender, Age, Race, and Family Income) and then Truancy, Aggression, and Substance Abuse were introduced as mediating variables. After testing for these mediating effects of truancy, aggression and substance abuse as individual models, I present the full regression model for predicting student GPA.

CHAPTER 6. RESULTS

Results of the Chi Square test for race and gender and results of the ANOVA for family income, GPA, truancy, aggression, and substance abuse are presented in Table 6.1. Student's attributes are displayed by IPV status as a function of the two categories of hitting by parents. Hitting is defined by combining the responses of "once or twice", "several times" and "many times".

Overall, 256 students reported witnessing some level of hitting by a parent. The majority of students, however, never witnessed hitting by a parent ($n=875$). The Chi Square test revealed no statistical difference ($p = .59$) between males and females; male and female adolescents report witnessing parental IPV at equal rates. These two groups did display statistically significant differences by race ($p < .001$) such that 75% of the respondents who saw hitting were white and 25 % were non-white. In contrast, 89% of the respondents who never saw hitting were white and 11% were non-white.

The ANOVA test revealed statistically significant differences ($p < .001$) between those witnessing hitting and those not witnessing hitting for Family Income, GPA, Truancy, Aggression, and Substance Abuse. The students from lower income families were more likely to have been exposed to IPV than were students from higher income families. In addition, students witnessing parental IPV had a lower average GPA ($M = 2.7$, $SD = 1$) than students who did not witness parental IPV ($M = 3.1$, $SD = 0.9$). Truancy was reported at a higher rate for students who witnessed IPV ($M = 2.0$, $SD = 0.8$) than those who did not witness parental IPV ($M = 1.6$, $SD = 0.8$).

Respondents who saw no hitting reported lower rates of aggression ($M = 1.7$, $SD = 0.8$) than the students who saw hitting ($M = 1.3$, $SD = 0.6$). Lastly, students who did

not see hitting reported lower rates of substance abuse ($M = 1.9$, $SD = 0.9$) than those who did witness hitting ($M = 2.5$, $SD = 1.1$). Again, all difference among variables in the ANOVA test (Family Income, GPA, Truancy, Aggression, and Substance Abuse) were statistically significant ($p < .001$).

A multiple regression analysis was conducted to test the effects of witnessing parental IPV, Truancy, Aggression, and Substance Abuse on GPA. The results of the multiple regression analysis are presented in Table 6.2.

TABLE 6.1. GENERAL STUDENT CHARACTERISTICS FOR THOSE WHO REPORTED WITNESSING: HITTING BY EITHER PARENT OR HITTING BY NEITHER PARENT

	Hitting by Either Parent	Hitting by Neither Parent	p-value
Number	256	875	
Gender (%male)	48% (122)	50% (432)	$p=.59$
Race			
White	75% (193)	89% (778)	$p < .001$
Non-white	25% (63)	11% (94)	
Family Income % (N)			
Below \$10K	14% (31)	7% (52)	$p < .001$
\$10-25K	20% (47)	14% (109)	
\$26-39K	32% (74)	22% (174)	
\$40-65K	21% (48)	25% (199)	
At least \$66K	13% (30)	32% (254)	
GPA Mean (SD)	2.7 (1.0)	3.1 (0.9)	$p < .001$
Truancy Mean (SD)	2.0 (0.8)	1.6 (0.8)	$p < .001$
% Never	27% (68)	51% (441)	
Aggression Mean (SD)	1.7(0.8)	1.3(0.6)	$p < .001$
% Never	45% (116)	74% (644)	

Substance Abuse	2.5(1.1)	1.9(0.9)	p < .001
% Never	23% (58)	47% (411)	

Note: The mean and (SD) are reported for Truancy, Aggression and Substance Abuse and the percent of students with no instances of truancy, aggression or substance abuse use are reported.

Results of the regression analysis revealed that IPV had a significant association with race and family income, but it did not have a significant association with gender and age. Truancy had a significant association with gender and race however there was no association with age and family income. Aggression had a significant association with gender, race and family income, but now with age. Age was the only variable to have a statistically significant association with substance abuse.

TABLE 6.2. REGRESSION ANALYSIS OF CONTROL AND MEDIATING VARIABLES

Dependent variable: GPA

Independent variable: IPV; Truancy; Aggression; Substance Abuse;

Control variables: Gender; age, race, family income

	IPV			Truancy			Aggression			Substance Abuse		
	B	SE	Beta	B	SE	Beta	B	SE	Beta	B	SE	Beta
Gender	.003	.025	.003	.344	.047	.222***	.267	.038	.213***	.048	.065	.023
Age	-.007	.013	-.017	.030	.024	-.038	.012	.019	.018	.173	.033	.162***
Race	.210	.034	.186***	.218	.064	.104***	.247	.052	.146***	.229	.088	.081**
Fam Inc	-.066	.010	-.200***	-.030	.019	-.050	-.031	.015	-.062*	-.043	.026	-.052

*p<.05, **p<.01, ***p<.001

To further explore the relationship between GPA and witnessing parental IPV, a series of regression analyses were conducted using models to assess independent and mediating effects. The results are displayed in Table 6.3.

Table 6.3 further explored the relationship between Grades and IPV, through a series of regressions. In all analyses, student GPA was the outcome variable. When IPV was the sole predictor variable, it was significantly and negatively associated with GPA ($p < .001$) with more IPV associated with lower GPA. When the four control variables (Gender, Age, Race, and Family Income) were added to the regression, IPV (model 2) remained significantly associated ($p < .001$), with more witnessing of parental IPV associated with lower GPA.

However as indicated in models 3-6 when the three mediating variables were included in the regression IPV was no longer significant. Model 3 included IPV, Control variables, and Aggression. Model 4 included IPV, Controls, and Truancy. Model 5 included IPV, Controls, and Substance Use. Model 6 included IPV, Controls, and all three mediators. When IPV alone was used to predict GPA, it was highly significant ($p < .001$). (Students witnessing parental IPV had lower GPAs.) When combined with the control variables in a multiple regression it remained significant ($p < .001$). IPV became non-significant when any of the predicted mediating variables were added to the model, which suggests all variables are highly related.

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TABLE 6.3: MULTIPLE REGRESSION OF IPV AND RISK FACTORS ON STUDENT GPA

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	
IPV	-.431	.067	-.176***	-.295	.072	-.137***	-.129	.071	-.060	-.057	-.040	.069	-.019
Gender			-.262	.057	-.148***	-.165	.056	-.093***	-.097	-.054	-.119	.054	-.067*
Age			-.067	.029	-.075*	-.062	.027	-.069*	-.059	-.026	-.045	.027	-.051
Race			-.139	.080	-.057	-.094	.077	-.038	-.087	.074	.085	.074	-.035
Fam Inc			.094	.023	.133***	-.095	.022	.134***	.092	.021	.092	.021	.130***
Aggression						-.421	.048	-.287***			-.209	.051	-.143***
Truancy									-.353	.040	-.299***		-.297
Sub Abuse											-.093	.030	-.109**

*p<.05, **p<.01, ***p<.001

In Model 1, IPV served as the predictor variable and GPA was the outcome variable. Results show that witnessing parental IPV is associated with lower GPA ($p < .001$). In Model 2, the control variables (Gender, Age, Race, and Family Income) were added into the regression. Witnessing parental IPV remains significantly associated with lower student GPA ($P < .001$). Among the control variables, race is not significant.

For Models 3-5, the three mediating variables (Aggression, Truancy, and Substance Abuse) were added to the regression respectively. With each of these mediating variables, witnessing parental IPV was no longer significantly related to GPA. Aggression, truancy and substance abuse each significantly mediated the relationship of witnessing parental IPV to lower GPAs. These externalizing factors remain significant in predicting lower student GPA, even as control variables are included. Note that family income remains a significant independent predictor in each of these models, with higher family income contributing to higher student GPA. However, race makes no contribution to variation in student GPA once family income is controlled. Gender is significant in the models for aggression and substance abuse, such that male students have a greater likelihood of lower GPA outcomes. Age is only marginally significant in the models for aggression and truancy, predicting lower GPAs for older students.

The full model, Model 6, included all variables (IPV, Controls, and Mediating variables). Again, the significant direct effects of witnessing parental IPV are reduced to non-significance when all externalizing behaviors are included as mediators. Family income retains significant independent effects after controlling for all other factors, and gender has moderate effects on lower GPAs for males.

CHAPTER 7. DISCUSSION AND CONCLUSIONS

Witnessing parental IPV is negatively associated with externalizing behaviors of truancy, aggression, and substance abuse in adolescents. These externalizing behaviors are significantly negatively associated with GPA. Results from this study support the idea that witnessing parental IPV is associated with GPA through externalizing behaviors. Two hundred and sixty out of 1,132 students witnessed parents hitting (almost 25%). Higher rates of hitting were associated with lower GPAs and externalizing behavior that is associated with lower student grades. This has serious implications for families, communities and schools. Race and family income factors are important when investigating children witnessing violence because race is often a predictor of income and income often predicts the neighborhoods and family settings children live in and the schools they attend. Children who live in poorer communities and witness higher levels of violence in their families and have poorer educational outcomes. The race measure is limited in this study and no measures exist that allow the examination of neighborhood school processes associated with truancy, aggression and substance abuse.

Results from the data indicate that witnessing parental IPV does matter for adolescent academic achievement, and that it matters more for students who are already disadvantaged in schools by low incomes or racial/ethnic neighborhood factors. Data confirmed expectations that witnessing parental IPV would have a negative association with GPA. The data demonstrated that hitting by parents in general has a negative effect on GPA. This finding of the impact of witnessing parental IPV on GPA makes a specific contribution to the research on home environment's influence on educational outcomes. How educators respond to the mediating variables of adolescent truancy, aggression and

substance in the schools exemplifies reciprocal determinism. Researchers agree that witnessing violence can lead to PTSD or other mental health outcomes. Since trauma impacts cognition differently at different developmental stages, knowing how witnessing parental IPV affects adolescents may help educators and policy makers respond more appropriately (i.e. developing intervention and treatment efforts) to the educational risk factors stemming from witnessing parental IPV.

SLT holds that children learn different behaviors through observational learning, imitation, and modeling. Current study findings reveal that youth who witnessed parental IPV are at greater risk for imitating and modeling IPV behavior via aggression, truancy, and the use of alcohol and/or drugs resulting in lower grades and harming their ability to learn and achieve academic success.

Knowing that reduced student grades grade point averages may be a sign of witnessing violence could cue school officials to check for violence in the home and/or neighborhood environments of students. It is important to understand the impact of being a victim of and witness to violence since the research suggests a significant negative impact on school performance (Sousa, et al., 2010).

This study aimed to fill a gap in the research on adolescent achievement measured as student GPA and their reports of witnessing parental IPV. However, there is still work to be done. The amount of hitting, which parent is hitting and the gender of the student and its impact on grades are areas for future study. Additionally, how educators respond to the mediating variables of adolescent truancy, aggression and substance use in the schools highlight the important mediators of family violence in the home and achievement highlighted by these findings.

For further study, I suggest structural equation modeling of longitudinal data (i.e. Adhealth). Studies have suggested a difference between the expression of the trauma of witnessing violence for boys and girls (Edelsen, 1999; Carlson, 1991; Stagg, Wills & Howell, 1989). Despite interest in gender differences (Edleson, 1999a; Herrenkohl et al., 2008; Maughan & Cicchetti, 2001; Sternberg et al., 1993). Gender effects related to witnessing parental IPV generates another research area deserving more attention. More longitudinal research identifying the differences in the externalizing/internalizing behaviors of girls and boys is necessary to better understand links between gendered high risk factors and academic achievement outcomes. The role of witnessing parental IPV may be mediated by these high risk factors, and young males and females may learn to respond differently in school and peer settings.

7.1 Limitations

This was a secondary data analysis and the format of the original questions created obstacles for conducting a pure mediational analysis. There were no longitudinal data available enabling me to compare student GPA before and after witnessing the violence, or information on when the instances of violence occurred. Respondent answers on questions related to grades and family income were based on self-reports. Student high risk behaviors were also all self-reports which means that the accuracy of substance use, aggression, and truancy may need to be triangulated with school measures of these important factors in future research.

The SLT offers an explanation for why some children witnessing violence at home might behave aggressively at school, but we do not know if violence in the home pre-dated the survey or when violence started in the homes.

The homogenous racial/ethnic nature of the sample creates problems regarding generalizability and makes it difficult to extend the research related to the varied links between children witnessing violence and grades specifically. Despite the size of the survey population, the small group sizes of non-whites do not allow conclusions about other racial groups. Students in the study reported multiple races and I had to collapse the category into white/non-white because of sample sizes. This reduces my ability to distinguish how these mediating factors operate across different racial/ethnic groups. However, it extends the research to include a sample of high school aged students who have witnessed violence and had it impact their grades. This study can serve as a base to future research on high school aged students that witness parental IPV.

Many in-depth studies on child victims and witnesses of IPV have been conducted on families in homeless shelters. Adolescent victim-witnesses are often absent from the families interviewed at domestic violence and other homeless shelters as a result of social service interventions. Most homeless shelters do not allow boys older than 14 in their shelters, which impacts the shelter-based research on adolescent boys who witness parental IPV. Many adolescent witnesses to parental IPV become homeless, and may not be interviewed in school-based studies. Thus their voices are largely absent in the area of research. A focus on adolescents victimized by witnessing parental IPV and effects on school achievement would make major contributions to educational research on the troubled adolescent middle and high school years.

7.2 Conclusions

1. Results of this study addressed a gap in the research examining the negative effects of high school aged girls and boys witnessing parental IPV on GPA. Respondents

who saw no hitting reported the lowest rates of: truancy, aggression toward others and substance abuse. When each of the variables was measured independently, age, race, family income, truancy, aggression and substance abuse, were significantly associated with GPA, gender did not reach significance.

2. Students who witness parental IPV are more likely to have lower GPAs than those who do not.

3. Truancy, aggression and substance abuse do mediate the relationship between witnessing parental IPV and GPA.

4. IPV was not significantly associated with GPA in the regression analysis once mediating factors were included.

Overall, the findings of this study support the hypothesis that the academic performance (GPAs) of adolescents is negatively associated with witnessing parental IPV. The social learning pathway through mediating high risk factors of truancy, aggression and substance abuse suggests that externalizing factors for adolescent are important. The linkage of these high risk factors to witnessing parental IPV warrants more research in the future that should pay attention to variations for males and females, perhaps across racial and ethnic groups. The role of family violence in the lives of students should be assessed as a factor in other high risk behaviors that also directly affect academic outcomes.

Schools can minimize the impact of witnessing parental IPV by providing powerful counter messages (e.g. aggression reduction) in social learning interventions. Parents' IPV can be emphasized as a NEGATIVE role model by teaching prosocial behaviors– and rewarding them– at school. Reciprocal determinism supports findings

from this study that suggest it is important to look at the individual student's behaviors and the specific characteristics of the student. It also reinforces the need to explore factors in general associated with increasing or decreasing GPA.

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