Indiana University of Pennsylvania
Knowledge Repository @ IUP

Theses and Dissertations (All)

8-2008

Intimate Partner Violence on Campus: A Test of Social Learning Theory

Keith J. Bell
Indiana University of Pennsylvania

Follow this and additional works at: http://knowledge.library.iup.edu/etd

Recommended Citation
Bell, Keith J., "Intimate Partner Violence on Campus: A Test of Social Learning Theory" (2008). *Theses and Dissertations (All)*. 1032.
http://knowledge.library.iup.edu/etd/1032

This Dissertation is brought to you for free and open access by Knowledge Repository @ IUP. It has been accepted for inclusion in Theses and Dissertations (All) by an authorized administrator of Knowledge Repository @ IUP. For more information, please contact cclouser@iup.edu, sara.parme@iup.edu.

INTIMATE PARTNER VIOLENCE ON CAMPUS:

A TEST OF SOCIAL LEARNING THEORY

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the Requirements for the Degree

Doctor of Philosophy

Keith J. Bell

Indiana University of Pennsylvania

August 2008

© 2008 by Keith J. Bell

All Rights Reserved

Indiana University of Pennsylvania
The School of Graduate Studies and Research
Department of Criminology

We hereby approve the dissertation proposal of

Keith J. Bell

Candidate for the degree Doctor of Philosophy

_____ _____

Rosemary Gido Ph.D.,
Professor of Criminology

_____ _____

Alida Merlo Ph.D.,
Professor of Criminology

_____ _____

Erika Frenzel Ph.D.,
Assistant Professor of Criminology

_____ _____

Maureen McHugh Ph.D.,
Professor of Psychology

ACCEPTED

_____ _____

Michele S. Schwietz, Ph.D.
Assistant Dean for Research
School of Graduate Studies and Research

Title: Intimate Partner Violence on Campus: A Test of Social Learning Theory

Author: Keith J. Bell

Dissertation Chair: Dr. Rosemary Gido

Dissertation Committee Members: Dr. Alida Merlo
Dr. Erika Frenzel
Dr. Maureen McHugh

The current study sought to examine the theoretical field of intimate partner and domestic violence research. The research focused on integrated social learning, power-control, and fundamental components of intergenerational transmission and male-support theories. The use of the Conflict Tactic Scale (CTS 2), Seller's (2003) social learning subscale, and a combination of measures of power-control theory were used to determine the relative strength of learning, power, and male social networks in relation to perpetrating and becoming the victim of physical and psychological abuse in intimate relationships.

Qualitative data were utilized with 361 college-aged students from a mid-sized north eastern university. The data were collected in a classroom environment. The dependent variable data were dichotomized due to few acts of "repeated" perpetration of violence. The results indicated differential association continues to be the strongest measure of future acts of violence perpetration and victimization in intimate partner relationships. However, minimal support was found for three of the four remaining measures of social learning theory. Additionally, very little support was found for power-control and male-support theories with intimate partner violence.

A significant result for gender, in the current research, indicated women are more likely to perpetrate both physical and psychological violence at rates higher than their

male counterparts. More surprisingly, both men and women who self-reported being hit, punched, or slapped by a partner, failed to recognize these acts as physical violence. The current findings are supportive of social learning theory and further the debate between usage of the CTS (2) and gender with intimate partner violence. The need for further research, especially with gender, power-control theory, a detailed definition of what constitutes violence, and additional theories such as neutralization, should be addressed.

ACKNOWLEDGMENTS

First, I want to thank everybody involved with "getting me" here. A dissertation may be credited to one university, or to a small chunk of one's life, but there are people that have allowed me to succeed today for things done years before the beginning of my college career. To everybody…..THANK YOU! However, there are those of you that stick out as valuable teachers, family, friends, and most importantly, my support staff. First, I would like to thank my dissertation chair, Dr. Rosemary Gido. Dr. G., it was a long road. It appeared our road was a never-ending circle, a dead-end, and had more then a fair share of roadblocks along the way. Through many drafts, endless amounts of "teaching", "training", and "parenting", you allowed for these hurdles to become just small bumps along the way. To you, I am grateful! Because of your guidance I have finished, but because of your personal approach to "teaching" and making sure I "learned" the process of research, you have developed me into the man I am today. Thank you! Additionally, I need to give a special thanks to Dr. Christine Sellers. Dr. Sellers, your unselfishness to sit down with a raw graduate student eager to build from your success, and to provide valuable insight and allow me to use your survey and design, clearly portrays your character. Although our communications have diminished over the years, I hope you know that none of this would be possible without the personal touch and unselfish acts you provided along the way.

Second, I would like to thank my committee. Dr. Frenzel, Dr. Merlo, and Dr. McHugh, thank you for taking the time to help me through the process. Your comments and suggestions were very helpful from beginning until the end. You have allowed me to build ideas from this dissertation for future publication and I thank all of you for your

support. Erika, a special thanks goes to you. Although we often discussed the dissertation process over lunch back in my teaching days at IUP, I was still intimidated by your statistical wizardry and my fears probably delayed this final product a time or two. Thank you for eliminating my fear of LOGIT and getting me over the final hurdle.

Third, I would like to thank my parents and family. Mom, you are #1. I know I am the youngest and I will always be your baby, but without your guidance, and especially your patience, financial support, strong listening skills, and desire for me to finish, this day would have never come. Everything I have accomplished to this date has your stamp of approval on it. You have made numerous sacrifices over the years to raise three kids and to keep us happy. I hope today I may have returned that favor to you. To my step-father, thank you for stepping into a family and helping to raise three children. This clearly was something you did not have to do, but you did, and you treated all of us as your own. By keeping our mother happy, you have in turn kept us happy. To my Dad, although I will not always understand our relationship, some good, some bad times, I know we are opinionated, complex, and hard-working men. Although our time together was limited, the one thing I credit to you is my patience. The patience you taught me through hunting, fishing, and even my first job, has allowed me the patience to stick through college for 12 years as well. I would also like to thank my sister Dawn, my brother Kevin and his wife Faith, and my nieces Brooklyn, Lydia, and my nephew Noah. All of you have contributed in one way or another to my success. Financially, Dawn you have always been there for me. If I needed money for books or when I told you I needed money for books but instead went to the Ratt and drank beer, you were my bank on short notice. You also are my gambling buddy for the races, the slots, and the oh so wonderful

game of roulette. Thanks for always being there over the years. To Kevin, thanks for being an older brother and beating the crap out of me for so many years. Although I do not fear you as years past, I do thank you for making me strong enough to put up with "those people' who attempted, but failed, to stand in my way. Thanks to you, and your family, for everything you have done.

Fourth, I would like to thank Karen Taylor, John Lewis, faculty, friends, and everybody else during the process that continued to provide valuable editorial work and insight. Once again, these generous acts of kindness will never be forgotten. The work of two graduate assistants along the way should be mentioned as well, Bradford Clark and Bo Pritts. These two gentleman worked hard with editing, redeveloping the survey, codebook, and most importantly, kept me laughing throughout the entire process. Additionally, I would like to thank some of my closest friends over the years. Mike "Chumly" Heise, Paul "PK" Klenowski, and my boys of Dunn Drilling Sunday Softball. On my good days I am a good friend, but on dissertation days, I am probably the last person any one of you wanted to be around. Thanks for letting me vent, even when I was not complaining about the dissertation, and for being there on "those days". Especially you Chumly, it was nice that you "let" me beat you so badly in Playstation football so often to relieve the stress. PK, we were not always on the top of the invite list, but boy, we sure knew how to crash the party. I would also like to take the time to thank my fellow teachers who shared an office with me in the Gordon Hall hot box office, John Lewis and Pat Harvey. I would like to say we shed a tear or two in the office working hard, but in reality, the average temperature of 108 degrees may have had more to do with it.

Fifth, I would like to thank Marshall University, the staff, the students, and especially the criminal justice department. We are a family. Dru and Kim, I have known you since my undergraduate days at WJU and you have always been there for me. Dru, my statistical guru, thanks for making the back row student wake up and pay attention over the years. Kim, you make a mean chocolate cake, but thank you most for your APA help along the way. Sam and Peggy, you were my bosses during my masters career, and now my colleagues for the last two years. I hope that I have made you proud as a student and also as a professor. Judy, you were my second mom forever. Thanks for your guidance, but most importantly, thanks for opening my eyes way back when to how beautiful of a person Jessica is to me.

Finally, there are two people that stand out in my life, other than my parents, that have been there for me in ways they never could imagine. First, Dr. Larry Driscoll, my Wheeling Jesuit mentor and probably one of the most caring bad-asses I know. Your personal approach to your students at Wheeling Jesuit has shaped some of the Ohio Valley's biggest slugs into some of academia's brightest stars. I know today without your guidance I would be lucky to have earned even my bachelors degree. I often tell people you have shaped me into the man I am, but then again, round, pudgy, and bald does not always characterize great men. Haha! You have been a father figure to me, and my teaching style mirrors yours to this day; from my demeanor in the classroom, my advising of students, and my support and motivation to those students who have the qualities to succeed, but they do not always know how to put it all together. Thanks for showing me how the puzzle fits together. Secondly, Jessica! What can I say about you? Eight years ago I walk into the graduate student office and across from me sits a

talkative, yet shy, blonde hair girl, who ended up one of my best friends during grad school. You put up with a lot from the boys in the group. We were loud, we were obnoxious, and we were not always the hardest of workers. However, even after being apart for many years you still saw something special in me. I will never forget the plaque you gave me upon leaving Marshall, " Keith Bell, Ph.D. to be." Well babe, I DID IT! This dissertation is as much yours as it is mine. Although I will always cherish that gift, your support and your belief in my abilities was one of the biggest motivating factors for my success. Some people do not believe in true love, or even higher powers bringing people together, but come on; I believe it was meant to be. You have been my biggest cheerleader since day one. You have grown with me, not only through our educational successes, but the process has brought us from friends, to best friends, to dating, and now marriage. I love you so much, and I want to thank you the most for putting up with me. Everybody who reads this will ask the same question, "What does she see in that guy?" My only answer, I don't know, but you have seen it since day one and I am thankful. You have helped build my career and now I get to build my life with you!

To anybody I forgot, I do apologize. There have been numerous people and events over the years that have contributed to my success. I would like to mention some; Sally Pranger for everything, enough said! Jeff Cohen and Cassandra Reyes for your support at my defenses, George Corian and Choi for your cat like moves, Dr. Timothy Austin for your help, Luke White for whipping me into shape, Western Carolina for taking a shot on me, the faculty that allowed me into their classrooms, the participants of my research, my students, and my fallen hero Phillip Knapp; Rest in peace pal!

Last, but not least, I am going to thank my dog. Yes, I thanked my dog. My dog Lady, who has been with me for the last twelve years since Day One of college, even though I leave her for long periods of time to go away to a new school, she has never left my side. She is my best friend and has always cheered me up when nobody else could. Thanks for being my shadow buddy!

Grounds Crew 4 Life!

TABLE OF CONTENTS

Chapter		Page
I	INTRODUCTION	1
	Theoretical Overview	2
	The Proposed Study	6
II	REVIEW OF THE LITERATURE	8
	Male Support Theory in University Settings	8
	Power-Control Theory	12
	Social Learning Theory	16
	Explaining Social Learning Theory	18
	Differential Association	20
	Differential Reinforcement	21
	Definitions	22
	Imitation	22
	Witnessing Abuse	24
	Predictors of Intimate Partner Abuse	28
	Trends with Intimate Partner Abuse	30
	Intergenerational Transmission Theory	32
	Conflicts Tactics and Intergenerational Transmission Theory	33
	Social Learning on Campus (Christine Sellers)	34
	Current Approach	37
III	METHODOLOGY	40
	Research Questions	42
	Conflict Tactics Scale	43
	Severity Level	44
	Criticism	44
	Survey Instrument	48
	Dependent Variable: Intimate Partner Violence	49
	Independent Variables: Social Learning and Power-control	50
	Hypotheses	59
	Sampling Methodology	64
	Sampling Population	65
	Procedures of Human Subject Protection	66
	Analysis	67
	Strengths & Limitations	70
	Policy Implications	71
IV	ANALYSIS	72
	Sample Population	72

Hypotheses 74
Social Learning Model (Perpetrated and Victimized Physical and Psychological Violence) 83
Models 1-4: Regression Models for Independent Variables 87
Model 1: Perpetrated Physical Violence 88
Model 2: Victimization of Physical Violence 96
Model 3: Psychological Perpetrated Violence 100
Model 4: Psychological Victimization of Violence 106

V DISCUSSIONS AND CONCLUSIONS 109

Limitations 117
Conclusion 120

REFERENCES 124

APPENDICES 135

Appendix A- Informed Consent 135
Appendix B- Letter of Introduction 137
Appendix C- Survey Instrument 138
Appendix D- Descriptive Statistics and Frequencies 151
Appendix E- Frequencies of Violence 163
Appendix F- Cross-Tabulations 169
Appendix G- Correlation Matrix 176

LIST OF TABLES

Table		Page
1	Variable Listings and Measures for Independent Variables	58
2	Logistic Regression Analysis for Hypothesis One – Four	77
3	Logistic Regression Analysis for Hypothesis #5 Variables: Physical Perpetrated	79
4	Logistic Regression Analysis for Hypothesis #5 Variables: Physical Victimization	79
5	Regression Analysis for Hypothesis #6 Variables	81
6	Regression Analysis for Hypothesis #7 Variables (perpetrated)	83
7	Regression Analysis for Hypothesis #7 Variables (victimization)	83
8	Current Employment for Hypothesis #7	83
9	Current Employment by Gender and Perpetrated Violence for Hypothesis #7	83
10	Logistic Regression Analysis for Social Learning Model	86
11	Binomial Logistical Regression Analysis of Physical Perpetration of Violence	94
12	Gender and Athletic Affiliation	95
13	Gender and Perpetration of Physical Violence	96
14	Athletic Affiliation and Perpetration of Physical Violence	96
15	Gender, Athletic Affiliation, and Perpetration of Physical Violence	96
16	Binomial Logistical Regression Analysis of Physical Victimization of Violence	100
17	Binomial Logistical Regression Analysis of Psychological Perpetration of Violence	106
18	Binomial Logistical Regression Analysis of Psychological Victimization of Violence	108
19	Gender and Violence When 0= No Acts of Violence and 1= Any Self-reported Act of Violence	112
20	Gender and Partner Violence When 0= No Acts of Violence and 1= Any Self-reported Act of Violence	113
21	Self-report of “At Least” One Act of Victimization of Violence and Response to if One Self-Reports as a Victim of Violence	117
22	College Credits	118
23	Age	118
24	Cronbach’s Alpha Reliability Analysis for Differential Reinforcement Variables	119
25	Internal Consistency Reliability for CTS2 Subscales	123
D1	Descriptive Statistics: Demographic & Other Variables	151
D2	Frequency Table	151
D3	Descriptive Statistics: Physical and Psychological Violence	155
D4	Cross-Tabulations: Perpetrated Violence with Gender	155
D5	Cross-Tabulations: Perpetrated Violence Severity with Gender	155
D6	Frequency Table: Severity of Physical violence	155
D7	Frequency Table: Self-reported Use	156
D8	Frequency Table: Partner’s Use	158
D9	Descriptive Statistics: Demographic and Other Variables	162
E1	Frequency Table: Where Did Violence Occur?	163

E2 Frequency Table: Physical Violence (Perpetrated and Victimization) 163
F1 Cross-Tabulations: Perpetrated Violence with Gender and Twenty-four Life Changing Events 169

LIST OF FIGURES

Figure Page

1 Hypotheses one – four for dependent variables physical and psychological violence 62

2 Hypothesis seven for dependent variables (physical and psychological violence) 64

3 Integrated theoretical design for models one – four 93

CHAPTER I

INTRODUCTION

Since the early 1980s, researchers have generated an expansive volume of studies on domestic and intimate partner violence. Stemming from the work of Koss (Koss, 1992; Koss & Dinero, 1989; Koss & Gaines, 1993; Koss, Gidycz, & Wisniewski, 1987) and DeKeseredy (DeKeseredy, 2000; DeKeseredy & Kelly, 1995; DeKeseredy & Schwartz, 1998; DeKeseredy, Schwartz, & Alvi, 2000; DeKeseredy, Schwartz, Fagen, & Hall, 2006), an area of inquiry termed *"male peer support theory"* (DeKeseredy, 1990, p. 130; DeKeseredy & Schwartz, 1998, p. 99) is one "**theoretical strand"** that grounds intimate male-on-female violence in society's patriarchal culture and structure. Specifically, the focus is on the male-on-female violence which occurs in dating settings on university and college campuses. Here, "male power values and norms" are expressed and supported within fraternities and athletic teams, resulting in aggression and violence against women of college age (Crossett, Benedict, & McDonald, 1995; Crosset, Ptacke, McDonald, & Benedict, 1996; DeKeserdy & Schwartz, 1998).

The second **theoretical strand** to emerge is intergenerational transmission theory, as developed in surveys on domestic violence research in Straus, Gelles, and Steinmetz, 1980 (Straus, 2004; Straus & Gelles, 1988; Straus & Kantor, 1994; Straus & Savage, 2005)(see also: Kwong, Bartholomew, Henderson, & Trinke, 2003; Mihalic & Elliott, 1997; O'Leary, Malone, & Tyree, 1994). The experience of an adolescent witnessing domestic violence within the home is hypothesized as the basis for children becoming either perpetrators or victims of violence in adult intimate relationships. The mechanism for this "violence transmission" is the imitation of aggression and/or the lack of

reinforcements and discipline by parents teaching non-aggressive activities (Straus & Savage, 2005, p. 132-134).

One problem with the collective body of studies on intimate partner research is the examination of only one aspect of violence. Predominantly in society, and in much feminist theoretical work, men are the aggressors while women are the victims of violence. Furthermore, the failure to acknowledge the variable of gender creates a void in the research by failing to study the effects of women as aggressors of violence (Heise, 1998). For example, a study conducted by Arriaga and Foshee (2004) examined attitudes and behavior of parents to address why individuals perpetrate violence. The focus was male-to-female violence. Another study conducted by Ahmad, Riaz, Barata, and Stewart (2004) explored only why immigrant women allowed themselves to become victims of intimate partner violence. Again, this research only considered male-perpetrated violence. One essential problem emerges without gender neutrality in intimate partner research; "the feminist emphasis on male dominance and gender hierarchy fails to explain why some men beat and rape women when others do not; even though all men are exposed to cultural messages that posit male superiority" (Heise, 1998, p. 263). A need for a gender-neutral assessment of intimate partner violence is essential for filling the current void in the literature and understanding "why" partners become violent.

Theoretical Overview

The proposed research parallels the most recent work of Christine Sellers (2005, 2003) in two significant ways. First, a review of the literature has led the author to document the lack of development of sound theory to emerge from male support and

intergenerational transmission theories[1]. This flaw is produced in literature substantiated by male support theory because it excuses female aggression as a response to violence (See DeKeseredy & Schwartz, 1998). Male support theory fails to address any additional explanation for female-perpetrated violence other than self-defense. Second, communication and consultation with Dr. Christine Sellers[2] has supported the goal to test a more gender-neutral and *integrated* theoretical model of intimate partner violence grounded in **social learning theory**.

Social learning theory predicts prevalence rates of partner aggression will be higher for those "who have witnessed others they admire using aggression against a partner" (Sellers, Cochran, & Branch, 2005, p. 383). Social learning theory also predicts those who hold definitions approving violence, who associate with perpetrators of violence, and who anticipate rewards (getting one's way) with fewer costs will also have higher prevalence rates of partner aggression (Sellers et al., 2005). Sellers' research deduces that social learning theory encompasses a variety of additional theories (patriarchal, male-support, intergenerational theory) associated with intimate partner violence (Sellers et al., 2005). However, very little research (see Akers 1998; Boeringer, Shehan, & Akers, 1991; Sellers et al., 2005; Sellers, Cochran, & Winfree, 2003) has directly tested social learning theory and intimate partner violence (Sellers et al., 2005). This research, although limited, has provided statistical evidence that some, if not all four components of social learning theory, most notably differential association and differential reinforcement, are "significant predictors" of intimate violence (Sellers et al., 2005).

[1] Bell, Keith. "Overview of Dissertation Proposal on Intimate Partner Violence." Presentation to Dr. David Myers, IUP Criminology Doctoral Coordinator, Feb. 13th, 2006.
[2] Personal Communication with Christine Sellers, ACJS Conference, Baltimore, March 12th, 2006.

Sellers and her colleagues (Sellers et al, 2003), address the need to incorporate additional variables from related theoretical fields, such as Hagan's power-control theory. The additional testing of theories closely associated with social learning, such as power-control theory, offers the first real step toward theory integration in intimate partner research. Resent literature has supported this integration of social learning theory and power-control theory. Edin, Lalos, Hogber, and Dahlgren (2008) interviewed professionals working in batterer intervention programs. One characteristic of batterers in the study was strain produced from struggles over power and control within the relationship. "The respondents suggested when the traditional male role is counteracted, it may also lead to conflicts and violence because the demands for equality put strains on the relationship." (Edin et al., 2008, p. 235). These strains possibly can create confusion for both the perpetrator and the victim, or more importantly, for men and women (Edin et al., 2008). This description corresponds precisely with the core beliefs of power-control theory and the perception that violence is the consequence of power struggles within a relationship.

Many studies have found a correlation between gender, learned behavior, and power-control variables and the acceptance of violence by gender in relationships. A study conducted by Mahlstedt and Welsh (2005) found six reoccurring themes for violence. These included power, gender socialization, relationship length, communication, alcohol, and personal reasons. The most frequent causal factor was power. Power and gender socialization explained 34% of the variance, communication 20%, and alcohol 12% (Mahlstedt & Welsh, 2005). Similar studies have concluded power and control variables account for a large portion of the explained variance. These

variables include jealousy, controlling behaviors, humiliation, and threats (See Gage & Hutchinson, 2006; Hadjar, Baier, Boehnke, & Hagan; Harper & Voigt, 2007; Miller, 2006; Raynor, Riow, Cantin, Drouin, & Dube, 2004).

To further illustrate the importance of power and resources in intimate relationships, Kaura and Allen (2004) found power dissatisfaction affected both males' and females' use of violence in the relationship (Kaura & Allen, 2004). Furthermore, DeMaris (1987) stated, "a more critical factor than the absolute level of resources possessed by the couple is the balance of resources between the husband and wife" (DeMaris, 1987, p. 292). This imbalance of power has been studied over the years (see Hagan et al.,1987; Hagan, 1988; Hornung et al., 1981; Kalmuss & Straus 1982; Straus 2004) and has been associated with higher levels of female victimization in a relationship.

An area of interest, and an addition to the current research, is the incorporation of power-control variables with a more "contemporary" adaptation. The addition of power-control variables, such as socio-economic status and power values (who should hold the power in a relationship) can enhance intimate partner research. One flaw of power-control research is that the same standard variables have been applied over the years without the testing of new operational variables. The addition of more contemporary measures of power, such as attractiveness of partner and decision-making in a dating relationship (see revised Blood & Wolfe scale, 1960), may allow for greater explanatory power in understanding the causes of violence in intimate relationships. The patriarchal society has seen a power shift in recent decades to a more egalitarian model. This may explain why more modern variables of power and control are needed. Controlling

behaviors of the past, such as forcing a partner to make dinner or take care of the children, may not be as "fundamental" in current relationships. However, little or no attention is given to more current measures of power-control; and more importantly, the lack of variables other than the "standard variables" (SES and family income) has led to a possible decrease in the interest of power-control variables in relation to intimate partner violence.

The development of a model integrating power-control and social learning theory variables is a new direction for understanding the causes of intimate partner violence. The addition of power to the model may provide a better explanation as to why most social learning research finds differential association and differential reinforcement are the "only" significant precursors to intimate partner violence. A combination of social learning and power-control variables may provide a greater explanation for the relationship between physical violence and the independent variables for this study. Furthermore, an integrated model may provide explanatory power for "why" some individuals become violent, while others do not, when exposed to similar cultural environments. That is, this research provides support for the relationship between intimate partner violence, social learning, and improved tests of power-control variables.

The Proposed Study

The research expands on Sellers and her colleagues' 2003 and 2005 research on social learning theory and intimate violence abuse on campus with the addition of power-control variables in intimate partner relationships. These variables will be examined in Chapter Two and Chapter Three. Chapter Two presents a literature review summarizing the key theories related to intimate partner violence. This includes a summary of male-

support theory, intergenerational transmission theory, power-control theory, and social learning theory. The literature review summarizes the "learning" of violence in peer and parental settings and the recent attempts to capture the prevalence of violence on college campuses. Chapter Three presents the methods for data collection, as well as the research questions and hypotheses for the current research. Chapter Four provides detailed analysis of the recorded data for this research. Chapter Five provides a discussion of relevant inquiries for future research, as well as limitations for this research.

CHAPTER II

REVIEW OF THE LITERATURE

The term intimate partner violence has been associated with domestic, courtship, marital, and relationship violence. In order to fully understand the phenomena of intimate partner violence, it is essential to review the literature in these areas and to examine theories associated with both intimate partner violence perpetration and victimization. This review will provide a critique of the current theories, the importance of recent research in the field, and a decision of intimate partner violence risk factors. Finally, to illustrate the focus of the proposed research, Sellers (2005; 2003) and colleagues' work will be revisited.

Male-Support Theory in University Settings

Social science research about rape, sexual assault, and intimate partner violence can be attributed to researchers Mary Koss and Walter DeKeseredy. In the early 1980s, Mary Koss developed one of the first instruments designed to measure rape and rape myths. Her contribution to intimate violence research stems from her pioneering work in studying this violence in a college setting. Koss provided the foundation for many researchers to study sexual and violent victimization on college campuses. Her work includes areas related to sexual aggression and victimization, the incidence and prevalence of rape among university students, and studies in the area of family violence and sexual experiences among students (Bletzer & Koss, 2006; Hopkins & Koss, 2005; Ullam, Karabatsos, & Koss, 1999; Yuan, Koss, Polacca, & Goldman, 2006; Koss, 2005; Koss, 1992; Koss & Dinero, 1989; Koss et al., 1987).

Koss' work fueled Walter DeKeseredy's research on the abuse of women on Canadian college campuses. DeKeseredy, along with Martin Schwartz, published *Women Abuse on Campus: Results From the Canadian National Survey* in 1998. This first national study of Canadian college-aged women described the issue of abuse on campuses perpetrated by men and detailed a rationale for female dating victimization. The work of DeKeseredy brought attention to the epidemic of intimate partner abuse on college campuses (DeKeseredy & Kelly, 1993; DeKeseredy & Schwartz, 1998).

According to DeKeseredy and Schwartz, the failure to recognize intimate partner violence as a serious societal and college problem was attributable to societal patriarchal belief systems. DeKeseredy et al. (1998) developed "male peer support" theory to link society's institutionalized beliefs about male power to intimate partner abuse. While patriarchal beliefs may not characterize all male groups, the concept is based on the notion of male economic dominance and familial structure (DeKeseredy & Schwartz, 1998). Male-support theory states these patriarchal beliefs influence male perceptions of dominance and power while reinforcing the view of women's roles as submissive in a male-dominated society (DeKeseredy & Schwartz, 1998).

DeKeseredy and colleagues focus on male social networks as a possible variable associated with intimate violence on college campuses, including rape and abuse. When considering college campuses, fraternities and athletic organizations are the two prevailing social networks. Within these networks, sexual assaults of dating partners and women who are defined as the "teasers" or "easy" are downplayed and even accepted. This acceptance is due largely to the learned behaviors among men and their passage from one group to another (DeKeseredy & Schwartz, 1998). These groups create a male-

peer support "society" that fosters beliefs that legitimize the perpetration of sexual and violent assaults on women (DeKeseredy et al., 2006). It appears the feminist ideals associated with male-support theory have underlying tones of social learning theory. These groups, such as fraternities and athletics, communicate these beliefs from one group to another. As new group members emerge, they are indoctrinated to these patriarchal beliefs and learn these actions to be acceptable forms of behavior. This association among college fraternities and athletics closely resembles the differential association and definitional reinforcement principles of social learning theory.

Two questions arise from these findings: (1) If these beliefs can perpetrate sexual assaults and rape, is it not plausible they also support power struggles within intimate relationships in the form of psychological and physical abuse? and (2) If these beliefs are learned through close male social networks, such as Greek fraternities and athletic organizations, then are DeKeseredy and colleagues implying variables from social learning theory (i.e., differential association and reinforcement)? Although DeKeseredy and Kelly (1995) find support for negative peer behavior such as physical aggression for predicting sexual violence, DeKeseredy does not apply social learning theory in his work[3]. He addresses the fact that "one major difficulty for the campus-based pro-feminist is that many men come to campus with women abuse attitudes already strongly in place" (DeKeseredy et al., 2000, p. 925). He contends that "Masculinity production begins at a very early age" (DeKeseredy et al., 2000, p. 925) and supports this notion with Messerschmidt's (2000) study of cruelty in culture and the importance of male violence

[3] The author found no evidence in DeKeseredy literature supporting a direct link between social learning theory and male-support theory DeKeseredy, 2000; (DeKeseredy & Kelly, 1993; DeKeseredy & Kelly, 1995; DeKeseredy & Schwartz, 1998; DeKeseredy et al., 2000).

beginning as early as interactions in primary school. He also suggests recent studies (Messerschmidt, 2000) show that good parenting may be the key to prevention of violence, and bad or abusive parenting could have an opposite effect (DeKeseredy, et al., 2000).

Preventive measures addressed by DeKeseredy, such as stronger parenting, may provide for a better understanding of why recent research examining intimate partner abuse and social learning theory has found the most significant correlation with the independent variables of differential association and reinforcement. If parenting is a "key in prevention of intimate violence," then it is plausible to assume the lack of parenting, or the lack of positive reinforcement by parents, may explain why recent research by Sellers and colleagues (2005, 2003) confirmed the strongest correlations are between the differential association and the differential reinforcement variable associated with costs values (the consequences of the action).[4]

Both DeKeseredy's and Sellers' research on intimate partner abuse has created the need for further investigation into the theories associated with intimate partner violence. DeKeseredy's research suggested patriarchal beliefs may not characterize all male groups, but the concept is based on the notion of male economic dominance and familial structure (DeKeseredy & Schwartz, 1998). This is similar to the power-control theory that recognizes there has been one fundamental theme throughout history. Men are typically the laborers, and women have taken care of the domestic labor. It is when a shift in duty occurs within a household that power and control variables become distorted.

[4] Sellers et al., (2003) found that the lower the perceived costs of the action the more likely the violence increased or was accepted. Perceived rewards (self-gratification or got what was desired) were not found to be a significant contributor to violence. 1 of 2 of the sub-categories of differential reinforcement were found to be significant.

This distortion, which may occur with economic dominance or familial structure (as noted in DeKeseredy), may explain why violence tendencies are developed and fostered within the family structure. These patriarchal beliefs and power-control concepts need to be addressed in relation to the learning (social learning theory) which occurs within families.

Power Control Theory

Power-control theory addresses gender, class, and the role of delinquency in a patriarchal setting. Original works of power and control theory, "explain variation in terms of (1) gender divisions in domestic social control and (2) the resulting attitudes toward risk taking" (Hagan et al., 1987; p. 788; Hagan & Kay, 1990). Therefore, much like the work of DeKeseredy, power-control theory begins with the assumption of a patriarchal society. However, it is the imbalance of power or shift in "duty" away from a patriarchal society to a more egalitarian society that characterizes a shift in criminal behavior (Hagan, 1988). More importantly, as the patriarchal views of the past are replaced with egalitarian perspectives, criminal patterns or delinquency should be equal between both genders as the struggle for dominance, control, and power with the social structure and family exists. This shift to equality of power may help in understanding why recent works such as Strauss (1980), Sellers (2003), and other using the Conflict Tactics Scale, have found increased female-perpetrated violence in intimate relationships.

Power-control theory suggests power shifts in the home will affect delinquency and as mothers gain more control in egalitarian households, daughters also will gain more control equal to or greater than that of their male siblings (Hagan et al., 1987; Hagan, 1988). "A key premise of the theory is positions of power in the workplace

are translated into power relations in the household and that the latter, in turn, influence the gender-determined control of adolescents" (Hagan et al., 1987, p. 812). There is a trend in gender-based violence and criminality identified in the literature during the past seven decades[5]. One predominant characteristic is the shift from patriarchal beliefs in the mid 1950s to a more egalitarian model over time (See Hadjar et al., 2007). This shift to a dual breadwinner model (Blossfeld, 1995) has dramatically affected the Hagan model of power-control suggesting daughters are the objects of familial control (Hagan, 1985), and has created new interest in power and control theory and violence. Testing these new power-control variables (such as attractiveness of partner) not only will fill a void which previous researchers have labeled a limitation, but also it is important for the overall test of social learning theory, gender, and intimate partner violence.

In research, power-control theory has been applied primarily to study two-parent household and the effects of power, control, and resources such as monetary worth, socio-economic status, and education, available in the two-parent system. Power-control theory variables have been scarcely tested with college-aged intimate partners. Where power-control variables have been included in a study (SES, income, resources), they are usually added as a control variable much like race, contributing little or no explanatory power. While "social class is a major determining factor of accomplishment in most educational and employment arenas and still one of the best indicators of who will achieve success" (Nesbit, 2006, p. 171), little or no in-depth research has been performed to evaluate the role that social class, resources, and control have on learning and forming

[5] Cohen (1955), Hirschi (1969), Hagan (1979), Chesney-Lind (1989), DeKeseredy & Schwartz (1993), Miller (2006)

roles and the definitions of responses to intimate partner violence as a child and adolescent.

A key variable not addressed in studies of socialization of children is the use of monetary power in a relationship. If one were to believe the core tenets of power-control theory, it is likely the idea of monetary contribution to the relationship (who makes the most money) may be a significant indicator of power in a relationship. However, "whether this affects college-aged men and women" is the question. If this struggle for monetary success is learned through a socialization process consistent with social learning theory, one could learn that money means power. If "these power dynamics become enacted at the interpersonal level, affecting the internalization of gendered values, expectations, and behaviors" (White & Kowalski, 1998, p. 210), then power and control may be shaped by monetary success and impact the prevalence of intimate violence in the relationship.

DeMaris (1987) found that, "three factors appear to be primary correlates of marital violence: the individual's social class, the relative resources of the partners, and the partners' respective experiences with abuse in the family of orientation" (p. 292). Summarizing two key studies, one by Ulbrich and Huber (1981) and another by Dibble and Straus (1980), DeMaris states, "respondent's reports of parental hitting varied inversely with respondent's income, and that total family income was inversely related to minor violence against a spouse" (p.292). More importantly DeMaris states, "a more critical factor than the absolute level of resources possessed by the couple is the balance of resources between the husband and wife" (DeMaris, 1987, p. 292). This imbalance of power has been studied over the years (see Hagan et al., 1987; Hagan, 1988; Hornung et

al., 1981; Kalmuss & Straus 1982; Straus 2004) and has been associated with higher levels of female victimization in a relationship. Harper and Voigt (2007) studied intimate partner homicides. The majority of the cases studied found one reoccurring theme, male perpetrators of intimate partner homicide were unemployed, and the female victims were successfully employed or wealthy (Harper & Voigt, 2007). A noticeable trend with imbalance of power in relationships, particularly female economic success, has been correlated with increased violence in intimate partner, domestic violence, and intimate partner homicides. This reoccurring theme in the literature merits further study.

To clarify, a woman with more resources or less resources than her husband or significant other has been prone to higher levels of victimization than a female in a relationship where the resources are equal across lines. Why? According to power-control and patriarchal beliefs, the male is more likely to over-compensate for his lack of resources by using threats and force (DeMaris, 1987; Hornung et al., 1981). These actions are accelerated in situations where the male partner possesses the most resources, as he uses these resources as his rationale for reinstating the power in the relationship (Hagan et al., 1987; Hagan, 1988). Therefore, to fully understand the explanatory value of the variable "resources," such as monetary worth, attractiveness, and education, with college-age intimate partners, additional power-control research is needed[6].

In addition to economic controls, jealously, humiliation, and forced decision-making continue as reoccurring themes in intimate partner research (See Edin et al., 2008; Gage & Hutchinson, 2006; Harper & Voigt, 2007; Miller, 2006). These controlling behaviors (selecting friends, destinations, hang-outs, how one spends free time) are

[6] The current study measures 1) attractiveness of the couple (either self, neutral, or partner) 2) Power using a revised Blood & Wolfe (1960) scale for intimate relationships (see Chapter III, Methods).

imposed on victims of intimate violence and have the strongest correlation with future violence and severity of violence (Miller, 2006). Controlling behaviors also have been associated with higher rates of physical and sexual aggression. (Rinfret-Raynor, Riou, Cantin, Drouin, and Dube, 2004). Controlling behaviors not only increased the incidents of physical aggression, but the prevalence of actions increased with controlling behaviors such as humiliation and jealously (Rinfret-Raynor et al., 2004). These controlling behaviors are present in additional research. The Duluth Model (Minnesota Power Control Wheel) is the most widely used tool for teaching domestic and intimate partner violence education. This model incorporates a cycle of violence that includes intimidation, isolation, emotional abuse, denial of blame, children as pawns, the male privilege, economic control, and threats (Dutton & Starzomski, 1997). All of these characteristics of battering are used to control the submissive partner through humiliation and intimidation. Is it plausible to assume that these controlling behaviors are learned, and thus subsumed, by the core ideas of social learning theory? Understanding "what" is learned may be just as important as the initial recognition that behaviors are learned.

Social Learning Theory

"Theories of criminal and deviant behavior attempt to answer the question of why social and legal norms are violated" (Akers, 2000, p.4). Ronald Akers developed two key theoretical questions that are interrelated. These are "Why are there variations in group rates of crime and deviance and why are some individuals more likely than others to commit criminal and deviant acts?" (Akers, 2000, p. 4). The importance of why some individuals are more likely than others to commit crime has been the focus of most social

learning research (e.g., juveniles and social class). Since social learning theory is the primary theory used for this study, it will be addressed in more depth.

The key elements of social learning theory draw from the work of Edwin Sutherland's differential association theory as well as other learning theories. These elements are the theory of differential association and the definitions favorable to law, as well as differential reinforcement and imitation that has evolved from learning theory (Akers, 1998; Sutherland, 1939). These four segments of social learning theory (differential association, differential reinforcement, imitation, and definitions) and the relationship of these elements to imitate partner violence will be discussed later.

Ronald Akers' social learning theory provides a theoretical basis for why criminals form criminal ideals. Akers, along with Albert Bandura, is credited with the development of the core tenets of the theory. Social learning theory addresses why criminal behavior is continually reinforced. It may be the personal beliefs held by an individual are criminal, or because beliefs reinforced by family and peers with whom the individual associates are criminal (Akers, 2000). This criminal behavior can be learned in various ways, but most of the empirical research finds criminal ideas are learned from parents, peers, and or a combination of parents and peers. It may even be the case that delinquent behaviors are learned from observing parental actions that are positively reinforced (Akers, 2000; Lauritsen, 1993; Simons, Wu, Rand, & Lorenz, 1994). These actions could be as minor as smoking or using foul language, but can also include witnessing violent actions such as psychologically and physically aggressive acts. These actions are then accelerated through peer interactions that youth and juveniles frequently encounter (Akers, 2000; Lauritsen, 1993; Simons et al., 1994). Juveniles who imitate

parental actions pass these actions onto the group with whom they associate. Based on these scenarios, it appears that witnessing abuse between parents or peers with no reprimanding behavior could allow for parental violence to be reinforced as an acceptable behavior with no ramifications. If parental violence is not learned as a punishable offense under criminal law, the act may be seen as an acceptable recourse for solving problems in relationships in early adolescence and adulthood.

Since the 1980s, social learning theory has been tested empirically on juveniles and adults in several areas, including substance and alcohol abuse, delinquency, smoking, general abuse, and aggression (Akers, 1998). Using Akers' criteria for testing a sound theory, social learning theory meets all five criteria and does exceptionally well when tested for empirical validity (Akers, 1998). For this study, social learning theory will be applied beyond the "typical" areas of drug abuse and juvenile related crimes to intimate partner abuse. Although the theory has not typically been applied to interpersonal violence, a review of literature shows a trend toward intersecting social learning theory with more violent crimes such as domestic and intimate partner abuse.

Explaining Social Learning Theory

The importance of social learning theory is supported by the ability of the theory to depict both conforming and deviant behavior. As stated by Akers (1998):

> The probability that persons will engage in criminal and deviant behavior is increased and the probability of their conforming to the norm is decreased when they differentially associate with others who commit criminal behavior and espouse definitions favorable to it, are relatively more exposed in-person or symbolically to salient criminal/deviant models, define it as desirable or justified in a situation discriminative for the behavior, and have received in the past and anticipate in the current or future situation relatively greater reward than punishment for the behavior (p. 50).

In summary, individuals who view behavior as favorable because of a lack of negative stimuli associated with the act, view or witness the act as being positively reinforced, or associate the act with normal peer or parental behavior, may perceive the act as being an acceptable remedy for an event. Therefore, the negative event, for example witnessing parental domestic abuse with no negative stimuli associated with the event, may permit an individual to view this behavior as acceptable. Furthermore, it shapes his or her beliefs about abuse in relationships as a normal course of action for stressful situations.

It can also be assumed conforming behavior can be increased as well. If the variables associated with conforming behavior are more positively increased, then the behaviors associated with deviant behavior should be decreased (Akers, 1998). Therefore, in the same scenario of parental domestic assault, if the police are called by the mother or even a neighbor and the officers arrest the father for spousal abuse, it should be assumed that the behaviors associated with abuse will be depicted as negative. Further, this will allow children who witnessed the abuse and its consequences to view violence against another as negative, thus instilling a more conforming approach to law-abiding practices.

Akers alludes to the fact that individuals can be both conforming and deviant by the ideals that are reinforced. He clarifies that there are four key hypotheses associated with an individual being deviant as opposed to conforming to the norms of society:

1) When persons differentially associate with those who expose them to deviant patterns.
2) When the deviant behavior is differentially reinforced over conforming behavior.
3) When individuals are more exposed to deviant than conforming models.
4) When their own definitions favorably dispose them to commit deviant acts (Akers & Sellers, 2004, p. 109).

Social learning theory accounts for individuals becoming prone to deviance just as it accounts for individuals conforming to society. It allows for an understanding for the changes in individual behavior, and is influenced directly by the individuals' history in learning situations of criminal behavior (Akers, 1998). "Deviant and criminal behavior is learned and modified through all of the same cognitive behavioral mechanisms as conforming behavior" (Akers, 1998, p. 51). Social learning theory supports those variables that motivate both conformity and criminality, and also controls for those variables associated with conformity and criminality (Akers, 1998). Therefore, the theory provides for an explanation that some theories lack, an ability to explain why some become criminal while others do not. For individuals where abuse is reinforced, these individuals will be more likely to exhibit aggressive tendencies and abuse in intimate relationships.

Differential Association

The first element of social learning theory, differential association, was originally introduced by Edwin Sutherland (1939). It is based on the premise that intimate groups are significant in shaping and forming the behaviors of an individual. These groups can include family, friends (peers), and groups such as school and recreational groups with whom one associates (Akers, 1998; Sutherland, 1973[7]). Differential association draws a correlation between learning delinquent acts and later perpetrating deviant behavior. The earliest of these "associates" is the family of origin and the family becomes the chief early socializer as it becomes the basis for instilling rewards and punishments and teaching models of right and wrong (Akers, 1998). It could be assumed that at this stage,

[7] Sutherland (1973). "Susceptibility and differential association." In K. Schuessler, ed, *Edwin H. Sutherland on Analyzing Crime, 42-43*. Chicago: University of Chicago Press.

a lack of appropriate teaching by the family may explain why some individuals view physical violence as an acceptable behavior in a relationship. If the family is the first group to associate with the individual, and violence and aggression are reinforced in this setting through spousal abuse, dating violence, spanking, hitting, or other forms of corporal punishments, then violence may appear to be an acceptable outlet for anger, frustration, or stressful situations.

It is also important to address the role peers play in learning violence. As one enters early childhood and begins pre-school, socialization with peers begins. This initial socialization can impact the formation of ethical behaviors. Behaviors learned from playing and attending school together can be positive, such as sharing, or these behaviors can be negative, such as aggressiveness and bullying. The reality that parents cannot always be present during the time frame bridging youth and early adulthood provides for the inference friends and classmates may be instrumental in affecting one's socialization process.

Differential Reinforcement

"Whether individuals will refrain from or commit a crime at any given time (and whether they will continue or desist from doing so in the future) depends on the past, present, and anticipated future rewards and punishments for their actions" (Akers & Sellers, 2004, p. 87). The amount of reward that is associated with a given act weighed against the possible punishments that follow the act is the underlying component of differential reinforcement (Akers, 2000; Akers & Sellers, 2004). Differential reinforcement can be broken down into a simple cost benefit analysis, where the behavior that gives the most reward and receives the least negative feedback will be reinforced or

perceived to be the most valuable behavior. Therefore, if an individual witnessed violence in family relations or peer relationships and acted these perceptions out in his own relationships with no negative consequences, the behavior may be weighed as a possible reward for stressful situations. If the perpetrator of violence continued to get his way in a relationship by threatening or using violence, differential reinforcement would assume the individual would use violence as a means to obtaining an end because he has witnessed it and used it in his own life with minimal or no punishments and multiple rewards.

Definitions

These same behaviors, if defined as positive or negative actions, can drastically affect how an individual weighs his or her importance. That an action is condemned by society does not mean a rational being will refrain from using the action if the rewards outweigh the punishments and if the act is neutralized as "justifiable" (Akers, 2000). Therefore, with the given scenario of dating or domestic violence, an individual may know the definitions associated with dating violence are condemned by an institution, a community, and even law, but he may neutralize the aggression because in his mind, the woman brought it upon herself, deserved the abuse, or "needed to be put in her place." This acceptance of behavior is why even rational beings can be introduced to negative definitions in relation to societal norms and still act in a manner that does not coincide with those same norms of society.

Imitation

Imitation and modeling are most important for initially learning a behavior. The continued use of the behavior is not directly affected as much by the initial modeling or

imitation phase (Akers, 1998). Imitation is, according to Akers, "committing behavior modeled on, and following the observation of, similar behavior in others" (Akers, 1998, p. 75). In a study of young children, Bandura and colleagues found imitation to be a strong indicator of future violence. Viewing acts of violence in person and viewing acts of violence on a television screen resulted in children learning new ways to aggress. It also decreased their inhibitions to violence previously not taught compared to a control group (Bandura, 1973). This initial test of learning theory by Bandura is a hallmark in creating the driving interest in social learning theory in the decades following the research. Several articles to date have alluded to the fact that imitation is an initial learning tool (see Khan & Cangemi, 2001; Monroe, 2004; Sellers et al., 2005) and should be considered a plausible means for addressing right from wrong. Just as differential association and reinforcement were depicted as being possible indicators of future violence, imitation and repeating the acts of violence witnessed at a young age by parents, peers, and family members may also explain the acceptance of future violence within dating relationships.

Social learning theory "is a testable theory that is supported by the preponderance of empirical evidence and has stood up well to major logical and methodological critiques" (Akers, 1998, p. 107). The theory assumes individuals are rational beings who will weigh risks and rewards of an action based on previous reinforcement or stimuli presented in a learning environment. If beating a woman was viewed in childhood as an acceptable outlet for a given situation, no punishment was given to the perpetrator of violence, and the victim did not escape from the violence, a child growing up and reaching dating age may assume this behavior is acceptable. Once he or she acts in this

manner and there is no punishment for the act, the risks for continuing the act do not outweigh the rewards for the given action. Reinforcing a behavior that is already deemed acceptable from past experiences will only allow the learning associated with violence to further be supported and continued.

Witnessing Abuse

Over the last twenty years, researchers have been debating causes of violence in youth and adults. One theory that has been applied to the study of dating violence is social learning theory. Several researchers have linked the viewing of violent acts by children to the acceptance of violent acts while approaching adulthood (Feerick & Haugaard, 1999; Koverola & Heger, 2003; Mihalic & Elliott, 1997; Reitzel-Jaffe & Wolfe, 2001; Simons, Lin, & Gordon, 1998).

Recent research has supported a social learning theory, producing studies that show the witnessing of violence in a relationship as a child can have lasting effects on children later in adulthood. McCloskey and Lichter (2003) found that "children of battered women are more aggressive than other children, although the extent of the aggression as they grow older is unknown" (p. 391). Other research has depicted problematic abuse of drugs and alcohol, mental health problems, post-traumatic stress disorder, sexual disorders, anxiety, and many other problems associated with witnessing abuse during childhood development (Saunders, 2003). All of the above mentioned health problems and disorders have been found to be risk markers or indicators of potential violence or criminal behavior.

Social learning theory has been subjected to hundreds of empirical tests, primarily on general delinquency (Sellers et al., 2003; See Akers, 1998). The core of the theoretical

testing is conducted in the area of witnessing violence in the home. Children may become exposed to violence from domestic arguments by parents, guardians, siblings, family members, and family friends. The effects of witnessing violence, or other acts criticized by society, have been studied several times over many disciplines (See Akers, 1989; DiBlasio and Benda, 1990; Lanza-Kaduce and Klug, 1986; Skinner and Fream, 1997; Sellers et al., 2003), using different theories, to conclude the effects of witnessing these acts.

The extent of witnessing these events is another important area of study. Research has found that witnessing one serious traumatic event usually means a respondent has witnessed other acts of violence in his/her life (Saunders, 2003). In a recent sample, 40-80% of children who reported witnessing domestic violence as a child also reported witnessing at least one other type of violence in the home (Saunders, 2003). Also, of the children who reported witnessing or experiencing events such as physical and sexual assault, or abuse by a parent, 50% also witnessed domestic violence in their own home (Saunders, 2003). This could explain that violence may begin in the home and escalate further by witnessing peers and loved ones commit violence. The question remains whether this act would be carried over, or imitated, into the observer's personal life in dating relationships.

Mihalic and Elliott (1997), using the premise that, "during childhood…, observations of how parents and significant others behave in intimate relationships provide an initial learning of behavioral alternatives which are appropriate for these relationships" (p.21), paneled 1,725 youths using the National Youth Survey (NYS). Following the initial research in 1976, the respondents were interviewed every year for

the first five years, and in three-year increments until 1992. The research concluded witnessing violence "was an important learning mechanism among males, with direct paths to marital violence offending and victimization" (Mihalic & Elliott, 1997, p. 42). One of the strongest predictors of violence, especially among girls, was witnessing parental violence. These findings and other similar findings led the researchers to conclude "social learning remains a viable explanation with marital violence" (Mihalic & Elliott, 1997, p. 44). The importance of this research develops a need for social learning to be further tested, especially across gender, to understand the full impact of witnessing marital violence as a child.

Carr and VanDeusen (2002) using several scales[8] found "only one independent variable, witnessing interparental violence, contributed significantly to the prediction of perpetration of physical violence on a date" (p.639). This is important because the Carr and VanDuesen study found that even witnessing mild violence affected future dating violence and the modeling that occurs between parents and children "may be learned and later used with intimate partners" (Carr & VanDeusen, 2002, p. 641). Another important policy implication that arises from this study is that over one fourth of the male respondent's witnessed some form of intimate violence between their parents growing up. If witnessing inter-parental violence is a risk factor for future intimate partner violence, with such a large percentage of the current sample population having been exposed to violence, then the imitation and reinforcement of these values may explain why intimate partner violence is an increasing phenomenon.

[8] Scales used by Carr and Vandeusen: Sexual Belief Scale, Interpersonal Violence Against Women Scale, Rape Myth Scale, Conflict Tactics Scale, Sexual Experiences Survey, and Hostility Toward Women Scale.

These findings are consistent with Arriaga and Foshee (2004) who found individuals with violent parents who were violent toward one another had an increased likelihood of perpetrating violence. This is also consistent with Rivera and Widom's (1990) research on childhood victimization using a control group of non-abused/neglected children and a group of abused/neglected children. Applying chi-square and other statistical tests, the "abused/neglected group had significantly higher frequencies of violent offending as opposed to the non-abused group" (Rivera & Widom, 1990, p. 23). This research is significant in documenting the relationship between being a victim and witnessing abuse as a child and being responsible for more violence later in life.

The concept of witnessing parental abuse later affecting intimate partner violence is a trend found throughout violence literature. Lackey (2003) contends that not only witnessing parental violence as a child is important to later perpetrating violence, but also those adolescents more frequently exposed are likely to assault their partners. Using data from the National Youth Survey, Lackey (2003) found increased violence in adolescence was significantly correlated with partner violence later in life, and "men who are victimized by their parents suffer significantly weaker commitments to their partner and work during adulthood" (p.92).

The afore mentioned studies apply social learning theory and variables associated with social learning theory to explain the increased violence and witnessing of or being a victim of violence. This research supports social learning theory's four components of differential association, differential reinforcement, imitation, and definitions favorable to law. Other research using data collected from two national samples found that offenders

and victims of domestic violence have higher rates of violent crime outside the family. The victims also had higher rates of violence against parents (see Cottrell & Monk, 2004), siblings, and the community. There was also a correlation between being a victim or witnessing violence and increased property crime and police involvement (Hotaling, Straus, & Linoln, 1988, as cited in Mihalic & Elliott, 1997). Not surprisingly, the respondents who witnessed violence between parents or were from violent families had the highest rates of outside-the-family violence (Hotaling et al., 1988, as cited in Mihalic & Elliott, 1997). In addition, the association between witnessing and learning violence within the home appears to hold some weight for increased violence outside the home. The literature has supported the trend that witnessing interparental violence increases the likelihood of perpetrating not only intimate partner violence but also violence outside of the home. Therefore, it can be hypothesized that witnessing parental violence is a risk factor for future violence, including intimate partner violence.

Predictors of Intimate Partner Abuse

There are numerous risk factors or predictors of intimate partner violence. Research about sexual and physical assaults when dating began in the early 1950s (see Kirkpatrick & Kanin, 1957), and carried over to the 1970s and 1980s in frequency (see Kanin & Parcell, 1977; Koss & Dinero, 1989). Risk factors such as power differential in a relationship, alcohol and drug use, and miscommunication (feelings of being led on), were common problems in most first-time dating scenarios (Muehlenhard & Linton, 1987). However, more recently, additional risk factors have appeared in the literature concerning intimate partner violence and dating.

One predictor of intimate partner violence in college settings can easily be linked to violence in adolescent and high school settings. O'Keefe (1997) researched 959 high school-aged students (age 14-20) and found that 43% of girls and 39% of boys reported inflicting physical aggression upon a partner. This early warning sign with teenagers is the first predictor of future intimate partner violence. The study found the two most common reasons for perpetrating violence by boys were anger and control and for girls, anger and self-defense. Jealousy over the actions of a partner was third for both boys and girls. Both boys and girls who reported using violence were more likely to report being the recipient of violence (O'Keefe, 1997). This argument coincides with the general findings of the Conflict tactics scale (CTS) and Conflict tactics scale 2 (CTS2) that find a strong correlation between being a victim of intimate partner violence and perpetrating violence (see Straus 1979; Straus & Gelles, 1988; Straus et al., 1980; Straus et al., 1996; Straus & Savage, 2005). This study is very important to intimate partner violence research and social learning research because if these acts are reinforced in high school as being acceptable forms to release anger or control jealous urges, then these same actions could be carried over to college life and adulthood.

Once again, a preponderance of the research has concluded a key risk factor for intimate partner violence is the witnessing of violence in the home. Reitzel-Jaffe and Wolfe (2001) found abusive parents, negative gender beliefs, and peer associations were significant risk factors for future intimate violence. Related to the factor of social learning theory, differential association, Reitzel-Jaffe and Wolfe (2001) found that "the relationship between participants' negative beliefs and the abusive behavior of their best friends was one of the strongest paths in the analysis" (p. 109). The conclusion that peers

play an important role in predicting future intimate partner abuse coincides with O'Keefe's (1997) findings above and directly supports the social learning hypothesis that those with whom one associates can affect his/her views of right and wrong.

Intimate partner research has found several other risk factors that predict future perpetration and victimization with regard to violence. Mahlstedt and Welsh (2005) found communication, alcohol, and gender socialization (male power) to be factors of violence. Power was particularly important as a cause for physical abuse in relationships (Mahlstedt & Welsh, 2005). Chen and White (2004) found that lack of education or lower education predicts female perpetration and "lower education, problem drinking, and childhood parental beating predicted female victimization of violence" (p. 1283). For male youth, parental fighting predicted male perpetration, and there were no common factors for male victimization (Chen & White, 2004). Once again, common themes are found throughout the literature, such as parental fighting and abuse, but more importantly for this research, less education was found to be significant for female perpetration and victimization of violence (See Harper & Voigt, 2007).

Trends with Intimate Partner Abuse

A recurring theme in violence literature is the correlation between perpetrating violence and the independent variables gender, and length of the relationship (Bethke & DeJoy, 1993). Research conducted by Riggs (1993) found 10% of men and 15% of women reported the man was the sole aggressor of violence compared to 26% of men and 30% of women who reported the woman as the sole aggressor in the relationship (Riggs, 1993). This is extremely important to social learning theorists and those who apply the Conflict Tactics Scale (CTS) for measuring intimate partner violence. A frequent critique

of the CTS, especially by those who support the male-support theory for violence, is that the CTS only measures violence and does not take into consideration reasons such as self-defense for clarification of why violence occurred. Bethke and DeJoy's (1993) research indicates that "female aggression," or perpetration of violence, may not be taken as seriously as male perpetration of violence and this may be a reason why, in some studies not using the CTS, results of female aggression are exaggerated.

Another trend with intimate partner violence is most physical violence is mild in nature (Perry & Fromuth, 2005). Most often, serious physical injury, such as being taken to the hospital, broken bones, and blood loss, is not highly reported. Perpetrated physical violence also is rarely ever reported as often as psychological abuse. Perry and Fromuth (2005) found that 16% of men and 14% of women reported perpetrating psychological abuse, numbers that change to 2% and 4% respectively for physical abuse. A discussion of these trends with domestic and intimate partner violence is important for future research. What is needed is a better understanding of a "possible" correlation between the two in association with intimate partner violence.

Perhaps an even more prevailing trend regarding intimate partner violence on campus is the attention athletic programs have received in the past decade around violence against women. Crosset et al. (1995, 1996) studied the overlapping nature of sexual assault and physical battery against women by male athletes on Division One campuses. The conclusion of the 1996 research indicated that, in comparison to the average male student population, male student athletes accounted for a greater percentage of the domestic and sexual violence reported on campuses. These findings concur with the results of Crossett et al. (1995) which found student athletes were over-represented in

complaints filed with campus police and judicial affairs offices. This trend in aggression and violence by male college athletes is explained by male-support theory and the differential association involved with "learning" from one's peers. If aggression and violence are fostered in athletic settings, these findings should be noticeable in the current research. The current proposed research asks survey items identifying respondents as athletes and other members of social groups (Greek memberships).

Intergenerational Transmission Theory

Intergenerational transmission theory is accepted as a causal explanation for much of the violence from parental to adolescent life (Chapple, 2003). According to intergenerational transmission theory, children who witness violence, acquire, model, and imitate these actions and become violent in later adult dating situations (Chapple, 2003). Intergenerational transmission theory and social learning theory theoretically have crossed paths in research on juvenile crime, intimate partner abuse, and even the idea that criminal parents will have criminal children. Many researchers (see Mihalic & Elliott, 1997; O'Keefe, 1998; Widom, 1989) have used intergenerational transmission theory to explain the link between violent and or criminal parents and the actions of their children. However, an obvious conclusion of intergeneration transmission theory is that social learning theory encompasses the key theoretical elements (Sellers et al., 2005). The modeling, or imitation, of parents is one of the four components of social learning theory. The reinforcement involved with parenting is another aspect of social learning theory that subsumed intergeneration transmission theory.

Conflict Tactics-Intergenerational Transmission Theory

Intergenerational transmission theory originated with Straus, Gelles, and Steinmentz (1980) and hypothesized that witnessing parental violence leads to future violence in children (Sellers et al., 2005). Although this research, and previous researchers (see Sellers et al., 2005; Sellers et al., 2003;), have noticed the obvious similarities between intergenerational transmission theory and social learning theory, the Conflict Tactics Scale (discussed thoroughly in Chapter III) was developed in order to research "learned" intimate partner violence and has been used as a test of social learning theory (Sellers et al., 2005; Sellers et al., 2003; Straus & Savage, 2005),

As early as 1987, the CTS was characterized as "the most comprehensive index on the frequency and form of tactics that one may use when resolving a conflict"(Stets & Pirog-Good, 1987, p. 240). The CTS is still one of the most widely used measures for intimate partner abuse. The CTS measures "both the extent to which partners in dating…relationships engage in psychological and physical attacks on each other and also the use of reasoning or negotiation to deal with conflicts" (Straus et al., 1996, p. 283). To date, the most frequent use of the CTS is to measure physical assaults against intimate partners (Straus et al., 1996).

One of the more recent attempts at using the CTS to study violence in dating relationships was conducted by Straus and Savage (2005). This research titled,"*Neglectful behavior by parents in the life history of university students in seventeen countries and its relation to violence against dating partners,"* studied 6,900 students in seventeen countries and found over 12% had experienced some form of neglect from a parent/s (Straus & Savage, 2005). These findings are important because

previous research has found children tend to use aggression to achieve desired objectives (See Tremblay, 2003). Children also use aggression to "remove noxious conditions and achieve goals such as possession of a toy" (Straus & Savage, 2005, p. 133) and neglecting to discipline children leads to a negative reinforcement of aggressive acts. This is essential to social learning research because it is apparent parental guidelines and discipline may affect how a child's behavior is reinforced (Straus & Savage, 2005). By disciplining children, the parents are more likely to reinforce a behavior as wrong and allow the children to "learn" non-aggressive tendencies. This connection between parental neglect and partner violence is magnified in the Straus and Savage's (2005) findings:

1) The more neglectful behavior the students in this study experienced as a child, the more likely they were to engage in violence against a dating partner.
2) In social contexts where neglect is prevalent, there is a closer link between experiencing neglect and violence against a dating partner than in social contexts where fewer children have been neglected. (p.131)

This study supports previous research involving learning abusive tendencies as a child and perpetrating violence as an adult. It is especially important because it is one of the few studies that show a correlation between learned violence and future perpetration of violence **with college-aged individuals** as the sample population. It is also valuable because the use of the CTS was proven to be a valid and reliable measure for intimate partner abuse worldwide on college campuses.

Social Learning on Campus (Christine Sellers)

Sellers and colleagues 2003 study[9] was the first to study intimate partner violence on campus using social learning theory as the theoretical model. The dependent variable

[9] Sellers et al (2005) was a "research note" and revisited Social Learning Theory and Courtship Violence: An Empirical Test article by Sellers, Cochran, & Winfree (2003).

for the research was self-reported violence against a partner gathered from the use of Straus' (1979) Conflict Tactics Scale. The independent variables were drawn from Ronald Akers' social learning theory. The four constructs of social learning theory: differential association, differential reinforcement, imitation, and definitions were measured using a series of indices and scales. Imitation was measured using an index of admired models the respondent had witnessed engaging in abuse (hitting, punching, slapping) in an argument. These admired models included television personalities, parents, siblings, peers, and other known people.

Differential reinforcement was measured recording respondent's reactions to four "anticipated" rewards. Second, a three-point ordinal measure was used to gather the respondent's perception of the outcome of using violence. Third, a rewards and costs analysis was conducted asking respondents his/her perceptions of the eight rewards and eight costs associated with aggression (Sellers et al., 2005). Finally, "respondent's perceived certainty and severity of formal criminal justice responses to intimacy violence" was measured (Sellers et al., 2005, p. 386).

Definitions were recorded using three additive scales measuring respondent's attitudes toward law, approving definitions or partner violence, and neutralizing definitions associated with partner violence. Differential reinforcement was measured using 1) parents' and best friend's attitudes toward intimate violence, 2) the proportion of friends who have used violence against a partner, and 3) how often their parents and best friend had used violence against an intimate partner (Sellers et al., 2005; Sellers et al., 2003).

The results of the study were promising in that "three of the four measures of differential reinforcement and two of the three measures of differential association were positively and significantly associated with partner violence" (Sellers et al., 2005, p. 389). Both the imitation index and the definitional variables were not found to be significantly associated with partner violence (Sellers et al., 2005).

The significance of the findings related to differential reinforcement is promising for social learning theory research with violent crime. "The odds of partner violence increased with the anticipation of social or non-social reinforcement" (Sellers et al., 2005, p. 389). This means that with every one-unit increase in rewards and costs associated with partner violence, the odds of partner violence increased 10%. "For each one-unit increase in the level of approval for intimacy violence from one's significant others, the likelihood of partner violence increased by 7%" (Sellers et al., 2005, p. 389). Additionally, the same trend was found with the overall outcomes associated with partner violence, with each one-unit increased of outcomes increasing violence by 70% (Sellers et al., 2005). Similar results were found for the differential association variables.

Sellers' research opened the door for the current research to retest the variables associated with social learning to further explain their power when studying intimate partner violence. Particular attention is paid to the variable of imitation to elaborate on Sellers' and colleagues work and the integrated model of the current study. If intergenerational transmission theory has the greatest explanatory power for intimate partner violence**,** one would believe the variable of imitation would be most strongly correlated with intimate partner violence. Sellers recent work has produced minimal support for imitation. The failure of male-support theory to explain the levels of female-

perpetrated violence and the lack of imitation variables to validate intergenerational transmission theory initiates social learning theory in becoming a more "satisfying theoretical account" (Seller et al., 2005, p. 390) of intimate partner violence.

The most important finding of Sellers et al. (2003) is female- perpetrated violence in association with intimate partner violence. The gender-neutral focus of social learning theory has garnered increased support in recent years. This is in contrast to male-support theory and intergenerational transmission theory, which are more straightforward and gender-weighted, where males are highly likely to be the perpetrators of violence. Sellers et al. (2003) "findings are not exclusive to males"(Sellers et al., 2005, p. 389), but rather men and women are equally responsible for intimate partner violence.

Current Approach

Sellers claims, "It is thus important that further research on the role of gender in social learning theory include measures of variation in power, opportunity, and resources" (2003, p. 124). Further testing is needed in the area of social learning theory, power-control theory, and gender in relation to intimate partner violence. Using an identical dependent variable (measured by the CTS2) and similar independent variables as Sellers et al. (2005) (with the addition of power-control variables), the current research focuses on correlations among physical and psychological abuse and ten independent variables. Specific attention is paid to gender, adding it to the typically gender-neutral theory of social learning theory. The addition of variables that focus on the respondent's power and control (attractiveness, Blood & Wolfe revised scale 1960), address the limitations of the most recent intimate partner research using social learning theory (See Sellers et al., 2005; 2003)

The study tests seven hypotheses which draw from the literature of social learning, power-control, substance abuse, and physical and psychological abuse. Following the testing of these hypotheses, ten independent variables are analyzed with the dependent variables physical and psychological perpetration/victimization of violence. The independent variables include "gender", "age", "Greek membership", athletic affiliation", "differential association", "differential reinforcement", "imitation", "definitions", and two measures of "power-control theory" (see Table 1, p. 58). The use of binary logistic regression as a method of analysis provides for statistical support of the effect of each independent variable has on the dependent variables (See Models 1-4 in Chapter Four).

This study addresses the need for theory integration and also elaborates on the traditional beliefs of Hagan, DeMaris, and other control theorists, with the addition of twenty-four variables used to measure stressful events occurring in the respondents' lives during the past year. These twenty-four variables (broke up with a partner, studied abroad, fired from a job, and became pregnant etc.) all could contribute to stressful situations in dating relationships. In a recent study of batterer intervention programs, the overwhelming cause for perpetrated violence for men was the difficulty in seeking change in the relationship (power-control) and negative exposures to father figures in the past (social learning theory) (Edin et al., 2008). The addition of these variables may provide a better explanation of stress, and possible changes in the composition of power and control in a relationship.

The current approach attempts to support previous attempts using social learning theory to explain intimate partner violence. Measures of power-control are included in

the study to develop possible alternative explanations of perpetration/victimization of physical and psychological abuse in intimate partner violence. However, it is believed that variables associated with social learning theory will provide more explanatory power in the dependent variables. Most notably, differential association has produced the strongest correlation between the measures of social learning theory and physical perpetration of intimate partner violence (See Sellers et al., 2003). The current approach uses the measures of social learning theory, but expands on previous research with the addition of measures related to power-control, and the use of both physical and psychological violence as dependent variables.

CHAPTER III

METHODOLOGY

This study addresses the importance of advancing a theory-based research initiative in the field of intimate partner and domestic violence. The research design of the study incorporates the Conflict Tactics Scale of Murray Straus with a social learning and a power-control model that hypothesizes a theoretical link between intimate partner violence, the four components of social learning theory, and variables associated with power-control theory. Two important focal concerns are: 1) the degree of difference between men and women who perpetrate violence and are victims of violence, and 2) the degree to which intimate violence is learned from family, peers, and role models. The study investigates the degree to which intimate partner violence is a serious issue on a moderate-sized university campus.

The study uses "intimate violence" as the dependent variable, and social learning and power-control theory variables as the independent variables. With the exception of Sellers et al. (2005; 2003), most research on interpersonal violence using social learning theory[10] was conducted on less violent, and most often, victimless crimes. The current study elaborates on the need for further research using social learning theory to understand more violent crime, such as intimate partner violence. A self-constructed item of power and a revised version of the Blood & Wolfe (1960) Scale were used to study power-control variables and enhance the degree of understanding regarding violence in dating relationships.

This study identifies the age group in which perpetrator violence occurs most

[10] Limited research has been conducted using social learning to study violent crimes.

often by college class level (freshman – senior), the severity and incidence of the violence (psychological/physical), and the extent to which social learning and/or power-control variables explain interpersonal violence in dating relationships. The primary tool for measuring the dependent variable is the revised Conflict Tactics Scale and was administered to students measuring the "total" acts of violence perpetrated and the total acts experienced as a victim of violence. By order of administration, two subscales pertaining to the independent variables were administered. First, a subscale including the four components of social learning theory (Differential Association, Differential Reinforcement, Definitions, and Imitation) was administered. The second, in order of administration, was a subscale including power and control survey items. Although elements of power-control theory may be closely related to social learning theory, it is important to measure items pertaining to both theories to determine if one theory has more explanatory power regarding interpersonal violence.

The incidence, prevalence, and severity of crime by university students are relatively low in comparison to other populations. However, in the area of partner abuse, the rates of occurrence are much higher among university students (Straus & Ramirez, 2004). Much of the current literature supports rates reported by the Bureau of Justice Statistics[11] and also shows an increase in dating partner violence in 2003 among college-aged individuals, and a gradual decline following that year (see Rennison, 2003; Catalano, 2006). A more in-depth theoretical model may explain why the rates of intimate partner violence increase with college-aged individuals and why these students

[11] Women age 20-24 and men age 20-24 are the age group at the greatest risk for nonfatal intimate partner violence and all college students are less likely to report victimization to police (Data obtained from BJS reports, Rennison 2003, Catalano, 2006).

are less likely to report the violence. Is college a learning environment that reinforces violence in peer groups? Or, is it more complex? This study will address these above questions and the effects that the independent variables have on inmate partner violence.

Research Questions

The model is guided by these research questions:

(1) Does witnessing parental abuse as a child increase the likelihood of perpetrating violence in college?

(2) Does witnessing peer abuse in relationships increase the likelihood of perpetrating violence in college?

(3) Does witnessing parental abuse as a child increase the likelihood of becoming a victim of intimate partner violence in college?

(4) Does witnessing peer abuse in relationships increase the likelihood of becoming a victim of intimate partner violence in college?

(5) Do resources, such as money, education, or socio-economic status, attractiveness, and decision-making, have an effect on intimate violence?

(6) Is verbal/psychological abuse as prevalent as physical abuse in dating?

(7) What role does alcohol play in dating?

(8) Does perpetrated physical and psychological violence vary by gender?

(9) What policies can be derived from this research?

Intimate partner violence, much like domestic violence, is predominantly a "behind closed doors" phenomenon occurring in private nearly three-fourths of the time (Makepeace, 1981; Sugarman & Hotaling, 1989), and usually on weekends and most often in a dwelling of either the victim or perpetrator of the violence (Sugarman & Hotaling, 1989). Much of the available literature supports (Carr & VandDeusen, 2002; Straus & Savage, 2005) the notion that if "violence occurs once in a dating relationship, it

is likely to occur again" (Sugarman & Hotaling, 1989 p.11).[12] Although the number of incidents of violence will likely occur again, as severity of violence increases, the number of acts of violence decreases (Perry & Fromuth, 2005). There is a need for a survey instrument that accurately measures a behavior that is difficult to detect or witness because of the intimacy and private nature of the violence. Many of the current intimate violence research studies (see Cogan, & Ballinger, 2006 Hendy et al., 2003; Houry, Feldhaus, Peery, Abbot, Lowenstein, Albatta-de-montero, & Levin, 2004; 2004; Nguyen, 2006; Sellers et al., 2003), including the National Violence Against Women Survey (see Tjaden & Thoennes, 2000), use Straus' Conflict Tactics Scale or CTS2. The CTS2 is unique because it fills "this need." The CTS2 has allowed researchers to quantitatively study events which had often been ignored culturally (Langhinrichsen-Rohling, 2005) and typically had been studied qualitatively.

The Conflict Tactics Scale is currently one of the most widely used instruments in research relating to family violence (Straus & Douglas, 2004,). The formulation of the CTS has allowed for comparisons across samples and studies. It has brought attention to intimate partner violence, and it has depicted female perpetration of violence at rates equal to or greater than their male counterparts (Langhinrichsen-Rohling, 2005). The efficiency of the CTS in studying intimate partner violence, the fact that the instrument is a valid and reliable measure for intimate violence, and its success in studying college-age populations, are the reasons for choosing a model of the CTS for the current research.

Conflict Tactics Scale

The Conflict Tactics Scale (CTS) is designed to measure psychological and physical violence within dating, cohabitating, or marital relationships (Straus, 1979;

[12] On average, 6.9 assaults occurred in a relationship from the same partner (Carr & VanDeusen, 2002).

1996). The CTS measures both the extent and the reasoning for the violence within the relationship (Straus, 1996). The published literature employing a model of the CTS is voluminous, and includes both the original and revised versions of the CTS (see DeMaris, 1987; Pan, Neidig, & O'Leary, 1994; Riggs 1993; Sellers et al., 2005; Sellers et al., 2003; Straus 1996;). More importantly, it has been proven to be a valid and reliable measure for studying violence in intimate settings (mean alpha level .77) (Setts & Pirog-good, 1987; Straus, 2004; Straus, 2007).

Severity level. One significant component of the CTS can be found in its ability to record severity of violence. The severity of violence is an important measure because most research finds individuals who are likely to "kick" or "punch" are also likely to "slap" and "shove" (Straus & Douglas, 2004). It should be assumed that individuals who are likely to "punch" and "kick" are also likely to "bite", "spit", "throw things", and otherwise commit levels of violence that range from no violence or moderate violence (slap or shove) to severe physical violence (punch or cause bodily injury). The CTS2 uses separate subscales for measuring the severity level within intimate relationships. Physical assault, psychological aggression, and injury all measure the severity of the violence in terms of no violence, minor, and severe violence. The close proximity of "levels of violence" is measured using three mutually exclusive categories (no violence, minor, and severe violence) to avoid the overlap that may occur with conceptualizing the term "severity" of violence.

Criticism. The Conflict Tactics Scale, while still one of the most widely used tools for studying intimate partner violence, is not without critics. DeKeseredy & Schwartz, (1998) have noted CTS data fail to reflect the fundamental concerns with

domestic violence relationships, such as severity and psychological violence, and overstate the amount of violence perpetrated by females. Researchers have argued that comparisons across gender are biased because of the types of activities or the age in which the activities for men and women occur (McHugh, Koeske, & Frieze, 1986). How can one compare career decisions and parenting styles between mothers and fathers if they become involved at different ages or in different ways (McHugh et al., 1986)? These same issues arise for the CTS and CTS2. Does the control for age (e.g. 18-24 year olds) limit the current study if women learn to become violent differently or at a different age than men? A viable measure of "age on onset" is a limitation for CTS/CTS2 data.

Elaborating on DeKeseredy and Schwartz' (1998) view, could the CTS2 be biased in relation to gender as well? It is important to address that there is no control for self-defense with the CTS or CTS2. The CTS and CTS2 simply measure "acts of violence" and do not follow up with "why" the violence began. The current study controls for this limitation. The survey item "If you have ever used physical actions against your partner, did your partner use such physical actions against you first", is asked of respondents following the CTS portion of the survey. This item should provide a less biased examination of gender and initial perpetration of violence for the current study (See Chapter Four for analysis).

The main critique of the Conflict Tactics Scale is its inability to control for unequal levels of female-perpetrated violence (Hines & Saudino, 2003, Straus et al., 1996). Therefore, opponents of the CTS argue the survey's ability to find equal rates of perpetrated violence by men and women fail to address underlying characteristics such as the nature of the violence (such as self defense). Hines and Saudino (2003) summarize:

> 1) The CTS does not consider the context and consequences of the aggression (e.g., women are more likely to be physically injured by men than men are by women).
> 2) Not enough physically aggressive acts are included, thus reducing the validity and reliability of the results.
> 3) Sexual aggression is not addressed, and men are much more likely to perpetrate sexual aggression in a relationship than are women.
> 4) Respondents are not asked about their motivations for aggressive acts, which can be important because female's aggression may be only in self-defense.
> 5) The CTS limits the context of the violence to the everyday settings in which it occurs: The wider historical context and background both of the relationship of men and women in general, along with the social, cultural, and universal laws of societies in general, need to be examined. (p. 197-198).

The use of modified Conflict Tactic Scales has produced similar results over time. Research projects have concluded physical aggression (male and female) should be broken into categories of severe and mild aggression (Hines & Saudino, 2003; Pan et al., 1994). Research has also concluded psychological aggression is correlated with mild physical aggression. Therefore, research is needed to determine the extent to which each form of aggression is used in intimate relationships. This illustrates a need for more research concerning the relationship between physical and psychological aggression. The most alarming finding from the modified CTS appears to be a higher percentage of females perpetrating severe violence in intimate relationships. A significantly higher percentage of men reported being the victim of severe violence by a female partner (Hines & Saudino, 2003). The apparent imprecision of these measures leaves researchers puzzled regarding the cause of such findings. Is the embarrassment experienced by female victims a factor in their failure to report violence, or are men reporting biased figures (Hines & Saudino, 2003)?

The exploration of the effectiveness of the Conflict Tactics Scale has allowed for a modern version of the CTS, the CTS2, to be devised. Much like the original CTS, the CTS2 measures psychological and physical violence, partner violence in dating and

cohabiting relationships, and has provided for additional items to be added that address the issues of validity and reliability (Straus, 2007; Straus et al., 1996) stemming from the original 1979 model. It has addressed the need for a better explanation between severe and mild violence. It has also added a subscale focusing on sexual coercion, and allowed for a new format to increase response rates (Straus et al., 1996).[13]

Straus and colleagues revised the scale to include other variables such as sexual aggression and injury (Hines & Saudino, 2003). Several research studies have used what is referred to as a modified or revised version of the 1979 original CTS design (Hines and Saudino, 2003; Pan et al., 1994; Riggs, 1993). Although these are modified versions of the original scale, for purposes of studying aggression within intimate relationships, the CTS is still widely regarded as the most effective tool for measuring violence (Barling, O'Leary, Jouriles, Vivian, & MacEwen, 1987; Caulfield & Riggs, 1992; Riggs, 1993).

The ability of the CTS2 to address a pair of theories illustrates the versatility of the scale. Although the author concludes that the main theoretical grounding of the scale is conflict theory, several areas of the scale adequately address social learning theory as well (Straus et al., 1996). The scale uses perpetrated violence within the family to address the importance of witnessing and viewing the hitting of family members as an acceptable behavior (Straus, 2004). The data from Straus's 2004 study of college students found that dating violence and being hit or spanked frequently as a child did correlate positively with the increased frequency of being a perpetrator of violence (Straus, 2004). These results coincide with research illustrating a correlation between witnessing violence and/

[13] The CTS2 added the subscales "negotiation" and "sexual assault". It was also modernized to reduce response time and make the survey more user friendly. It was modified after several critiques of the scale, addressing limitations 1, 2, & 3 above. Limitation 4 has not been fully met. Limitation 5 can be addressed using additional theories such as social learning theory or male support theory.

or being a victim of parental violence as a child and becoming a perpetrator of violence later in life. These additions to the CTS2 have addressed the majority of the concerns discussed above. One area in which the CTS2 remains weak is in not allowing respondents to explain why they carried out the act of violence, leaving the door open for some researchers to argue female perpetration of violence may actually be in response to fear and possible self-defense (see DeKeseredy & Schwartz, 1998).

Survey Instrument

"The Conflict Tactics Scale is the most widely used instrument in research on family violence" (Straus & Douglas, 2004, p. 507). The revised version of the CTS, the CTS2, has five subscales, which are usually administered to participants in a research setting. These subscales are negotiation, physical assault, psychological aggression, injury from assault, and sexual coercion (Straus & Douglas, 2004). For the purpose of this research, all five subscales of the CTS2 are used. However, the physical and psychological subscales are of particular attention.

Most often, research performed in the area of intimate violence focuses on hitting, slapping, punching, and acts conceptualized as physical violence. However, research in the field of partner abuse has demonstrated that verbal abuse, also known as psychological abuse, may have an equal or greater impact than physical abuse on the victim (Langhinrichsen-Rohling, 2005; O'Leary, 1994). Therefore, the ability to measure psychological abuse, as well as physical abuse, using the CTS2 should allow for a more thorough measure of violence in intimate relationships. The CTS2 will permit for a more thorough understanding of psychological abuse. Also, the CTS2 will provide a better understanding of the physical nature of the abuse (i.e., severity) by asking respondents

items pertaining to their perpetration of violence, both physically and psychologically, and also violent acts committed against them by a spouse or partner.[14]

Dependent Variable: Intimate Partner Violence

The CTS2 measures an individual's perceptions of violence in an intimate relationship and also uses that individual's perception of his/her partner's violence as well. This distinction between reporting and not reporting violence was measured using the eight-point scale devised by Straus (0=never, 1= once, 2= twice, 3= three to five times, 4= six to ten times, 5= eleven to twenty times, 6= more than twenty times, 7= yes but not in the last year). The dependent variable makes a distinction between those who perpetrate an act of violence and those who report never perpetrating violence (see Sellers et al., 2003). The most recent research literature using the CTS and social learning theory (see Sellers et al. 2005; Sellers et al., 2003) collapsed the above responses and coded the measures as 0= never and 1= those who did report violence due to a low response rate for acts of violence perpetrated. Due to the possible loss of explanatory power that could occur from collapsing these measures, the current study uses the original seven-point scale questionnaire items. The CTS2 provides for a measure of the number of incidents of throwing, kicking, pushing, grapping, shoving, slapping, biting, hitting, beating up, and the use or threat of use of a weapon such as a knife or gun against a partner or having been the victim of such an act (Sellers et al., 2003; Straus, 2004). The skewed data has made it necessary to collapse the dependent variable into a dichotomous variable (0= no acts, 1= any act of violence). This has been the trend with previous research using the CTS (See Sellers et al., 2003).

[14] Internal Consistency Reliability for CTS2 scales – Physical assault (alpha=.86), Psychological aggression (alpha .79).

Independent Variables: Social Learning and Power-control
(see Table 1, pg. 58, more detailed summary of the measurement for each independent variable)

Building from the study conducted by Sellers et al. in 2003, this research uses the original survey items constructed by Sellers et al. (2003) because they have been found to be a valid and reliable measure for intimate partner and dating violence using social learning theory. Therefore, these measures were not seriously altered. Four independent variables were utilized in addressing social learning theory as developed by Ronald Akers. These four variables are differential association, differential reinforcement, imitation, and definitions toward intimate partner violence and law-abiding practices. These items were empirically tested by Sellers et al. (2005; 2003). Initially, differential association was measured with a four-point ordinal scale asking

"About how many of your closest friends have ever had the following things happen in a disagreement with a spouse or partner?"
(List scenarios)

0 None or almost none **1** less than half **2** More than half **3** All or almost all

Secondly, a three-item scale of attitudes pertaining to the degree of approval or disapproval of the use of violence in a relationship asked respondent's friends, mother, and father, the following question.

Please indicate the extent to which you believe your "X" would approve or disapprove of the following things a partner might do to the other in a disagreement:
(List scenarios)

1 Strongly Approve **2** Approve **3** Disapprove **4** Strongly Disapprove **5** No Mother/Stepmother

Finally, an item addressing how frequently a respondent's friend, mother, or father used violence measured differential association by asking,

How often has each of the following individuals used verbal tactics (such as swearing, yelling, insulting, etc.) against a spouse or partner in a disagreement? How often has each of the following individuals used physical actions (such as hitting, slapping, kicking, punching, etc.) against a spouse or partner in a disagreement?

Used Verbal Tactics	**Used Physical Actions**
Never Seldom Usually Always	Never Seldom Usually Always

89.) Father or Stepfather	0	1	2	3	0	1	2	3
90.) Mother of Stepmother	0	1	2	3	0	1	2	3
91.) Siblings	0	1	2	3	0	1	2	3
92.) Other family members	0	1	2	3	0	1	2	3
93.) Best friends	0	1	2	3	0	1	2	3

How often have each of the following individuals been subjected to verbal tactics (such as swearing, yelling, insulting, etc.) used by a spouse or partner in a disagreement? How often have each of the following individuals been subjected to physical actions (such as hitting, slapping, kicking, punching, etc.) used by a spouse or partner in a disagreement?

	Used Verbal Tactics				Used Physical Actions			
	Never	Seldom	Usually	Always	Never	Seldom	Usually	Always
94.) Father or Stepfather	0	1	2	3	0	1	2	3
95.) Mother of Stepmother	0	1	2	3	0	1	2	3
96.) Siblings	0	1	2	3	0	1	2	3
97.) Other family members	0	1	2	3	0	1	2	3
98.) Best friends	0	1	2	3	0	1	2	3

Differential reinforcement used a sixteen-item index to measure the costs and rewards associated with the social learning and intimate partner violence. Items such as a rewarding feeling, respect, if one would get arrested, or if one's friends would criticize him or her, were some of the items addressed. The respondents answered one of the two indexes (ever used violence or never used violence) in relation to costs and rewards of the actions in order to determine if differential reinforcement (the positive outcome versus the negative consequences) is an important factor in perpetrating intimate partner violence.

Reinforcement Index.
For identification purposes those items measuring "costs" have been highlighted red on this page and those measuring "rewards" are black. They did not appear color coded on the survey instrument.

If you have never used physical actions (such as hitting, kicking, slapping, punching etc.) against a spouse or partner in a disagreement, which of the following things do you think would happen as a result of such action? CHECK ALL THAT APPLY

____It would give me a satisfying or rewarding feeling.

____It would make my relationship even more stressful.

____My friends would criticize me.
____It would make me feel more masculine or tough.

____It would end the argument.

____I would get arrested.

____It would get my partner off my back.

____It would make me feel out of control.

____I would feel ashamed.

____I would feel powerful.

____My friends would respect me more.

____It would make the argument worse.

____I would feel more in control.

____My family would criticize me.

____I would feel guilty.

____My partner would respect me more.

If you have <u>ever</u> used physical actions (such as hitting, kicking, slapping, punching, etc.) against a spouse or partner in a disagreement, which of the following things <u>have happened</u> as a result of such action? <u>CHECK ALL THAT APPLY:</u>

____It gave me a satisfying or rewarding feeling.

____It made my relationship even more stressful.

____My friends criticized me.

____It made me feel more masculine or tough.

____It ended the argument.

____I got arrested.

____It got my partner off my back.

____It made me feel out of control.

____I felt ashamed.

____I felt powerful.

____My friends respected me more.

____It made the argument worse.

____I felt more in control.

____My family criticized me.

____I felt guilty.

___My partner respected me more.

A second item used to measure differential reinforcement asked respondents to give reactions of their partner, friends, parents, and other relatives in relation to physical violence (ever used and never used) against a partner using five possible outcomes;

If you have ever used physical actions against a spouse or partner in a disagreement: What has been the reaction of each of the following after you have used physical actions against a partner?

5 Approved and encouraged it 4 Neither approve nor disapprove
3 Disapprove but do nothing 2 Disapprove and try to stop it
1 Disapprove and report to authorities

112.) Spouse/partner	**5**	**4**	**3**	**2**	**1**
113.) Friends	**5**	**4**	**3**	**2**	**1**
114.) Parents	**5**	**4**	**3**	**2**	**1**
115.) Other relatives	**5**	**4**	**3**	**2**	**1**

The third measure asked the respondent for the result when physical actions have been used against a partner;

A.) What has been the usual result after you have used physical actions against a partner? **OR:** **B.) What do you think would be the usual result if you were to use such physical actions against a partner.**

1 mainly good outcomes 2 about as much good as bad 3 mainly bad outcomes

Imitation used the same seven-item scale derived from Sellers et al. (2003) and respondents "indicated whether or not they had actually seen any of the following admired role models use physical actions against a partner 1) "father or stepfather" 2) "mother or stepmother" 3) "siblings" 4) "other relatives" 5) "friends" 6) "actors, TV/movies"7) "others" (p.116).

Have you ever actually seen any of the following things happen with anyone whom you admire during a disagreement with their spouse or partner?

CHECK ALL THAT APPLY:

	Not Seen	Actors TV/movies	Father or stepfather	Mother or stepmother	Siblings	Other relatives	Friends	Other
52.) They used verbal tactics (swearing, yelling, etc.)								
53.) They use physical actions (hitting, slapping, etc.)								

54.) They were subjected to verbal tactics.
55.) They were subjected to physical actions

Imitation has been predominantly a difficult variable to measure in relation to intimate partner violence. Imitation has been a strong predictor of drug use and youth deviance (see Akers, 1989). However, in the most noteworthy test of social learning theory, imitation was not a significant predictor of intimate partner violence (Sellers et al. 2005). For this research, the use of Sellers' imitation scale was used to assess if imitation is useful in explaining intimate partner violence. It should be noted that it is possible that imitation is being subsumed by the other independent variables, such as differential association (imitation of peers), so statistical tests will be utilized to determine if these items are measuring the same concept (See Chapter Four).

Much like imitation, the valid and reliable measures used by Sellers et al. (2003) were used for definitions favorable to law and intimate partner violence. A Likert-scale addressing eight survey items was used where "1=strongly agree" and "4= strongly disagree". The eight items can be found on the survey instrument. These items measured the respondent's opinion of law-abiding practices and attitudes toward breaking the law (in bold below). Five items were also added illustrating force used in a relationship to avoid the respondent recognizing a pattern (attitudes toward laws) in the survey items.

Circle the appropriate number to indicate the extent to which you agree of disagree with each of the following statements: (Items will not appear bold on the final survey)

1 Strongly Agree **2** Agree **3** Disagree **4** Strongly Disagree

16.) Often when I'm angry I feel more like hurting people than talking to them about why I'm angry: **1 2 3 4**

17.) I lose my temper pretty easily: **1 2 3 4**

18). **Laws against the use of physical violence, even**

in intimate relationships, should be obeyed:	**1 2 3 4**
19.) When I have a serious disagreement with someone it's hard for me to talk calmly without getting upset:	**1 2 3 4**
20.) It's is against the law for a man to use violence against a woman, even if they are in an intimate relationship:	**1 2 3 4**
21.) Yelling and swearing is justified in some situations in dating relationships:	**1 2 3 4**
22.) We all have a moral duty to abide by the law:	**1 2 3 4**
23.) It is against the law for a woman to use violence against a man, even if they are in a intimate relationship:	**1 2 3 4**
24.) Physical violence is part of a normal dating relationship:	**1 2 3 4**
25.) I believe victims provoke physical violence	**1 2 3 4**
26.) It's OK to break the law if we do not agree with it:	**1 2 3 4**
27.) In dating relationships, physical abuse is never justified:	**1 2 3 4**
28.) When I'm really angry, other people better stay away from me:	**1 2 3 4**

Power-control variables were added to the research in order to address the limitations as discussed above (see Sellers et al., 2005). This scale included survey items associated with power, control, and overall personal attractiveness. Often, respondents' resources, SES, and power and/or control measures in a relationship are used simply as control variables and lack any explanatory power. In this study, individual resources of the respondent measured by education, monetary wealth, and attractiveness (see DeMaris, 1987) for both the respondent and the partner were used to measure power.

176) In your current relationship a neutral 3rd party would rate
1) my partner better looking than me 2) me better looking than my partner
3) equal in attractiveness 4) I am currently not dating

Power-control variables are incorporated because "research on the influence strategies used in intimate relationships has supported the position that power inequalities, not gender, have an important impact on how women and men try to

influence their partner"(Frieze & McHugh, 1996, p. 452). Understanding who makes the decisions in a relationship may explain the degree to which one uses violence in the same relationship. For the current research, the measures of power-control in decision-making were analyzed using an updated version of Blood and Wolfe's (1960) scale.

Blood and Wolfe used the original *Allocation of Power in Decision-Making Arenas Scale* to measure the decision-making powers with married couples. The subscale used eight items deemed as important decisions which would represent the larger sample of married couples. The survey generated responses related to the decision realms of husband's employment, car, life insurance, vacation, home, wife's employment, family physician, and weekly allocation of money. The eight items were measured by determining "who" within the marriage made the final decision. The choices included, "husband always", "husband more than wife", "husband and wife exactly the same", "wife more than husband", and "wife always" (Blood & Wolfe, 1960). The results indicated husbands had slightly more power in decision-making in marriages, but the division of power between the two was not strong enough to support a model of patriarchal marriage (Blood & Wolfe, 1960).

Based on Blood and Wolfe's 1960 subscale, more research is needed on power in intimate relationships. The current research has adapted the scale to fit what the researcher would refer to as "important decisions in dating relationships". These decisions include "where to vacation", "where to eat", "what we do for entertainment", "how I spend my free time", "where I work", "choice of friends", "what I wear", "and how often we have sex" (See below). Once again, similar to the Blood and Wolfe scale, the current approach measured decision-making using as response categories "my partner

always", "my partner more than me", "my partner and I equally", "myself more than my partner", and "myself always". It is hypothesized that relationship power will be correlated with perpetration/victimization in regard to psychological and physical aggression in intimate relationships.

177.) From the following questions, we would like to determine the decision making process in your current relationship. Please check only one box that indicates the primary method of decision making in your relationship.

	178.) Where we vacation	179.)Where we eat	180.) What we do for entertainment (movies, etc)	181.) How I spend my free time	182.) Where I work	183.)Choice of friends	184.) What I wear	185.) How often we have sex
My partner always								
My partner more than me								
My partner and I equally decide								
Myself more than my partner								
Myself always								

Table 1

Variable Listings & Measures for Independent Variables

Independent Variables	Description	Page
Social Learning Theory - *Differential Association* Frequency, durations, & associations with individuals (peers, family, partner) who "engage" in partner violence will increase the likelihood of perpetrating or becoming the victim of intimate partner violence	- Ordinal- How many of your closest friends have committed act 0=none, 4= almost all or all - Ordinal- Extent to which you believe mother, father, best friend, would approve of IPV1= strongly approve, 4= strongly disapprove - Ordinal- How often have the following (mother, father, friends, siblings, others) used "verbal" actions 0= never 3= always - Ordinal- How often have the following (mother, father, friends, siblings, others) used "physical" actions 0= never 3= always	50 50 51 51
- *Differential Reinforcement* The viewing of IPV as rewarding with limited costs will increase the perpetration of violence. Costs = arrest, negative peer support…. Rewards = argument ended, got one's way….	- Additive Index (8 items) anticipated benefits (rewards) of the action. (8 items) anticipated costs of IPV. *	52
▫ Reaction of partner, friends, parents	- Ordinal-What has been the reaction of the following individuals when you have used IPV against a partner. (partner, friends, parents) 1= disapprove and report to authorities, 5= approve and encourage it.	52
▫ Perceptions of the outcome of IPV	- Ordinal- Perception of the outcome of violence… 1= mainly good, 2= about as much good as bad outcomes, 3= mainly bad outcomes	53
- *Imitation* The imitation of significant others such as roles models, parents, peers, and television personalities. Earliest form of learning as children will learn to imitate acts of those around them.	- Additive Index (7 items) Have you ever <u>actually seen</u> any of the following things happen with anyone whom you admire during a disagreement with their spouse or partner? (not seen, seen TV/actors, father, mother, siblings, other relatives, friends, other)	54
- *Definitions* One's attitudes toward law abiding practices and criminal behavior (Should you follow the law or can you break it?)	- Likert scale (8 items) - It's is against the law for a man to use violence against a woman, even if they are in an intimate relationship: 1= Strongly agree, 4= Strongly disagree (7 remaining items can be found on page 55)	55
*** To compute rewards to cost ration, rewards (+8) were added to costs (-8) (Sellers, 2005)**		

- *Power-Control* - GPA, education, monetary wealth, and a "modern" variable of attractiveness of one's partner will measure power. The domination of the relationship based on education, income, attractiveness, and potential success. - The "perceived balance" with decision making in a relationship. This can involve purchases, personal time, extracurricular activities, living arrangements, and friends.	- Current employment (categorical) - Your expected income 5 years after graduation (ordinal) - Primary source of income (categorical) - SES (ordinal) - Revised control scale of Blood and Wolfe (1960) pertaining to dating decisions and control. - Attractiveness	See Appd. B See pages 55-57
- Gender - Greek Affiliation - Athletic Affiliation - Age - Religion	- 1= male, 2 = female - 0= not a member, 1= member - 0 not affiliated, 1= affiliated - Number of years - 0= no religion, 1= roman catholic, 2= Baptist, 3= Methodist, 4= Jewish, 5= Episcopalian, 6= Other	

(For Demographical variables, see page one of Appendix B)
(Dependent variable (perpetrated violence and victim of violence is measured by the CTS2))

Hypotheses

H_a (1): Individuals who witness spousal abuse will more frequently perpetrate intimate partner violence.
H_a (2): Individuals who witness spousal abuse will more frequently become a victim of intimate partner violence.
H_a (3): Individuals who witness abuse in peer dating relationships will more frequently perpetrate violence in intimate relationships.
H_a (4): Individuals who witness abuse in peer dating relationships will more frequently become a victim of intimate partner violence.

Hypotheses One through Four focus on the relationship between physical and psychological violence and the three variables of differential association. These variables include: (1) How many of your closest friends have committed an act of violence (2) Extent to which you believe mother, father, best friend, would approve of violence (3) How often have the following (mother, father, siblings, others) used verbal and physical actions in a relationship (see Table 1, pg. 58).

Male-support and feminist theorists have long supported the claim that male social learning grounds for violence breed potential batterers. Groups, such as Greek

fraternities and athletic teams, have traditionally been labeled as some of these potential learning grounds for male-perpetrated violence. Research has supported the strong correlation between acceptance of friends' violence and one's own perception of violence (Reitzel-Jaffe & Wolfe, 2001). Additional studies have found a correlation between substance abuse and peer usage, sexual aggression and peer behavior, and other factors that appear to be learned from the individuals with whom one associates (see DeKeseredy & Kelly, 1995). Examining previous research (see Biddle, Bank, & Marlin, 1980; DeKeseredy & Kelly, 1995; Lisak, 1994; Cairns & Cairns, 1994), the tendency for peer association as a strong indicator of future violence appears to be more relevant than witnessing parental abuse. Therefore, differential association variable (1) is used in the current model as a measure of peer association.

Reitzel-Jaffe and Wolfe (2001) found violence in the family of origin to be a consistent risk factor of adult victimization of partners. Witnessing abuse in the family as a child increased the likelihood for perpetrating violence, as well as increased the development of negative beliefs about gender and violence in dating relationships (2001). In recent studies, the witnessing of abuse as a child has been found to be a significant risk factor for intimate partner violence and increases when violence is condoned in the relationship (see Feerick & Haugaard, 1999; McCloskey & Lichter, 2003). Therefore, differential association (2) is used in the current model for parental and peer approval of violence.

Chen and White (2004) found, men who witnessed parental fighting as a child had a greater likelihood of perpetrating intimate partner violence as an adult. Additionally, Mihalic and Elliott (1997) found witnessing violence in childhood resulted in more stress,

a decrease of satisfaction within relationships, minor assault, and most importantly, adolescent victimization. Surveying young adults of varying ages, Chen and White (2005) found perpetrators of intimate partner violence are also "more likely to be victims of intimate partner violence and vice versa" (p. 1293). The obvious risk factors associated with witnessing parental/spousal abuse as a child appear to translate into possible acts of perpetrated violence and victimization.

The increased likelihood of victimization of violence as the result of one's own perpetration of violence, or increased association with violent peers and family, has been significantly correlated with physical perpetration and victimization of violence in intimate relationships. Therefore, it is hypothesized that children who witness abuse in a parental relationship will more likely recognize violence as an acceptable course of action in dating relationships. Differential association (3) is used in the current model for measuring the number of individuals who were witnessed perpetrating physical and psychological violence.

Therefore, this research will determine if there is a correlation between becoming a perpetrator of violence and/or becoming a victim of violence and witnessing intimate partner violence between peers and parents. The current study uses the three measures of differential association as the independent variables and the dependent variables of physical and psychological perpetration and victimization of violence to determine the strongest correlation between learning violence and with whom one associates.

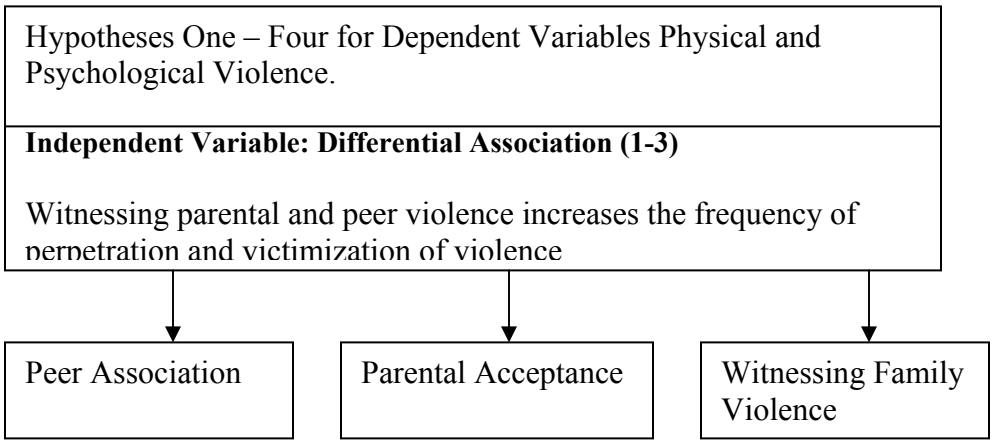


Figure 1. Hypotheses one – four for dependent variables physical and psychological violence.

H_a (5): The greater the amount of alcohol consumed the greater the incidence of violence will increase.

Mahlstedt and Welsh (2005) studied the perceived causes of physical assault within dating partners using alcohol as one of the key variables. Their research found alcohol played a significant role in violence when one or both partners were intoxicated and/or just drinking socially (Mahlstedt & Welsh, 2005). Marcus and Swett (2003) also have found support for increased partner violence when the variable of alcohol is added to the equation. It can be assumed drinking may play an important role in intimate partner violence on campus with increased alcohol consumption. The initiation of multiple measures of drug use (marijuana, cocaine, opiates) for the current research should provide a more detailed examination of a correlation between substance abuse and physical and psychological violence.

H_a (6): The greater the psychological abuse, the more frequently physical violence will occur in intimate relationships.

Hypothesis Six states, in intimate relationships, psychological abuse will occur more frequently than physical violence. If violence escalates, meaning that it starts out

minor and increases in severity, then psychological abuse should begin the cycle of violence and culminate with more severe physical violence. Psychological abuse, such as name-calling (fat, stupid, loose), has been shown to occur more frequently in relationships. Harned (2002) found that over 80% of the respondents reported psychological aggression in relationships. This is in comparison to 22% percent of the respondents experiencing physical aggression (Harned, 2002). The importance of identifying psychological abuse as a precursor to physical violence may allow colleges and universities to change or even adapt their current policies for violence awareness by addressing the importance of identifying early warning signs to educate men and women about the seriousness of psychological abuse.

H_a (7): The greater the perceptions of power and control one possesses in a relationship, the greater the likelihood of perpetrating violence will increase.

The current research hypothesizes that power and control variables do affect intimate partner violence. Research has shown a man will use resources as his rationale for reinstating power in the relationship (Hagan et al.,1987; Hagan, 1988) and is more likely to over-compensate for the lack of resources by using violence or threats of violence in the relationship (Allen & Straus, 1979; DeMaris, 1987; Hornung et al., 1981).

However, when tested in integrated or combined models, "the measures of social learning theory have the strongest main effects" (Akers, 2004, p. 93). Although socioeconomic status and overall power in the relationship may be contributing factors to perpetrating intimate partner violence, it is believed by the researcher these variables may only account for a fraction of the explanatory power and "learned violence" may explain more of the variance.

Hypothesis Seven: Dependent Variable: (Physical and Psychological Violence) **Independent Variables: (Blood & Wolfe, Attractiveness, Expected income in 5 years, Current Employment, Primary Source of Income)**
The greater the perceptions of power and control one possesses in a relationship, the greater the likelihood of perpetrating violence will increase.

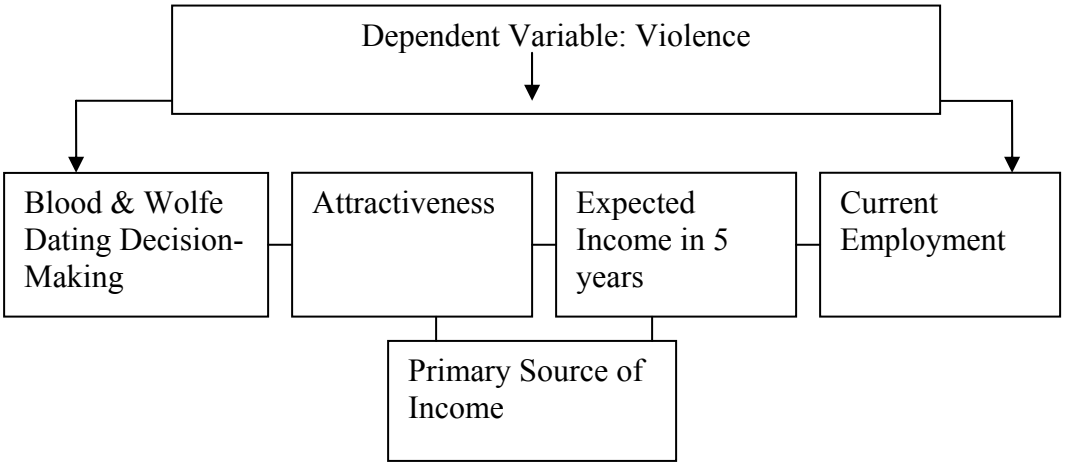


Figure 2. Hypothesis seven for dependent variables (physical and psychological violence).

Sampling Methodology

A survey method was chosen for the current study. The survey consisted of 186 survey items (See Appendix C) detailing the dependent variable of violence, and the independent control and demographic variables, social learning variables, and power-control variables. The survey was administered in the classroom setting, and based on previous research utilizing the CTS2, the survey was estimated to take approximately ten to twenty (10-20) minutes to administer for the CTS section and approximately five to ten (5-10) minutes for the social learning and power-control sections. The completion time was met for all classrooms participating in the survey. Participation in the survey was

voluntary, and the respondent's confidentially was insured. The researcher made it known that no points would be deducted from class exercises, nor would any student who elected not to participate be penalized. The individual administering the survey indicated the importance of the research project and the sensitivity of the topic (See Human Protection).

A sample size (n= 300) of three hundred participants was needed, based on the assumption each independent variable should have an average of thirty respondents (differential association, differential reinforcement, negotiation, definitions, 2 power-control variables, 4 control variables). Participation was not an issue of concern with such a large university population. To insure access, only randomly selected participating professors received introductory letters.

Sampling Population

The minimum 300 respondents were achieved with a sample of 361 (n=361). Each student was an undergraduate student currently enrolled for the fall semester at the research site. Previous research designs using student samples at the proposed university successfully created a stratified student sample by freshmen, sophomore, junior, and senior groupings. Due to specific courses being slated to fill requirements for completions of a minor or secondary concentration of study, course availability, and extracurricular and social activities, it was not possible to have all freshmen participating in a course structured specifically for them. As a result, an attempt was made to over sample the courses normally attended by freshman. This insured the average number of students per class rank (Freshmen, Sophomore, Junior, Senior) was sampled.

Using the fall 2007 Catalog and the total university population to determine a stratified student population, the researcher attempted to focus on courses attended primarily by freshman, sophomore, and upper-class students to accurately survey a desired number of each status of student. Although the creation of a list of available courses for the fall semester was available, the courses were randomly selected to eliminate any bias that could be created by selecting only one student major such as criminal justice, or focusing on only one professor. The researcher took every precaution to insure the selection was random. However, class enrollment on the day of survey administration, and student willingness to participate were not under the researcher's control and average populations were not equal.

Procedures/Human Subject Protection

Surveys were administered during class sessions that coincided with times appointed to the researcher by the participating professor. The author of this research was the sole individual administering the survey instrument. After being apprised of the subject content of the survey, students present on the day of the survey were given the option of participating. Since the study involved intimate violence, personal feelings, and events that may be traumatic, the subject matter was approached in a sensitive and respectful manner.

Once the above information was addressed, the respondents were administered the consent form by the researcher. The consent form addressed in-depth the importance for the respondent to participate. However, the consent form also informed the respondent that participation was voluntary; there was no sanction for non-compliance and no reward for compliance. The consent form addressed the issue of intimate partner

violence and allowed individuals to choose if they wished to complete the survey. Those who wished not to complete the survey were asked to sit quietly and return the uncompleted survey when class finished.

In any research, human subject protection is a must. The researcher discussed the issues of confidentiality and anonymity. The informed consent form allowed the respondent to know participation was voluntary and there was no potential harm to anyone involved. The survey had no identifying marks; respondents were advised that they should not apply any identifying marks. Only the researcher and the researcher's committee would have availability to the surveys. The informed consent letter reaffirms that the data gathered would not be traceable and student answers would remain anonymous.

The sensitivity of the study must be addressed as well. The introduction by the researcher to the class and the informed consent form both described the topic of intimate partner and domestic violence. The personal nature of the survey items in relation to abuse (psychological, physical, and sexual) could cause harm or reestablish otherwise suppressed thoughts of traumatic events. Contact information was made available on the informed consent form for the respondents to keep in case of such an event. The instructions listed campus telephone numbers available for help as well as local, city, and state, agencies to call for help or counseling.

Analysis

The analysis consists of descriptive statistics and multivariate tests to determine relationships between the variables. Additional statistical data, such as a correlation matrix, were run to insure that multi-collinearity was not a problem with any of the

independent variables. SPSS was the program used for this analysis. A discussion of the analysis is provided below.

Binomial logistic regression (LOGIT) is the primary statistical tool for the study. The formula for binary logistic regression is: $\ln [P(y = 1)/1\text{-}P (y = 1)] = \sum \beta_k x_k$ (Myers, personal communication, September, 2004). This formula allows for the prediction of several assumptions from the data. Binomial logistic regression provides an analysis of statistical significance for the effect that each independent variable has on the dependent variable for the given model. The use of standardized and unstandardized coefficients provides a better explanation of these variables. The standardized coefficients permit for the ranking of significant independent variables by strength of relationship with the dependent variable. The larger the standardized coefficient (b) (calculated using Roncek's formula: $b * \sigma x$) the more explanatory power the independent variable provides (b= unstandardarized coefficient, σ = standard deviation of x) (Frenzel, 2005). The unstandardized coefficient depicts the odds of being in one of two categories 0= no act, 1= any act of violence. This percentage will be based on the odds of being in the selected category, as opposed to the additional category of the dichotomous dependent variable (DeMaris, 1992; Frenzel, 2005).

For the witnessing abuse hypotheses [**(H_a (1)- H_a (2)- H_a (3)- H_a (4)]**, alcohol hypothesis **[(H_a (5)],** power-control hypothesis [**(H_a (7)]**, the social learning model, and Models 1-4 for all independent variables, binary logistic regression was the method of analysis (See p.90). For hypothesis Six, psychological abuse **[H_a (6)],** a bivariate correlation matrix was used to determine if a significant correlation existed between physical and psychological perpetration and victimization of violence**.** The dependent

variable was measured using data collected from the Conflict Tactics Scale. Original attempts at collecting data using a seven point Likert-scale (ordinal data) developed by Straus (1979), and modified by Sellers et al. (2003), required the collapsing of the dependent variable due to under-reporting of violence in intimate relationships. Underreporting was not a problem for the current study. However, the overall reporting of minimal "total" acts of violence has made it necessary to collapse the data into a dichotomous variable. For the most recent attempt at measuring intimate partner violence (see Sellers et al), this seven point Likert-scale was reduced to a dichotomous dependent variable (Sellers et al., 2003).

Binary logistic regression is used to determine the relationship between the dichotomous dependent variable and the ten independent variables of the study (Differential association, Differential Reinforcement, Imitation, Definitions, Blood & Wolfe Power Scale, Attractiveness, Gender, Age, Athletic Affiliation, and Greek Membership)(Model 1 = Physical Perpetration, Model 2 = Physical Victimization, Model 3 = Psychological Perpetration, Model 4 = Psychological Perpetration). Model 1 uses "physical perpetration" of violence as the dependent variable to determine the statistical strength of the correlation between physically perpetrated violence and the twelve independent variables listed above. Model 2 uses "physical victimization"; Model 3, "psychological perpetration"; and Model 4, "psychological victimization," as the dependent variable. Each model is run separately with the twelve independent variables to determine the strongest correlation between the dependent and independent variables (See Chapter Four).

For the dependent variable " victimization of violence" (Model 2) (becoming a victim of violence), the same independent variables used in Model 1 are used for determining the relationship the independent variables have on predicting the likelihood of becoming a victim of violence. The assumption under social learning is the same variables used for explaining why someone perpetrates violent acts against a partner in a relationship, should also offer an explanation about why people are victims of violent relationships.

Strengths and Limitations

The limited amount of research conducted on college-aged individuals pertaining to intimate partner violence provides an opening for the current research to add to the body of knowledge as to why young adults become victims of abuse and/or perpetrators of violence against partners. This study incorporates two theories, social learning theory and power-control theory, which should provide for a better understanding of "why" (predictors of perpetrated and victimization with intimate partner violence) violence occurs. A broad research design may find that differential association or differential reinforcement is highly correlated with perpetrating violence. However, narrowing these findings to focus more in-depth on power and control variables may explain more of variance in the model. Social learning theory and power-control theory have not been widely used with college-age individuals. Most recently, Sellers et al., (2005; 2003), was the most comprehensive work pertaining to intimate violence and college-aged individuals. Although their research found two of the four independent variables to be significant, the authors concluded more research was needed regarding social learning theory and intimate partner violence (Sellers et al., 2003).

An additional strength is the application of more "modern" power-control theory survey items. Although the traditional "SES" and "perceptions of control in a relationship" were used, "contemporary" power-control items were created pertaining to attractiveness and dating decision-making. It is the belief of the researcher that the variables pertaining to power-control must be updated to reflect the dating subcultures of college students. By asking items pertaining to level of education and more importantly, attractiveness of one's partner, it is believed a more updated application of power-control theory will be studied. A noticeable limitation of the study can be found in the geographical area of the study. Past research studies also yielded little variation in race and religion of the research participants.

Policy Implications

The current research examined the relationships between learning to become violent and learning to become a victim with college-aged individuals. The research may provide a better understanding of the scope of the problem with a university sample, and, coinciding with previous research on the topic, may permit for a better understanding of "why" intimate partner violence occurs. Understanding the risk factors associated with intimate partner and domestic violence could provide middle schools, high schools, as well as college and universities, the tools to implement more in-depth strategies for preventing intimate partner violence.

CHAPTER IV

ANALYSIS

Sample Population

A total of 375 currently enrolled undergraduate students were issued a survey in a randomly selected classroom setting. Three hundred and seventy-two students elected to participate in the survey. Of the 372, 11 surveys were removed from the final data set for one of two reasons. First, three non-traditional students exceeded the criteria for the projected age range. Due to the small number of non-traditional students, these surveys were excluded in order to avoid skewing data.[15] The ages of the qualifying participants ranged from 18-25 years old. Eight additional surveys were removed because the respondents had no prior history of dating. These respondents had completed only the demographic variables. The lack of usable data from these completed surveys made it necessary to them from the final set. This allowed for a sample population of 361 student participants.

The average age of the respondents was 19.92 years. For age, 92.8% of the population fell into the "standard" undergraduate age range of 18-22 years (See Appendix D, Table 26). The distribution of gender (after removing the 11 surveys) was 46.8% male respondents and 53.2% female respondents. The mean amount of total college credits was 39.41, or roughly that of a first or second semester college sophomore (See Appendix D, Table 26). Although all students were reported as undergraduate students, the range for total college credits was 0-134 completed college credits. Approximately 82% of the sample was Caucasian, 12.2% African American, with other races accounting for the

[15] The data from the non-traditional students was still collected and warehoused with the remaining surveys.

remaining sample. Although this does bias the results heavily toward abuse among Caucasians, the statistical averages for race are similar to those of the university sampled. The typical living condition arrangement was with a friend or roommate. This accounted for 60% of the current living conditions for those responding. Only 6.1%, or 22 of the 361 respondents acknowledged living with a spouse, mate, or children (See Appendix D).

One aspect of social learning theory addressed is differential association, or with whom one most often associates as a factor that may facilitate one's criminal or non-criminal learning. This survey attempted to focus on the issue of differential association by measuring the total number of Greek affiliated respondents and the total number of individuals participating in athletic programs. However, the response was very low for these two variables. Greek membership accounted only for 14.8% of those surveyed, and athletic membership accounted for only 9.8%. These are relatively low numbers to make any solid conclusions. However, conclusions will be made concerning these variables later in Chapter Four.

One additional survey item focused on major life events that may have interrupted the respondent's life in the past two years. There were 24 possible answers to this item (See survey item #29 below). The most frequently reported life-changing event (out of 361 respondents) was "finding a new love" (136), followed by "moving to a new home" (122), "breaking up with a loved one" (113), "changing schools" (111), "death in the family" (101), and "getting a new job" (99). The least frequently reported were, "unwanted pregnancy" (10), "military deployment" (14), "study aboard" (15), "fired from work" (16), and "arrested" (16). The respondents did not respond frequently to having many "major" life events, but did respond more frequently to traditional life

events encountered by most college students, such as breaking up and changing schools.[16]

29) What are the major events in you life which, for better or worse, interrupted or changed your usual activities during the past two years?
CHECK ALL THAT APPLY

__Moved to a new home	__Studied abroad	__Began new job
__Fired from job	__Major financial setback	__Changed schools
__ Military deployment	__Arrested	__Involved in lawsuit
__On academic probation	__roommate problems	__Problems with course work
__Excessive partying	__Alcohol/drug problems	__Major illness
__Psychological problems	__Illness/injury in family	__Divorced
__New love relationship	__Lost virginity	__Breakup w/ boy/girlfriend
__Sexual problems	__Unwanted pregnancy	__Death of loved one/friend

Hypotheses

H_a (1): Individuals who witness spousal abuse will be more likely to perpetrate intimate partner violence.
H_a (2): Individuals who witness spousal abuse will more frequently become a victim of intimate partner violence.
H_a (3): Individuals who witness abuse in peer dating relationships will more frequently perpetrate violence in intimate relationships.
H_a (4): Individuals who witness abuse in peer dating relationships will more frequently become a victim of intimate partner violence.

As noted in Chapter Two, those who witness the battering of a parent tend to show more aggressive tendencies than children who have not witnessed abuse within their home (McCloskey & Licter, 2003). Similarly, those who report witnessing domestic violence in their home as children are also more likely to report at least one type of violence in their home later in life (Saunders, 2003). Therefore, using the three independent variables of differential association, and the dependent variables of perpetrating and becoming a victim of physical and psychological violence (physical CTS2 subscale), four separate binary logistic regression models were run to determine a relationship between the dependent and independent variables of differential association (see Table 1, page 58 for the list of independent variables).

[16] See Appendix E for cross-tabulations of gender and use of violence with each life-changing event.

For the current models, only one measure of differential association was statistically significant. The measure for differential association (variable one), "number of negative peer associations", was statistically significant for physical and psychological perpetration and victimization of intimate partner violence. Numerous studies demonstrate the tendency for peer association as a strong indicator of future violence (Biddle et al, 1980; Cairns & Cairns, 1994; DeKeseredy & Kelly, 1995; Lisak, 1994). The current study supports the literature.

For the measure of differential association (1), the survey item asked, "About how many of your closest friends have ever had the following things happen in a disagreement with a spouse or partner?" For this model, negative peer associations continue to provide explanatory power for the hypotheses. The data indicate respondents who witness through association with peers more acts of intimate partner violence are more likely to perpetrate physical violence than those respondents who witness less acts of violence (expected percentage change 18.8%). The data also indicate respondents who witness through peer association more acts of intimate partner violence are more likely to perpetrate psychological violence and become the victim of psychological and physical victimization than those respondents who witness less acts of violence (expected percentage change psychological perpetration 14.2%, psychological victimization 20%, physical victimization 15.5%).

Negative peer influences have traditionally been viewed in the literature and society as possible motivators of future criminal activity. The current data suggest witnessing and association with peers who commit more acts of intimate partner violence does increase the likelihood of the respondents in the current model to perpetrate and

become a victim of intimate partner violence. The strength of peer associations depicts the importance of early education and parental guidance on friendships for possibility limiting violent peer influences.

Only one additional variable attained statistical significance. Differential association (variable 3), witnessing acts of violence in the family, was statistically significant for Models 1 and 3. However, when found statistically significant, differential association (3) was the weakest measure of the independent variables. Witnessing family members fight (physically and verbally) does increase the likelihood of perpetrating violence later in life. It is important to note, although the measure is weak independently, when run in a larger model of social learning theory's explanatory power for the dependent variables perpetrating physical and psychological violence and victimization of physical and psychological violence, differential association attained statistical significance. The explanatory power of various aspects of differential association remain one of the strongest measures for predicting violence for all four models of violence as discussed later in Chapter Four.

The data indicate respondents who witness through association with parents and siblings more acts of physical perpetration of violence are more likely to perpetrate physical and psychological violence than those respondents who witness less acts of violence (expected percentage change physical perpetration 4.2%, psychological 9.2%). The strength of the relationship is weak (R^2= 13% for both models), but it does provide some statistical evidence of witnessing violence and later perpetrating violence in intimate relationships.

The data for the four models below find support for Hypotheses One through Four. Hypotheses One through Four portray the strength of differential associate variables, especially peer and parental influence, in predicting future perpetration and victimization of violence in intimate relationships. The possibility remains that the initial act of witnessing violence may be a better determining factor for explaining why one decides to perpetrate or allow oneself to become a victim is a problem. Age of onset, or the age at which one first witnesses violence and with whom (friend, parent, sibling), may have a stronger association with later violence. Future research should note this possible correlation to determine if age and differential association are more strongly correlated with perpetration and victimization of intimate partner violence.

Table 2
Logistic Regression Analysis for Hypotheses One – Four

Logistic Regression Analysis for Hypothesis #1 Physical Perpetration

Variable	B	SE	Odds ratio	$\lvert b(\sigma_x) \rvert$
Constant	-1.452	0.778	.234	
Differential Association 1 *	0.172	0.047	1.188	0.478
Differential Association 2	-0.011	0.032	0.989	
Differential Association 3 **	0.040	0.017	1.041	0.315

* $p< 0.001$ ** $p<0.05$ $R^2= 0.131$ (13%) Chi-square 36.761

Logistic Regression Analysis for Hypothesis #2 Physical Victimization

Variable	B	SE	Odds ratio	$\lvert b(\sigma_x) \rvert$
Constant	-1.756	0.779	0.173	
Differential Association 1 *	0.144	0.045	1.155	0.400
Differential Association 2	0.022	0.032	1.023	
Differential Association 3	0.031	0.016	1.032	

* $p< 0.001$ ** $p<0.05$ $R^2= 0.085$ (8.5%) Chi-square 23.498

Logistic Regression Analysis for Hypothesis #3 Psychological Perpetration

Variable	B	SE	Odds ratio	$\lvert b(\sigma_x) \rvert$
Constant	-0.868	0.979	0.420	
Differential Association 1 **	0.133	0.065	1.142	0.369
Differential Association 2	0.047	0.040	1.048	
Differential Association 3 *	0.094	0.026	1.098	0.740

* $p< 0.001$ ** $p<0.05$ $R^2= 0.137$ (13%) Chi-square 30.280

Logistic Regression Analysis for Hypothesis #4 Psychological Victimization

Variable	B	SE	Odds ratio	$\| b(\sigma_x) \|$
Constant	0.083	0.978	1.086	
Differential Association 1 *	0.182	0.066	1.200	0.506
Differential Association 2	0.018	0.040	1.018	
Differential Association 3	0.040	0.024	1.041	

* $p < 0.001$ ** $p < 0.05$ $R^2 = 0.087$ (8.7%) Chi-square 18.684

H_a (5): The greater the amount of alcohol & marijuana consumed, the greater the incidence of violence will increase.

For Hypothesis Five, the model used physical abuse perpetrated and physical abuse as a victim as two separate dependent variables. Variables of alcohol and marijuana use by a partner and alcohol and marijuana use by respondent will measure the independent variables. Several legal and illegal substances were addressed in this survey item. Use of alcohol, marijuana, cocaine, stimulants, depressants, narcotics, and other substances were surveyed (See Appendix D, Tables 31& 32). Although seven types of usage were provided, only two, alcohol and marijuana, garnered enough responses to warrant examination. Alcohol use, Marijuana use, Alcohol use by a partner, and Marijuana use by a partner, are the four measures that will be used.

The overall measure is found to be significant at the 0.01 level ($R^2 = 0.088$). All four independent variables fail to reach statistical significance for the current hypothesis. Although, the addition of the four independent variables increases the likelihood of predicting perpetration of physical violence, only one variable, partner's use of marijuana is approaching statistical significance. Personal alcohol and marijuana use, and partner's alcohol use, all fail to reach statistical significance for the current hypothesis. The data illustrate drug and alcohol usage have little effect on the perpetration of intimate violence for the current sample. Much media attention and public awareness campaigns on college campuses have focused on the role alcohol plays in sexually and physically abusive

relationships. Future research should consider revising or retesting the current approach to determine if the current finding is reliable across research populations.

Table 3
Logistic Regression Analysis for Hypothesis #5 Variables: Physical Perpetration

Variable	B	SE	Odds ratio
Constant	-1.097	0.334	0.334
Partner use of alcohol (12 months)	0.043	0.115	1.044
Personal alcohol use	0.101	0.105	1.044
Personal marijuana use	0.099	0.110	1.104
Partner use of marijuana	0.178	0.102	1.195

Note: $R^2 = 0.088$, $p < .01$, Chi-square 15.691, Dependent variable 59.2% prediction rate; Independent variable added 63.4%

Identical results are found for the victimization of physical abuse in the past model is statistically significant at the 0.05 level, all four independent variables fail to reach statistical significance. Partner's usage of alcohol and drugs both fail to attain significance and both depict a positive correlation with increased usage and increased victimization. The likelihood of perpetrating and becoming the victim of intimate partner violence is affected minimally by the self-reported use of drugs and alcohol by the respondent and the respondent's partner. Once again, future research should retest the variables used to measure drugs and alcohol in an attempt to confirm external validity is not a concerning issue.

Table 4
Logistic Regression Analysis for Hypothesis #5 Variables: Physical Victimization

Variable	B	SE	Odds ratio
Constant	-0.828	0.320	0.437
Partner use of alcohol (12 months)	0.075	0.112	1.078
Personal alcohol use	0.155	0.104	1.122
Personal marijuana use	0.024	0.107	1.024
Partner use of marijuana	0.067	0.100	1.069

Note: $R^2 = .040$, $p < 0.05$, chi-square 7.024, Dependent variable 57.9% prediction rate; Independent variable added 62.2%

H_a (6): The greater the psychological abuse the more frequently physical violence will occur in intimate relationships.

Names such as fat, ugly, stupid, awkward, and non-athletic have been used as verbal insults since childhood for many of the population. It has become socially accepted that these insults result in increased tension with children. The argument arises that when we reach young adulthood, do name-calling and verbal insults increase the likelihood of perpetrating violence? If a young child is continually called names by a larger or more powerful individual and finds no recourse to impede the unwanted attention, the likelihood of the bully to continue the insults and potentially use physical aggression to achieve the desired outcome may increase. Does this occur with young adults in intimate relationships? Does the use of psychological perpetration of violence increase the use of physical perpetration of violence using the same explanation provided above?

The bivariate analysis for psychological perpetration and physical perpetration reveals a positive statistically significant relationship between the two. Psychological and physical perpetration are "highly" correlated and statistically significant at the 0.001 level. Therefore, as one's perpetrated psychological acts of violence (name calling, controlling behavior, and stomping out of a room) increase, the likelihood of the respondent perpetrating physical acts of violence may increase as well. This is an expected outcome. However, it is necessary to address, because early education of the "potential" severity of psychological violence may permit individuals the ability to recognize possible batterers before the relationship develops.

Using the same scenario for psychological victimization, a bivariate correlation was run to determine if there is a correlation between psychological victimization and

physical victimization using the CTS2. The relationship is "highly" correlated and statistically significant at the 0.001 level. Therefore, as one's psychological victimization (name calling, controlling behavior, stomping out of a room) increases, the likelihood of this same individual becoming the victim of physical violence increases as well. This is an expected outcome, and once again illustrates the potential need for education of early warning signs and the relationship of physical battering and psychological abuse. It is important to address that 301 of the 361 respondents experienced psychological perpetration of violence and 303 experience psychological victimization. Therefore, roughly 83-84% of the sample experienced a form of psychological abuse (perpetrated or victimized). The rate of psychological abuse accounts for the inflated results depicting a significant positive correlation between the two variables. It is difficult to ascertain if the data prove psychological violence leads to physical violence. Possibly, the majority of intimate relationships with college-aged individuals just experience more psychological abuse.

Table 5
Regression Analysis for Hypothesis #6 Variables

Variable	**Psychological Perpetration of Violence**	**Physical Perpetration of Violence**
Psychological Perpetration of violence	1	0.743**
Physical Perpetration of violence	0.743**	1
Variable	**Psychological Victimization of Violence**	**Physical Victimization of Violence**
Psychological Victimization of violence	1	0.733**
Physical Victimization of violence	0.733**	1

** correlation is significant at the 0.01 level

H_a (7): The greater the perceptions of power and control in a relationship one possesses, the greater the likelihood of perpetrating violence will increase.

Hypothesis Seven states that as power and control in a relationship increase, the more likely one is to perpetrate violence. For the current model, all five measures of

power-control fail to reach statistical significance. Only one measure, the revised Blood Wolfe Scale is approaching significance. Running the same model for victimization of physical violence, only one measure is statistically significant. The revised Blood Wolfe Scale is statistically significant at the 0.05 level. Respondents who possess more power with decision-making in the relationship are less likely to become physically victimized (expected percentage change 2.5%). This result is very weak. The variables of "attractiveness of the partner", "primary source of income", "expected income in the next five years", and "current employment", all fail to reach statistical significance.

Previous literature has supported the concept that actions of violence are accelerated in situations where the partner possesses the most resources, and the partner uses these resources as the rationale for reinstating the power in the relationship (Hagan et al., 1987; Hagan, 1988). It is very likely the increased perpetration of physical violence is related to power. However, for the current model, power in intimate relationships fails to reach statistical significance for perpetrating physical violence. Yet, the relationship between physical victimization and one measure of power-control (Blood Wolfe Scale) is a positive statistically significant relationship. The discrepancy with physical perpetration and victimization producing minimal explanatory power justifies the importance of social learning variables in studying intimate partner violence. However, future research should further evaluate the relationship of gender, employment status, and additional power-control variables to determine a possible relationship with intimate partner violence.

Table 6

Regression Analysis for Hypothesis #7 Variables (Perpetrated)

Variable	B	SE	Odds ratio
Constant	0.010	0.658	1.010
PC Blood Wolfe Scale	-0.024	0.143	0.976
PC Attractiveness	-0.015	0.009	0.985
PC Expected income in 5 years	0.006	0.081	1.006
PC current employment	-0.021	0.086	0.980
PC Primary source of income	-0.005	0.161	0.995

Table 7

Regression Analysis for Hypothesis #7 Variables (Victimization)

Variable	B	SE	Odds ratio
Constant	0.821	0.143	2.273
PC Blood Wolfe Scale	-0.169	0.009	0.844
PC Attractiveness	-0.026	0.081	0.975
PC Expected income in 5 years	-0.096	0.085	0.908
PC current employment	0.039	0.159	1.040
PC Primary source of income	0.051	0.660	1.052

Table 8

Current Employment for Hypothesis #7

Variable	Frequency	Percent	Valid Percent	Cumulative Percent
Not Working	196	54.3	54.3	54.3
Working Part time	161	44.6	44.0	98.9
Working Full time	4	1.1	1.1	100.0
Total	359	100.0	100.0	100.0

Table 9

Current Employment by Gender and Perpetrated Violence for Hypothesis #7

Current Employment	Gender	No Violence	Yes Violence	Total
Not Working	Male	56	36	92
	Female	52	52	104
	Total	108	88	196
Working (full or part-time)	Male	58	18	76
	Female	48	41	89
	Total	106	59	165

Social Learning (Perpetrated and Victimized Physical and Psychological Violence)

Hypotheses One through Seven represent the strength of differential association and power-control variables for explaining a relationship among physical and psychological abuse. Differential association continues to have the strongest relationship among the independent variables, with power-control variables, and alcohol and drug use,

providing little or no support to the hypotheses. The current approach determines the explanatory power of the four measures of social learning theory in association with the dependent variables. This is followed by the overall model of the social learning theory, power-control, and demographic variables for the current study.

The social learning model is divided into four sub-groups. A model for each of the four dependent variables was run against the four measures of social learning theory (Perpetrated Physical, Victimized Physical, Perpetrated Psychological, Victimized Psychological) (see Table 10 below). Only one measure attains statistical significance for all four social learning models. Differential association remains the only statistically significant measure and the strongest measure for predicting future victimization and perpetration of violence. The variable, definitions of law, is significant for the models of physical violence, as well as differential reinforcement for physical perpetration, but imitation fails to attain statistical significance for the physical measures of violence. For psychological violence, only differential association and imitation attain statistical significance for the current models. Differential reinforcement fails to attain statistical significance.

The physical perpetration of violence model found the strongest correlation among the measures of differential association (expected percentage change 20%). As variables of differential association (negative peer influence, witnessing abuse) increase, the likelihood of perpetrating physical violence in an intimate relationship increases. Definitions (expected percentage change -7.1%) and differential reinforcement (expected percentage change 11%) are significant. Therefore, as definitions increase (beliefs toward law-abiding and negative views of violence), the likelihood of perpetrating violence

decreases. Additionally, as differential reinforcement (reinforcing acceptable views of violence) increases, the likelihood of perpetrating physical violence increases. Although three of the four measures attain statistical significance, differential association provides the strongest correlation between the independent variables in the various models.

The physical victimization model of violence found the strongest correlation between the measures of differential association. However, definitions of law is statistically significant. As some variables of differential association increase, the likelihood of becoming a victim of physical violence in an intimate relationship increases. Differential association (expected percentage change 16.6%) and definitions (expected percentage change -10.2%) were significant. As definitions increase (beliefs toward law abiding and negative views of violence), the likelihood of becoming a victim of physical violence decreases. Both definitions and differential association were found statistically significant as measures of physical perpetrated and victimized violence.

The psychological perpetration of violence found the strongest correlation between the measures of differential association. This is identical to previous models. For both psychological perpetration and victimization, only two measures attained statistical significance. Differential association and imitation were statistically significant at the 0.05 level. As variables of differential association increase, the likelihood of perpetrating psychological violence (expected percentage change 18.1%) and the likelihood of becoming a victim (expected percentage change 19.5%) of psychological violence increases. As variables of imitation increase (visualizing more role perpetrating violence) the likelihood of perpetrating psychological violence (expected percentage change 7.3%) and the likelihood of becoming a victim (6.2%) increases. Therefore, having more

negative peers, witnessing parental and family violence with no recourse of action, and visualizing more role models perpetrating violence, all increase the likelihood of psychological perpetration and victimization in intimate relationships.

The current models provide statistical support for differential association as a strong measure for future perpetration and victimization of physical and psychological abuse. The relationship between imitation and violence appears positive only among variables measuring psychological abuse. Future research should address the statistical strength of imitation when testing both physical and psychological violence**.**

Table 10

Logistic Regression Analysis for Social Learning Model

Variable **Physical Perpetration**	B	SE	Odds ratio	$\lvert b(\sigma_x) \rvert$
Constant	0.265	1.027	1.304	-
Differential Association *	0.184	0.046	1.202	0.511
Imitation	0.031	0.021	1.032	-
Definitions **	-0.073	0.035	0.929	0.247
Differential Reinforcement **	0.105	0.040	1.304	0.305
R^2	0.162			
Variable **Physical Victimization**	B	SE	Odds ratio	$\lvert b(\sigma_x) \rvert$
Constant	1.824	1.010	6.198	-
Differential Association *	0.153	0.045	1.166	0.425
Imitation	0.014	0.021	1.014	-
Definitions **	-0.108	0.035	0.898	0.366
Differential Reinforcement	0.062	0.039	1.064	-
R^2	0.124			
Variable **Psychological Perpetration**	B	SE	Odds ratio	$\lvert b(\sigma_x) \rvert$
Constant	-0.006	1.277	0.994	-
Differential Association **	0.167	0.062	1.181	0.464
Imitation **	0.070	0.029	1.073	0.409
Definitions	0.004	0.043	1.004	-
Differential Reinforcement	0.003	0.054	1.003	-
R^2	.102			
Variable **Psychological Victimization**	B	SE	Odds ratio	$\lvert b(\sigma_x) \rvert$
Constant	-0.044	1.289	0.957	-
Differential Association **	0.178	0.063	1.195	0.495
Imitation **	0.060	0.029	1.062	0.351
Definitions	0.008	0.044	1.008	-
Differential Reinforcement	0.016	0.055	1.016	-
R^2	.098			

*p< 0.001, ** p< 0.05

Models 1-4: Regression Model for Independent Variables

For testing the strength of social learning theory in explaining perpetrating and becoming the victim of intimate partner physical violence, the following formula for binary logistic regression was used: $Ln(P [y = 1] / [y = 1] = a + B_kX_k + ə$. (Myers, personal communication, September, 2004) In this equation, an attempt is made to establish a potential relationship between the dependent variables (Model 1-Model 4) and the independent variables. For each of the four models, binary logistic regression is used to analyze the effect each independent variable has on the dependent variable. Binary logistic regression provides for the determination of which of the independent variables in the model has the strongest likelihood of predicting "an act" (0= no acts, 1= any act of violence) for the dependent variable. Binary logistic regression for the current model depicts a determination of the percentage change in the likelihood of committing an act of violence for the appropriate model. A correlation matrix was constructed to insure no problems with multi-collinearity were present (> 0.700). No noticeable problems were detected (See Appendix G for correlation matrix).

The dependent variables will be measured using the revised Conflict Tactics Scale (2). The CTS2 contains five subscales (negotiation, injury, physical, psychological, and sexual coercion). Data were collected on all five subscales in an attempt to keep the survey instrument reliable and valid in comparison to previous research (see Table 25 for alpha levels). For this research, the physical and psychological subscales will be the primary focus.

The physical assault subscale records self-reported acts of perpetrated violence and victimization in intimate relationships. The physical subscale contains 12 items and

measures “minor” and “severe” physical violence as developed by the author of the scale.[17] These acts include, “pushing”, “shoving”, “grabbing” (minor), and also include “punching”, “kicking”, “burning” (severe) as measures of violence (Straus, Hamby, & Warren, 2003). The psychological subscale measures items of verbal and symbolic acts with 8 survey items. These include threats, insults, aggressive play, and otherwise any act that may cause psychological pain or fear for the victim (Straus, Hamby, &Warren, 2003). Due to the relative frequency and the lack of any fundamental criminal or societal punishments for the perpetration of these acts, little attention has been paid to the psychological subscale in accordance with intimate partner violence and learning research. The current approach addresses both the physical and psychological model of perpetrating and victimization of violence in intimate relationships.

Model 1: Perpetrated Physical Violence

Due to the skewed nature of the data, logistic regression, instead of Ordinary Least Squares Regression (OLS) is used for data analysis. Logistic regression makes no assumptions about the independent variables (DeMaris, 1992; Hosmer, 1989). However, the previously mentioned nature of the skewed dependent variable has made it necessary to collapse the dependent variable into a dichotomous variable (0= no acts, 1= any act of violence) (N= 360, 0= 212, 1= 149). However, although upwards of 40% of the sample population reported perpetrating physical violence (minimum 0, maximum 72) using the CTS, the majority of the self-reported acts of violence fell below 12 total acts (mean = 3.79). The skewed data required the use of a collapsed dichotomous variable and has allowed for the use of logistic regression as the means for data analysis.

[17] Disclaimer: Violence may be coded as minor and severe for the study, but only in accordance with previous research attempts. There is no speculation by the author minor is less serious than severe violence.

The use of binary logistic regression has been used previously and is a valid analytical tool used when the dependent variable is bounded by two categories (0 and 1) (DeMaris, 1992). Binary logistic regression does not violate the unbounded assumptions of OLS (E. Frenzel, personal communication, February 18th, 2008). However, binary logistic regression simply provides for the analysis of probability that a respondent will fall into one of two categories (0= no act of violence, 1= any act of violence) and the percent likelihood effect each independent variable has on the dichotomous dependent variable (D. Myers, personal communication, December, 7th, 2004).

The dependent variable (perpetrated physical violence) was recoded 0= no acts of violence, 1= any act of violence. The results from the binary logistic regression analysis are below. A preliminary analysis of the data depict an n of three hundred and sixty-one (N=361) (see Table 11). The cut value for the model is fifty. The model predicts correctly that 58.7% of the time, when no independent variables are considered; the respondent will have "no acts" of perpetrated physical violence. When controlling for the independent variables, the log odds of perpetrating physical violence depicts a minimal change (see Table 11). This is not a large decrease, but it sill represents an effect on the dependent variable by the independent variables.

The chi-square for binary logistic regression is similar to the F test, and can be interpreted as the difference between the Block 0 and Block 1 interaction (Myers, personal communication, September, 2004). The chi-square for the perpetrated physical violence model is 62.655. This requires a rejection of the null hypothesis that the slopes or psuedo R^2 are equal to zero for this model. However, this only explains one of the partial slopes is not equal to zero for the model. More importantly, the Nagelkerke R is

.215. In the current model, the amount of variance explained by the independent variables within the dependent variable is 21.5%. This result illustrates that, at best, only 21.5% of the variation in the model is explained by the addition of the descriptive variables and the social learning and power-control independent variables.

Using Table 11, one can accurately predict the likelihood of perpetrating 0=no acts or 1= any act of violence for the respective categories. The results of the model are a 58.7% prediction of no acts of violence when no independent variables are considered, and when the independent variables are added, a prediction rate of 69.5% occurs. This is an increase of 11% toward accurately predicting who will perpetrate physical violence in intimate relationships. Although the increase is not substantial, it does provide a better explanation when social learning and power-control variables are used for predicting intimate partner violence.

The natural log odds of the constant for the current model is 0.375 when all independent variables equal zero. However, since the current model uses AGE as an independent variable, the strength of the constant is minimal. This assumption can be made because we know AGE cannot equal zero. Additionally, only four of the ten independent variables were found to be statistically significant. Gender, power-control (Blood & Wolfe scale), total differential association, and total definitions, were the only four significant variables.

A one-unit increase in the gender (from male (1) to female (2)) results in a .623 increase in the natural log odds of perpetrating violence. For this model, as gender of the respondent changes from male to female, the likelihood of perpetrating physical violence increases. This is significant at the 0.05 level. Women were significantly more likely to

perpetrate violence (86.4% change in the odds women perpetrate violence). This result continually is found when using the Conflict Tactics Scale to measure the dependent variable. However, a visual inspection of the frequencies and cross-tabulations provided in the Appendix Section will allow for a better understanding of this observable fact. Women did admit to the commission of more total violence by severity for the current model (see Tables D5 & D6 in Appendix D).

Another statistically significant variable is the revised power-control measure of the Blood & Wolfe Scale. When applied to the model without the demographic and social learning variables, the revised power-control variable is not significant. For the current model, a one-unit increase in the PC(Blood & Wolfe) from "my partner always to me always" in decision making, results in -0.020 decrease of the natural log odds of physical perpetration of violence. This is statistically significant at the 0.05 level (0.045). For the current model, when respondents held more power in the relationship, they were roughly 2% less likely to perpetrate physical violence. Therefore, the more power the respondent retains, the less likely he or she is to perpetrate violence. Although power has been found to be a significant predictor of physical perpetration of violence, the relationship is negative, and fails to support the assumptions of power-control theory. However, with such a weak relationship (b= -.020, Exp(B) = .981), a more sophisticated approach to studying the effects of power and control on intimate partner violence is warranted.

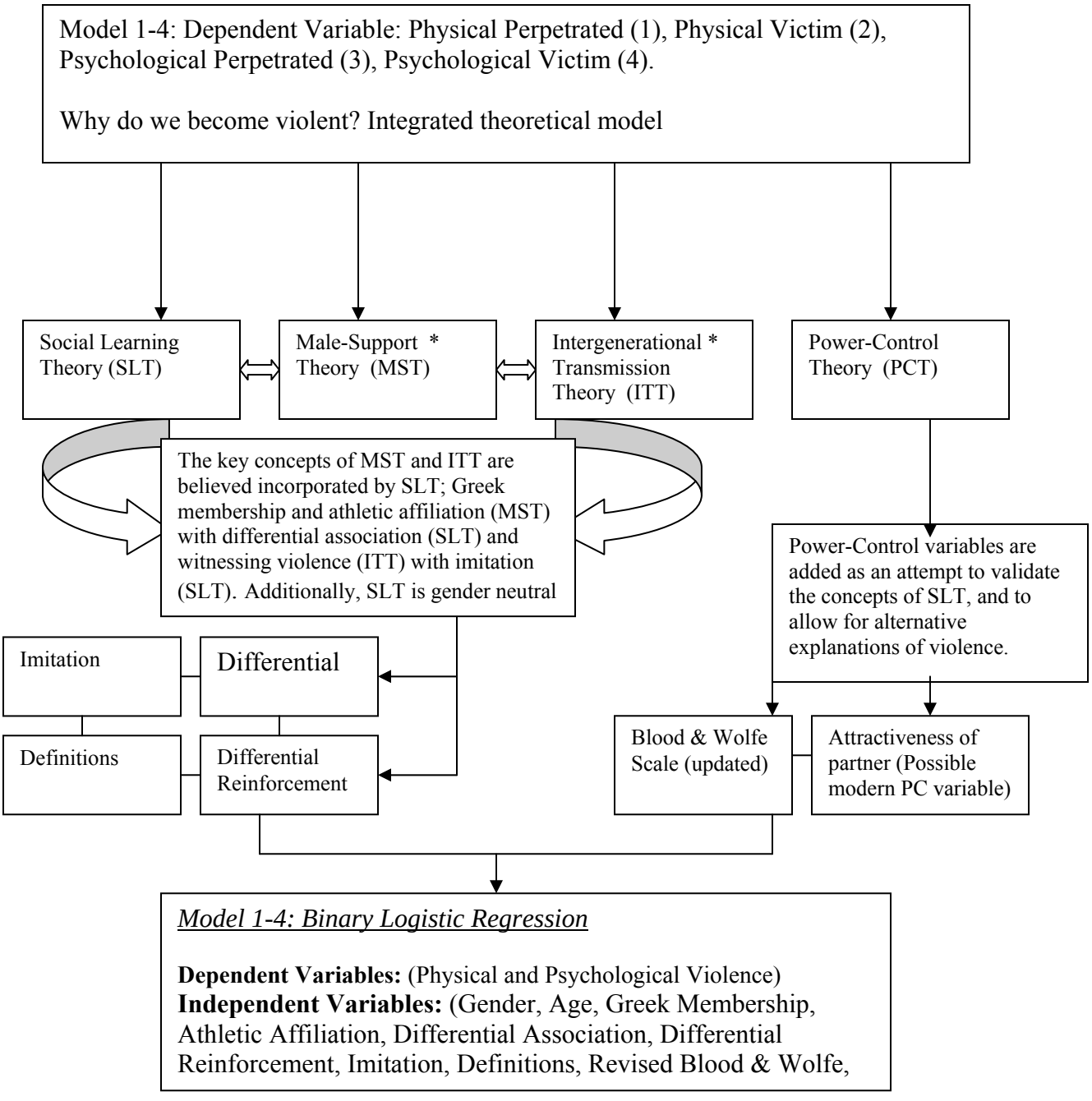
Total differential association is significant at the 0.001 level (0.000). A one-unit increase in differential association results in a .201 increase of the natural log odds of perpetrating violence. This indicates that an increase in variables associated with differential association results in a 22.3% increase in the odds of perpetrating violence.

For the current model, the more one associates with those who hold negative beliefs (violence is okay) pertaining to violence, the more likely one is to perpetrate physical violence (22.3% expected change in the odds of perpetrating violence).

The final variable of statistical significance is total definitions. A one-unit increase in definitions (from negative/violent views of law to positive/non-violent views of law) results in a -.088 decrease in the natural log odds of perpetrated physical violence. An increase in positive definitions of law results in a decrease of the odds of perpetrating physical violence (percentage expected change 8.4%). Although this is a statistically significant relationship (0.05), the strength of the relationship is relatively weak.

Gender is still one of the strongest predictors of perpetrating physical violence, but of the social learning and power-control variables, differential association has the strongest statistically significant relationship with the dependent variable (Sig. =.000, b= .201, Exp(B)= 1.223). This mirrors previous research (See Sellers et. al, 2003) using the CTS and social learning variables. Even with power-control variables in place, the strongest predictor besides gender is differential association (peers, family). The integrated model of theory for the current study (male-support theory, intergenerational transmission theory, social learning theory) supports this notion that differential association theory should be the strongest predictor of perpetrated physical violence. Future research should focus more in-depth about the relationship between gender and perpetrated physical violence in intimate relationships.

(see Table 11, p. 94)



***** Gender is a variable of interest for Models 1-4. Previous research using the CTS and CTS2 has depicted high rates of female perpetration of violence. The current study has improved on past attempts at studying violence by addressing both physical and psychological violence with an integrated gender-neutral theory. Male-support and intergenerational transmission theory both are heavily biased toward male perpetration of violence. Therefore, using the current approach, perpetration of violence, in association with gender, is of particular importance.

Figure 3. Integrated theoretical design for models one – four.

Table 11 *Binomial Logistical Regression Analysis of Physical Perpetration of Violence*

Variable	**B (SE)**	**odds ratio**	**| b(σ_x) |**
Age	-0.063 (0.079	0.939	-
Gender	0.623** (0.267)	1.864	**0.311**
Greek Membership	-0.104 (0.188)	0.901	-
Athletics	0.441 (0.421)	1.551	-
Attractiveness	0.077 (0.162)	1.080	-
Power-Control (Blood & Wolfe)	-0.020** (0.010	0.981	**0.295**
Imitation	0.037 (0.022)	1.037	-
Differential Reinforcement	0.061 (0.044)	1.063	-
Differential Association	0.201 (0.049)*	1.223	**0.559**
Definitions	-0.088** (0.037)	0.916	**0.298**
Constant	0.375 (2.178)	1.455	-
Number of cases	361		
Nagelkerke R^2	.215 (21.5%)		
-2 Log Likelihood (goodness of fit)	426.746		

* p < .001; ** p < .05

Note: Model chi-square = 62.655; Significance = .000; Percentage of outcomes predicted correctly without IVs, 58.7%. Percentage corrected predicted with IVs, 69.5%

The findings observed show mixed support for social learning theory in association with respondent's self report of using physical violence against a partner. Since previous studies compared only the physical use of aggression, the current study has focused primarily on physical aggression and social learning. Additionally, the

psychological subscale for the data set was calculated. The findings show two important observations associated with social learning theory and perpetrating intimate partner violence. First, the R^2 for the model is slightly weaker than previous research (.268). Sellers et al. (2003) found that roughly 33% "of the variation in the prevalence of courtship violence" (p. 119) was explained, and most variables attained statistical significance. The current model explains only 21.5 of the variation, and statistical significance was found for two of the four measures of social learning theory. Only one measure of power-control theory obtained statistical significance; and this relationship was the most weak of the four statistically significant variables.

The remaining six variables in the model fail to reach statistical significance. The variables included age, Greek membership, athletics, attractiveness, imitation, and differential reinforcement. The integrated theoretical model of the current study anticipated a significant relationship between physical perpetration of violence and Greek membership or athletics. The strong male social networks that are generated in these environments anticipated a significant relationship between battering and membership. However, visual inspection of the tables below indicates the low percentage of respondents' self-reporting membership of athletic affiliation. This may explain the relationship between male-support theorists views of athletics and Greek membership and the failure to obtain statistical significance for the current model. Future research should focus on a survey population of athletes or Greek members to attempt to explain a possible relationship between these variables.

Table 12
Gender and Athletic Affiliation

Variable Gender	Athletic Team Yes	Athletic Team No	Total
Male	22	145	167

Female	13	178	191
Total	35	323	358

Table 13

Gender and Perpetration of Physical Violence

Variable Gender	Perpetrated violence NO	Perpetrated violence YES	Total
Male	114	55	169
Female	98	94	192
Total	212	149	361

Table 14

Athletic Affiliation and Perpetration of Physical Violence

Variable Athletic Team	Perpetrated violence NO	Perpetrated violence YES	Total
Yes	25	10	35
No	185	138	323
Total	210	148	358

Table 15

Gender, Athletic Affiliation, and Perpetration of Physical Violence

Gender	Member of Athletics	Perpetrated violence NO	Perpetrated violence YES	Total
Male	Yes	15	7	22
	No	98	47	145
	Total	113	54	167
Female	Yes	10	3	13
	No	87	91	178
	Total	97	94	191
	Total	210	148	358

Model 2: Victimization of Physical Violence

The dependent variable (victimization of physical violence) was recoded (0= no acts of violence, 1= any act of violence). The results from the binary logistic regression analysis are below. An analysis of the data depicts an N of three hundred and sixty-one (n=361) (see Table 16). The model predicts correctly that 55.4% of the time, when no independent variables are considered, the respondent will have "no acts" of victimized physical violence. When controlling for the independent variables, the odds of becoming the victim of physical violence depicts a minimal change (see Table 16). This is similar to the results found for physically perpetrating violence, and the current model of

victimization does not depict a large decrease, but still represents an effect on the dependent variable by the independent variables.

The chi-square for binary logistic regression can be interpreted as the difference between the Block 0 and Block 1 interaction. The chi-square for the perpetrated physical violence model is 46.497. This requires a rejection of the null hypothesis that the slopes or R^2 are equal to zero for this model. However, this only explains one of the partial slopes is not equal to zero for the model. The Nagelkerke R is .162. For the current model, the amount of variance explained by the independent variables is 16.2%.

Using Table 16, one can accurately predict the likelihood of perpetrating 0=no acts or 1= any act of victimization. The results of the model are a 55.4% prediction of no acts of physical victimization when no independent variables are considered. The addition of the independent variables increases the prediction rate of 65.1%. This is an increase of nearly 10%. The addition of the independent variables increases the accuracy of predicting the likelihood of becoming a victim of physical violence by nearly 10%. This is similar to the findings for model 1, physical perpetration of violence.

The natural log odds of the constant for the current model is 3.072 when all independent variables equal zero. However, since the current model also uses AGE as an independent variable, the strength of the constant is minimal. Additionally, only three of the ten independent variables are statistically significance. Power-control (Blood & Wolfe scale), total differential association, and total definitions, are the only three significant variables. Gender has been found statistically significant and one of the strongest predictors of perpetrated physical violence, but for the current model of victimization, gender fails to reach statistical significance. The three statistically

significant variables were also statistically significant for model 1 perpetrated physical violence.

The power-control measure of the Blood & Wolfe scale is statistically significant at the 0.01(0.003) level. Once again, the measure of power-control is the most weak of the statistically significant variables. For the current model, a one-unit increase in the PC(Blood & Wolfe) from "my partner always to me always" in decision making, results in -.028 decrease of physical victimization. Therefore, a one-unit increase in decision-making (shifting toward the respondent making more of the decisions) results in the odds of physical victimization decreasing by 2.7%. In the current model, as the respondent gains more power, the likelihood of becoming of a victim of physical violence decreases by 2.7%. Although statistical significance has been reached, the weak relationship for this variable provides very little explanatory power. Furthermore, this result for gained power by the respondent decreased both physical perpetration and physical victimization of violence in the current study. Although weak, the role of power in a relationship appears to have the opposite effect for predicting intimate partner violence. As the case with Model 1, perpetrated physical violence, more research is needed. This concern is addressed in the limitations in Chapter Five.

The variable of definitions of law-abiding practices is found statistically significant (0.003). A one-unit increase in definitions (from negative/violent views of law to positive/non-violent views of law) results in a -0.107 decrease in the log odds of victimization of violence. This indicates an increase in positive definitions of law results in a decrease of the odds (11.1%) of physical victimization. Although this is a statistically significant relationship, the relationship is weak. For the current model, the more positive

definitions the respondent has toward law-abiding practices, the less likely he or she is to become a victim of physical violence.

Total differential association is significant at the 0.001 level (0.000). A one-unit increase in differential association results in a 0.169 increase of the log odds of physical victimization. This denotes an increase in variables associated with differential association (from no differential association variables to more) resulting in an 18.4% increase in the odds of perpetrating violence. The more one associates with negative peer and family influences, the likelihood of becoming a victim of violence increases by more then 18%. Identical to model 1, perpetrated violence, differential association is the strongest predictor of physical victimization. Our peers, family, and social groups, continue to be the strongest predictors of physical perpetration and victimization. These findings coincide with the assumptions of male-support, intergenerational transmission theory, and social learning theory. Differential association continues to be the strongest predictor of intimate partner violence.

One finding of importance is the failure of gender to obtain statistical significance for victimization of physical violence. Much negative attention has been generated toward the CTS for depicting inflated numbers of female perpetration of violence. Gender failed to reach statistical significance for predicting intimate partner violence for victimization. Therefore, it could be assumed the "supposed" flawed findings of the CTS are represented in the current study. More in-depth research is needed in the area of gender to fully understand the relationship between gender and intimate partner violence.

Table 16 *Binomial Logistical Regression Analysis of Physical Victimization of Violence*

Variable	**b (SE)**	**odds ratio**	**| b(σ_x) |**
Age	-0.041 (0.075)	0.960	-
Gender	0.128 (0.258)	1.137	-
Greek Membership	-0.117 (0.180)	0.889	-
Athletics	0.168 (0.395)	1.182	-
Attractiveness	-0.111 (0.153)	0.895	-
Power-Control (Blood & Wolfe)	-0.028** (0.09)	0.973	**0.413**
Imitation	0.017 (0.021)	1.017	-
Differential Reinforcement	0.048 (0.043)	1.049	-
Differential Association	0.169* (0.047)	1.184	**0.470**
Definitions	-0.107** (0.036)	0.899	**0.363**
Constant	3.072 (2.094)	21.593	-
Number of cases	361		
Nagelkerke R^2	0.162 (16.2%)		
-2 Log Likelihood (goodness of fit)	449.734		

* p < .001; ** p < .01, p < .05
Note: Model chi-square = 46.497; Significance = .05; Percentage of outcomes predicted correctly without IVs, 55.4%. Percentage corrected predicted with IVs, 65.1%

Model 3: Psychological Perpetration of Violence

Since previous studies compared only the physical use of aggression by assessing data from one of the five CTS2 subscales, the physical violence subscale, the current approach analyzes the effect between psychological perpetration and the independent variables. Research on social learning theory and psychological abuse is limited.

However, Harned (2002) has found psychological abuse occurs more frequently (upwards of 80%) than physical abuse (upwards of 22%) in intimate relationships. This increase in psychological abuse, with the limited relationships found between physically perpetrated abuse and social learning theory, has prompted the approach of analyzing the measures associated with social learning theory against the dependent variables, psychological abuse perpetrated and psychological abuse victimized.

The findings show mixed support for social learning theory in association with respondent's self report of using psychological violence against a partner. Only four variables were found to be statistically significant in relation to the dependent variable psychological abuse perpetrated. These four were differential association, Greek membership, gender, and imitation. However, two of the four measures of social learning theory (differential association and imitation) have reached statistical significance. The R^2 for the measure is 17.1%.

The dependent variable (perpetrated psychological violence) was recoded 0= no acts of violence, 1= any act of violence. The results from the binary logistic regression analysis are below. An analysis of the data depicts an n of three hundred and sixty-one (N=361) (see Table 17). The model predicts correctly that 83.4% of the time, when no independent variables are considered, the respondent will have one act of psychological perpetration of violence. When controlling for the independent variables, the odds of perpetration of psychological violence depict a minimal change (see Table 17). This increase is much smaller than the change in physical perpetration and physical victimization, but it still represents the independent variables have an effect on the dependent variable psychological perpetration of violence.

The chi-square for the perpetrated psychological violence model is 38.510. This requires a rejection of the null hypothesis that the slopes or R^2 are equal to zero for this model. The amount of variance explained by the independent variables within the dependent variable is 17.1%. In the current model, roughly 17% of the variation is explained by the addition of the descriptive variables and the social learning and power-control independent variables.

Using the table below, one can accurately predict the likelihood of perpetrating 0=no acts or 1= any act of psychological abuse. The results of the model are an 83.4% prediction of at least one act of psychological abuse when no independent variables are considered. The addition of the independent variables increases the prediction rate of 84.5%. This is an increase of 1.1%. The addition of the independent variables increases the accuracy of predicting the likelihood of perpetrating one act of psychological abuse by only 1%. Although four variables are found to be statistically significant predictors of psychological perpetration, the overall strength of the model is very weak. Once more, the addition of the independent variables has very little effect on predicting future psychological abuse.

These findings are not surprising. Analysis of psychological perpetration illustrated that over 300 of the 361 respondents surveyed have used psychological violence. The data suggest that many of the respondents have used psychological violence, but the majority have perpetrated psychological violence only a few times or less in last year. The findings suggest the high rate of perpetrated psychological violence creates a problem with accurately depicting more violence by adding independent variables.

The log odds of the constant for the current model is .939 when all independent variables equal zero. Once more, since the current model uses AGE as an independent variable, the strength of the constant is minimal. Only four of the ten independent variables are statistically significant. Gender, Greek membership, total differential association, and imitation are the only four significant variables. Gender did reach statistical significance for perpetrated physical violence. Gender has again reached statistical significance for perpetrating psychological abuse. The association between physical perpetration and psychological perpetration remains an area of inquiry with intimate partner research. Does psychological abuse predict future physical perpetration of violence? The current study (see previous hypotheses) supports the belief of a relationship between the two types of violence. However, further research is needed to determine the predictability of psychological abuse on physical abuse.

When statistically significant for the current model and model 1, gender has been the strongest predictor of perpetration of violence. For the current model, a one-unit increase in gender (from male to female) results in an 0.787 increase in the natural log odds of perpetrating psychological abuse. The probability of predicting psychological perpetration increases when gender is taken into consideration. Women were significantly more likely to perpetrate psychological violence upon an intimate partner. This expected percentage change increases by 119% when gender is considered. It should be noted for Model 1 and Model 3 (perpetration of physical and psychological violence) female perpetration of violence is predicted more than male perpetration of violence. The relationship between perpetration of physical and psychological violence for the current

study exemplifies the role women play in intimate partner abuse. These data suggest more research should concentrate on the role women play in perpetrating violence.

The variable of Greek membership is found statistically significant (0.005). A one-unit increase in Greek membership (from not a member to a member) results in a -0.773 decrease in the log odds of perpetrated psychological violence. This indicates Greek membership results in a decrease of the odds (51.9%) of psychological perpetration of violence. Therefore, members of the Greek society are less likely to perpetrate psychological violence. Male-support theorists argue that tight social groups occupied by males create breeding grounds for learning violence. However, the two previous models have found no support for Greek membership and physical violence, and the current model illustrates the odds of psychological perpetration actually "decrease" with Greek membership. It should be noted that very few respondents of the current study self-reported as Greek members, therefore conclusions are limited.[18]

Past social learning research has found little support for imitation in predicting future intimate partner violence (See Sellers et al., 2003). Predominantly, all intimate partner research has concentrated on physical perpetration and victimization. One important addition to the current study is the examination of the role social learning variables play in association with psychological abuse. The current study found statistical significance for two social learning variables in accordance with psychological perpetration. Imitation and differential association are statistically significant at the .05 level.

[18] Greek Membership accounted for 14% of the 361 respondents. Male and female respondents self-identifying as Greek members are included in this percentage.

A one-unit increase in imitation (zero imitation to increased imitation) results in an 0.067 increase in the log odds of perpetrated psychological abuse. For the current model, an increase in the number of negative role models one may imitate perpetrating intimate violence, the more likely one is to perpetrate psychological violence (7% expected percentage change). The relationship between imitation and psychological perpetration of abuse is relatively low. The most surprising result is the positive association between imitation and psychological abuse, and the negative association between Greek membership and psychological abuse. Although the relationship between these two independent variables and the dependent variable is low, the results oppose the traditional beliefs of male-support theorists (imitation and males in social networks).

Total differential association is significant at the 0.05 level (0.009). A one-unit increase in differential association results in a 0.166 increase of the log odds of psychological perpetration. Respondents who experienced more association with negative peers and family were significantly more likely to perpetration psychological violence (expected percentage change 18%). Peers, family, and social groups, continue to be the strongest predictors of physical and psychological abuse among the social learning variables. From the current data, one could make the assumption that predicting future intimate partner abuse may be more of "who" we associate with more, and less "where", or "how" these actions are learned.

The results demonstrate one important conclusion: as the number of total friends and family holding negative views of violence increase, the percentage of perpetrated psychological violence increases for the respondents. This also supports the notion that perpetrated violence is learned through peer association and how one's views of violence

are reinforced. Differential association has been the only variable found statistically significant for all three group models. Furthermore, differential association has been the strongest predictor of all four social learning models.

Table 17 *Binomial Logistical Regression Analysis of Psychological Perpetration of Violence*

Variable	b (SE)	odds ratio	| b(σ_x) |
Age	0.108 (0.103)	1.114	-
Gender	0.787*** (0.349)	2.197	**0.393**
Greek Membership	-0.773*** (0.330)	0.481	**0.457**
Athletics	-0.919 (0.656)	0.399	-
Attractiveness	0.104 (0.200)	1.110	-
Power-Control (Blood & Wolfe)	0.013 (0.012)	1.013	-
Imitation	0.067*** (0.030)	1.070	**0.392**
Differential Reinforcement	-0.028 (0.061)	0.972	-
Differential Association	0.166** (0.063)	1.180	**0.461**
Definitions	-0.027 (0.048)	0.974	-
Constant	0.939 (2.978)	2.557	-
Number of cases	361		
Nagelkerke R^2	0.171 (17.1%)		
-2 Log Likelihood (goodness of fit)	286.258		

* p < .001; ** p < .01, p < .05
Note: Model chi-square = 38.510; Significance = .001; Percentage of outcomes predicted correctly without IVs, 83.4%. Percentage corrected predicted with IVs, 84.5%

Model 4: Psychological Victimization of Violence

The current model for psychological victimization is very weak. The model predicts correctly that 83.9% of the time, when no independent variables are considered,

the respondent will have one act of psychological perpetration of violence. When controlling for the independent variables, the odds of perpetration of psychological violence does not change (see Table 18). The model is very weak for predicting future psychological victimization taking the ten independent variables into consideration. A brief explanation of the findings is below. The findings observed demonstrate mixed support for social learning theory in association with respondents' self reported psychological victimization of violence.

Only one variable was found to be statistically significant in association with the dependent variable psychological victimization. Differential association is statistically significant at the 0.01 level. For the current model, respondents who differentially associate with negative peers and family members are more likely than those respondents who associate with less negative peers and family (19.3% expected percentage change) to become victims of psychological abuse. Once again, differential association is the strongest predictor of violence. The additional 9 independent variables fail to attain statistical significance. The R^2 for the model is 11.5%. The explained variance for the victimization models is much lower than the models for perpetrating violence. Therefore, it may be argued that social learning and power-control variables are a better explanation of perpetration of violence as opposed to explaining victimization of violence.

Sellers et al. (2003) found an increase in the involvement of intimate partner violence as the proportion of peers using violence against partners increased. This coincides with the findings for the above models. Sellers et al. (2003) also found two additional variables significant; imitation of peers (failed to attain significance in three of the four models) and anticipated costs (differential reinforcement) (measured as

costs/rewards for this measure and failed to attain statistically significance for all four models). These findings do not "fully" support the previous findings of Sellers et al. (2003), and produce mixed support for Akers' four components of social learning theory. An additional examination of these findings will be addressed in the next chapter.

Table 18 *Binomial Logistical Regression Analysis of Psychological Victimization of Violence*

Variable	**b (SE)**	**odds ratio**	**$\lvert b(\sigma_x) \rvert$**
Age	0.096 (0.103)	1.100	-
Gender	0.277 (0.339)	1.319	-
Greek Membership	-0.267 (0.260)	0.766	-
Athletics	-0.484 (0.581)	0.616	-
Attractiveness	-0.017 (0.205)	0.983	-
Power-Control (Blood & Wolfe)	0.007 (0.012)	1.007	-
Imitation	0.057 (0.029)	1.059	-
Differential Reinforcement	0.012 (0.061)	1.012	-
Differential Association	0.177* (0.064)	1.193	**0.492**
Definitions	-0.005 (0.046)	0.995	-
Constant	-0.324 (2.864)	0.724	-
Number of cases	361		
Nagelkerke R^2	0.115 (11.5%)		
-2 Log Likelihood (goodness of fit)	292.998		

* $p < .001$; ** $p < .01$, $p < .05$
Note: Model chi-square = 25.239; Significance = .001; Percentage of outcomes predicted correctly without IVs, 83.9%. Percentage corrected predicted with IVs, 83.9%

CHAPTER V
DISCUSSIONS AND CONCLUSIONS

One recurring debate concerning intimate partner and domestic violence research is the atheoretical design of much of the research. The most prominent research of the past two decades stemmed from intergenerational transmission theory developed by Murray Straus. Past research (see O'Keefe, 1998; Widom, 1989) using intergenerational transmission theory has attempted to explain the link between criminal parents and criminal children. Arguably, one can see the similarities between the core beliefs of intergenerational transmission theory and the measure of imitation in social learning theory. Using the current approach, a more in-depth understanding of the possible explanations for perpetrating and becoming a victim of violence are evaluated.

Sellers et al. (2003) found imitation to be a significant predictor of intimate partner violence. The authors concluded that imitation, as statistically significant, "provides evidence consistent with the predictions of intergenerational transmission theory, in that witnessing violence by others directly influences one's own aggressive behavior" (p. 121). However, Akers (2000) argues, imitation "is more important in the initial acquisition and performance of novel behavior than in the maintenance or cessation of behavioral patterns once established" (p. 89). Therefore, imitation may only explain the initial act of violence at a young age, and may not be as strong an indictor of future violence as the other three remaining measures of social learning theory. This could explain why most support for social learning theory has been discovered in what is sometimes labeled "minor crime". Acts such as smoking, underage drinking, swearing,

and academic dishonesty have traditionally found support for imitation and social learning variables.

However, one important distinction between "minor crime" studies and the current approach is the age group of the research population. The current approach surveyed college-aged individuals, as did Sellers et al.(2005; 2003). The are two differences between pre-pubescent/high-school-aged respondents and young adults attending college. First, the environment of college respondents is most likely free from daily parental influence. Secondly, the age group of 18-24 is stereotypically viewed in society at the beginning of young adulthood, and influential decision-making may be less frequent. This could explain why the social learning measure for imitation fails to attain significance. Sellers et al. (2003) even states, "it is rare that the imitation variable is even included in tests of social learning theory and rarer still that the variable achieves statistical significance when other social learning variables are included in the model" (p.121). This is due, in part, to initial imitation beginning at a young age (Akers, 2000) and the other three measures of social learning theory subsuming imitation in the overall model.

The current approach found limited support for imitation as a predictor of intimate partner violence. The measure failed to attain statistical significance for three of the four models and was often one of the weaker measures of social learning theory and physical and psychological abuse. Furthermore, reviewing Hypotheses One through Four, support was found for increased perpetration of physical violence in a relationship when peers and siblings were included in the model. These data demonstrate a more convincing argument for differential association of peers and siblings (individuals closer to the

respondent's age) as opposed to imitation when predicting violence in intimate relationships. This contradicts the core methodology of intergenerational transmission theory.

The next theory of interest to evolve in relation to intimate partner violence was male support theory of DeKeseredy and colleagues (DeKeseredy & Kelly, 1995; DeKeseredy & Schwartz, 1998) Male-support theory demonstrates a relationship between male influences of power and the perception of females as submissive in a patriarchal society (DeKeseredy & Schwartz, 1998). In revisiting the most recent and comprehensive examination of social learning theory and intimate partner violence by Sellers et al. (2003), similarities between male-support theory, Sellers' findings, and the findings of the current study are present. Sellers et al. (2003) found peer association or differential association as the strongest predictor of physically perpetrated violence measured by the self-reported physical aggression subscale of the CTS2. The current approach has also concluded differential association (peer association) is most highly correlated with physical and psychological perpetration of violence in intimate relationships.

Conversely, in contrast of male support theory, athletic involvement and Greek affiliation show very little support for increased perpetration of violence in intimate relationships. Again, respondents involved in athletics self-reported 28% violence for the sample (only 35 athletes responded) and the overall self-reported acts of violence when controlling for athletics is nearly 40%. The failure to support the claims of male support theory is also present in the rate of violence by gender. Women in the current research self-reported perpetrating 94 acts of violence as compared to 55 self-reported acts of violence by their male counterparts (see Table 19). Women were much more likely to

perpetrate physical and psychological violence than their male counterparts. This contradicts male support theory's claim that male social networks foster violence.

However, these findings coincide with opponents of the CTS and CTS2 who argue the survey does not control for self-defense as a form of violence and over-represents female-perpetrated violence because of this flaw. The current research included the survey item "if you used violence against a partner, did the partner use violence first" (see Table 20). Although not all respondents who self-reported perpetrating violence answered "yes" or "no" to this item, of those who did, women were much more likely to perpetrate violence against a partner without prior violence from a partner (26 females, 7 males). It should be noted a large percentage of respondents who self-reported perpetrating physical violence answered "never used physical actions against a partner[19]. The current data support differential association between groups, meaning violent peer associations increase violence. However, it also depicts more violence by non-formal groups (non-athletes), and increased perpetrated self-reported violence by female respondents without prior victimization. This is in direct contradiction with the core concepts of male support theory.

Table 19
Gender and Violence When 0= No Acts of Violence and 1= Any Self-reported Act of Violence

Gender	**Violence 0 = no violence**	**Violence = 1 any report of perpetrated violence**	**Total**
Male	114	55*	169
Female	98	94**	192
Total	212	149	361

* 32.5% of males self-reported perpetrating physical violence
** 48.9% of females self-reported perpetrating physical violence

[19] Results from Table 20 should be interpreted cautiously. Although females self-reported initial perpetration of violence more than males, 78% of males, and 53% of females failed to answer "yes" or "no" for the item after self-reporting perpetrated physical violence with the CTS2 portion of the survey.

Table 20

Gender and Partner Violence When 0= No Acts of Violence and 1= Any Self-reported Act of Violence

Gender	**Did partner use physical actions first**	**Violence 1= any report of perpetrated violence**
Male	No	7
Female		26
Male	Yes	5
Female		18

* Several respondents who self-reported perpetrating physical violence on the CTS portion answered "Never used physical action against a partner" for this item (93 of 149) (43 of 55 males, 50 of 94 females)

The third theory to evolve, and the theoretical design for the current study, is social learning theory. Although components of social learning theory have been addressed in research over the years in relation to witnessing parental violence, peer association, has produced the strongest results. The current study used seven hypotheses that differentiated from the Sellers' study. However, the model, with the exception of the use of the psychological scale, mirrored Sellers et al., 2003 study. The Sellers' study accounted for 33% of the variance in prevalence of courtship violence and found three of five measures of social learning theory to attain statistical significance. These measures are imitation, peer association (coded as differential association (1) in the current study), and anticipated costs (differential reinforcement (1) for the current study) (Sellers et al., 2003). Definitions and anticipated rewards (coded as one variable, cost/rewards for the current approach) failed to attain statistical significance (Sellers et al., 2003).

The strongest predictor of intimate partner violence in the current model is differential association (1) (peer associations). A factor analysis for the three measures of differential association result in only one factor. Therefore, the three measures of differential association were combined to create one variable for the current study. The model represented differential association as being the strongest indicator of future

perpetration of physical and psychological violence. This is similar to the findings of Sellers et al. (2005; 2003). Examining the relative effects of the social learning variables, only minimal support was established for definitions and imitation. Differential reinforcement failed to reach statistical significance. The overwhelming support for peer associations as the strongest predictor is found in the current study and additionally in the Sellers' studies of 2003 and 2005. These results raise two noteworthy question: Is peer association the primary explanation for future perpetration of physical and psychological violence, and to what degree do the other models of social learning theory provide explanatory power?

The social learning model estimated in the current study accounts for approximately 27% of the variance in the probability of perpetrating violence in an intimate relationship. Previous research has explained 60% of the variance for minor crimes (Sellers et al., 2003). It is important to note the variance explained in the current research is much higher than most theories attempting to explain a relationship with intimate partner violence. The findings show minimal support for male support theory. However, there is little support found to corroborate the theoretical tone of intergenerational transmission theory.

It should also be noted the data represent similar findings of Sellers et al. 2003. Sellers' approach fails to attain statistical significance regarding measures of reinforcement of rewards. "As often is case in measures of differential reinforcement in prior social learning research, consequences of deviant behavior which may be viewed as positive to some may hold little value to others" (Sellers et al., 2003, p.122). The possibility of omission of costs and rewards in the current study may explain why the

variable fails to attain significance. What is of importance to a twenty year old male sophomore from a rural area may not be consistent with what is of importance to his urban counterpart. These inconsistencies in finding reliable measures over time could have a negative effect on data analysis. As with the measure for definitions, in the months prior to administering the survey, a violent domestic-related crime was reported between two young adults within close proximity to the research site. Due to the high volume of coverage and public outcry for the severity of violence perpetrated, this event may have skewed the perceptions of definitions favorable to violation of law and how these acts are reinforced.

A finding in the current research similar to previous research using the self-reported perpetrated physical violence subscale of the CTS2 is that female respondents self-reported perpetrating more violence than their male counterparts. This measure holds true even when the measure of self-defense is controlled. This demonstrates that women who report perpetrating violence do so even when a partner has not initiated the violence. This is a recurring trend when measuring perpetrated violence in association with gender using the CTS2 and has been challenged by those who feel men are the more likely aggressors.

However, one important finding from the current approach which may substantiate the findings of the CTS2 is of the four models run (Physical perpetrated, Physical victimized, Psychological perpetrated, Psychological victimized), two models produced gender as a statistically significant measure. These models were self-reported perpetrated physical and psychological violence. Females were found to perpetrate at a higher rate than their male counterparts. Future research should pay particular attention to

the role of gender in intimate relationships. The possibility of conducting qualitative research to better enhance "why" the violence was initiated may help in explaining the role gender plays with perpetration of physical violence in intimate relationships.

The most interesting result of the current study is found in the table below (see Table 21). For the current study, 360 of the 361 respondents answered the items pertaining to self-reported victimization of physical violence. Of these individuals, 152 of reported at least one incident of self-reported physical victimization at the hands of a current or past intimate partner as measured by the CTS2. Surprisingly, only 49 of the 152 individuals who reported at least one incident of victimization at the hands of an intimate partner considered themselves a victim of intimate partner violence. The final item of the survey asked, "If you were a victim of any physical actions (such as hitting, kicking, slapping, punching, etc.) in a current or past relationship, where did the physical action(s) usually occur?" Responses were 1 through 7 (coded as 1 on table 21) for the item listed places that victimization may have occurred (including other). Response 8 listed "not a victim" for the final response category (coded as 0 for table 21). A majority of the individuals who reported at least one form of physical victimization (103 of 152) of violence at the hands of a partner did not consider this physical violence victimization. Further research is warranted in this area to address such a finding.

No rational explanation is derived from the current findings, other than personal perceptions of what one views as "domestic or intimate violence." The possibility that respondents, and victims of violence, neutralize the behavior as deserved, a one-time event, an accident, or alcohol related, are possible conclusions for the findings as well.

Due to this disturbing result, future research should concentrate exclusively on the examination of this observable fact.

Table 21
Self-report of "At Least" One Act of Victimization of Violence and Response to if One Self-reports as a "Victim" of Violence

Victim of At Least One Violent Act	**Self-Report as no Victimization**	**Self-Report as Victim**	**Total**
No	183	15	198
Yes	103	49	152
Total	286	64	350

The variables for power-control theory fail to reach statistical significance or produced very weak predictable measures for all four models. A factor analysis produced an eigenvalue representative of one factor (approaching two). The addition of a variable measuring attractiveness of a partner and the adapted Blood and Wolfe Scale both failed to produce a desired result in support for Hypothesis Seven as well. Power-control theory was found to provide very little explanatory power for this model. One explanation for this may be the adaptation of the original Blood and Wolfe Scale. The original scale was designed to measure power-control with married couples. The items were redesigned to attempt to address those decisions deemed important in a dating relationship. Future research may need to further address "what" are deemed the most important decisions that intimate couples face in their relationships and develop a more detailed measure of power-control from this adaptation of Blood and Wolfe.

Limitations

An attempt was made to obtain a sample representative of a typical fall semester student population. The sample collected was over-represented by freshman (n=169 when data collapsed by self-reported completed college credits) and under-represented junior and seniors (n= 62, n=46). There were several explanations for this occurrence. First,

freshmen and sophomores over-represented course listings in the fall course catalog for 300 and 400 level courses. Secondly, seventy professors received an initial letter of interest in an attempt to obtain access to a designated class. Only nineteen responses were obtained (15 positive, 4 negative). Due to travel, adjusting class time, and inability for the primary faculty member to be present in the class[20], two courses were deleted from the sample. Thirteen courses were used for data collection. Introductory 100 and 200 level courses resulted in the majority (61.5%) of the courses used for data collection. These two limitations resulted in a much higher incidence of freshmen and sophomore respondents for the current study. However, percentages of age groups sampled for the most part were equal (see Table 23).

Table 22
College Credits

Credits	Frequency	Percent	Cumulative Percent
1.00	169	46.8	46.8
2.00	84	23.3	70.1
3.00	62	17.2	87.3
4.00	46	12.7	100.0
Total	361	100.0	

Credits were collapsed for this measure of class rank
0-30 = 1, 31-60 = 2
61-90 = 3, 91 > = 4

Table 23
Age

Age	Frequency	Percent	Cumulative Percent
18	73	20.2	20.2
19	97	26.9	47.1
20	77	21.3	68.4
21	56	15.5	83.9
22	32	8.9	92.8
23	15	4.2	97
24	7	1.9	98.9
25	4	1.1	100.0
Total	361	100.0	

[20] Access was granted to one course, but the primary faculty member was to be out of town for the class period. University guidelines require a full time faculty member to be present if any additional research is collected in a course setting.

An additional limitation was found with the measure of differential reinforcement. One measure of differential reinforcement (outcome of violence) was omitted. Although a factor analysis resulted in all three measures of differential reinforcement measuring one factor, the alpha level for the measure of differential reinforcement improves greatly when this variable is removed. In running additional statistical analyses, it was determined due to a recording issue, misunderstanding the survey item, or possibly a coding scheme, the variable was not a reliable measure of differential reinforcement for this sample (see Table 24). Future research should address this issue to determine if this result was abnormal for this sample or potentially a statistical flaw.

Table 24
Cronbach's Alpha Reliability Analysis for Differential Reinforcement Variables

Measures of Differential Reinforcement	**Cronbach's Alpha**
Differential Reinforcement 1	.671
Differential Reinforcement 2	.718
Differential Reinforcement 3 (out come of violence used/never)	-.467 (a)

a The value is negative due to a negative average covariance among items. This violates reliability model assumptions.

An additional limitation of the current approach is that the survey recorded no measure for the GPA of the respondent. Although grade point average may not have a statistical influence with perpetrating physical violence, an additional stress related life event (poor GPA) would be interesting to evaluate. Measures of power-control should be adjusted in the future in order to obtain a better "grasp" of important decisions in intimate relationships.

There were two similar limitations that may have affected the measure for definitions. The first was a major incident of intimate partner violence occurring months before administering the survey instrument. This event alone could drastically alter

respondents' perceptions of intimate partner violence. In the months and year prior to administering the survey, several projects begun in association with university provided facilities and discussion sessions involving rape, sexual assaults, and domestic violence on campus. The media coverage by television and radio, newspapers, campus flyers, and university email, may have made respondents more conscious of the dangers of dating violence and may have altered perceptions of abuse. Although this is a possible validity concern, similar results are reported for the current measure in comparison to a university measured years prior and in a different geographical region. Although this is referred to as a limitation, it is very likely these events had little or no effect on the sample population.

Conclusion

In summary, the current study provides additional support for social learning theory in explaining intimate partner violence. Although each of the four models explains upwards of 20% of the variation in the measure, differential association (peer association) continues as the only significant (approaching significance) measure for all four models. This sample illustrates that the number of violent peers is the most fundamentally sound variable for perpetrating and becoming the victim of both physical and psychological violence in intimate relationships.

Based on suggestions from previous literature (see Sellers et al., 2003), gender was a variable of particular note. One aspect of the current research was to determine the effect of gender on physically perpetrating violence. However, it was particularly important to assess the role of gender in association with perpetrating psychological abuse as well. When placing gender in the model for victimization of physical and

psychological abuse, gender fails to attain statistical significance. However, one measure holds true in the current study, as gender increases (from male to female) the likelihood of perpetrating physical and psychological violence increases. Although the CTS2 has been criticized for over-reporting female perpetration of violence, the current approach controlled for this with additional measures. Women were found to be more violent and report initiating violence without prior victimization from a partner more often as well. Future research should address the importance of gender in intimate partner violence. Policy concerns associated with "who" perpetrates violence may help reduce victimization of both genders with college-aged individuals and the general population.

Particular attention should be paid to "age" and "age of onset" in future research of intimate partner abuse. Resent research (see Farrington & Welsh, 2007; Losel & Beelmann, 2003) has shown encouraging results for early developmental programs aimed at crime prevention education for children and youth (Losel, 2007). Programs implemented for families, preschools, middle schools, social services, and criminal justice settings, aimed at early intervention have gained increased support over the traditional correctional education and rehabilitation programs of the past (Losel, 2007). Developing and studying programs designed to reverse negative stimuli imitated and reinforced through interaction with family and eventually peers could advance understanding of social learning theory and intimate partner violence. Furthermore, a better understanding of age of onset (when an individual first becomes a victim or perpetrates intimate partner violence) may provide for a better perception of the phenomena.

In conclusion, colleges and universities should address the importance of early intervention in an attempt reduce the problem before it escalates. Addressing the correlation between age and violence (possibly occurring at a younger age or before college) could permit colleges to work with area high schools to promote awareness and allow for an overlap in student participation in campus programs. The inconsistencies in recognizing (self-reporting) one's self as a victim in the current study is alarming and warrants further investigation in the future. Expanding knowledge of theoretical explanations, gender and crime, and the perception of what constitutes physical or psychological violence are three avenues worth addressing in an attempt to broaden the understanding of the phenomena of intimate partner violence.

Table 25
Internal Consistency Reliability for CTS2 Subscales

Item	***Straus et al. (1996) alpha***	***Bell (2007) alpha***
Negotiation	.86	.81
- Explained side of argument	.74	.80
- Suggested compromise to an argument	.70	.91
- Showed partner cared	.69	.87
- Said could work out problem	.63	.93
- Agreed to try partner's solution	.62	.94
- Respected partner's feelings	.58	.92
Psychological	.79	.83
- Insulted or swore at partner	.66	.81
- Shouted at partner	.65	.82
- Stomped out of room	.61	.82
- Threatened to hit or throw something at partner	.52	.80
- Destroyed something of partners	.47	.79
- Did something to spite partner	.46	.81
- Called partner fat or ugly	.42	.81
- Accused partner of being a lousy lover	.35	.82
Physical	.86	.89
- Kicked, bit or punched partner	.70	.81
- Slapped partner	.70	.70
- Beat up partner	.65	.68
- Hit partner with something	.62	.81
- Choked partner	.61	.66
- Slammed partner against wall	.60	.50
- Grabbed partner	.56	.88
- Threw something at partner that could hurt	.52	.81
- Used knife or gun on partner	.52	.83
- Pushed or shoved partner	.51	.82
- Twisted partner's arm or hair	.47	.80
- Burned or scalded partner on purpose	.39	.66
Sexual Coercion	.87	.75
- Used force to make partner have sex	.74	.81
- Used threats to make partner have anal sex	.73	.34
- Used force to make partner have anal sex	.70	.79
- Insisted on anal sex (no force)	.69	.76
- Used threats to make partner have sex	.58	.86
- Insisted on sex (no force)	.54	.74
- Insisted on sex without a condom (no force)	.34	.82
Injury	.95	.86
- Partner passed out	.92	.88
- Partner went to doctor for injury	.92	.89
- Partner needed to see doctor but did not	.86	.71
- Partner felt pain the next day	.79	.81
- Partner had sprain or bruise you could see	.77	.83
- Broken bone (original Straus measure changed on current CTS).	.74	.80

REFERENCES

Ahmad, F., Riaz, S., Barata, P., & Stewart, D. (2004). Patriarchal beliefs and perceptions of abuse among South Asian immigrant women. *Violence Against Women, 10(3)* 262-282.

Akers, R., (1989). A social behaviorist's perspective on integration of theories of crime and deviance. In S. Messner, M. Drohn, & A. Liska (Eds.) *Theoretical integration in the study of crime and deviance: Problems and prospects.* Albany, NY: SUNY Press.

Akers, R., (1989). Social learning and alcohol behavior among the elderly. *Sociological Quarterly, 30,* 625-663.

Akers, R. (1998). *Social learning and social structure: A general theory of crime and deviance*. Boston: Northeastern University Press.

Akers, R. (2000). *Criminological theories: Introduction, evaluation, and application (3rd Ed.)*. Los Angeles: Roxbury Publishing Company.

Akers, R. & Sellers, C. (2004). *Criminological theories: Introduction, evaluation, and application (4th ed.).* Los Angeles: Roxbury Publishing Company.

Allan, C., & Straus, M. (1979). Resources, power, and husband-wife violence. In M. Straus, and G. Hotaling (Eds), *The social causes of husband-wife violence* Minneapolis, MN: University of Minnesota Press.

Arriaga, X., & Foshee, V. (2004). Adolescent dating violence: Do adolescents follow in their friends' or their parents' footsteps? *Journal of Interpersonal Violence, 19(2)*162-184.

Bandura, A. (1973). *Aggression: A social learning analysis.* Englewood Cliffs, NJ: Prentice Hall.

Barling, J., O'Leary, K., Jouriles, E., Vivian, D., & MacEwen, K. (1987). Factor similarity of the conflict tactics scales across samples, spouses, and sites: Issues and implications. *Journal of Family Violence, 2,* 37-53.

Bethke, T., & DeJoy, D. (1993) An experimental study of factors influencing the acceptability of dating violence. *Journal of Interpersonal Violence, 8(1), 36-51.*

Biddle, B., Bank, B., & Marlin, M. (1980). Parental and peer influence on adolescents. *Social Forces*, *58*, 1057-1079.

Bletzer, K., & Koss, M. (2006) After-rape among three populations in the southwest: A time of mourning, a time for recovery. *Violence Against Women, 12(1),* 5-29.

Blood, R., & Wolfe, D. (1960). *Husbands and wives.* Glencoe, IL: Free Press.

Blossfeld, H. (1995). *The new role of women: Family formation in modern societies.* Boulder, CO: Westview Press.

Boeringer, S., Shehan, C., & Akers, R. (1991). Social contexts and social learning in sexual coercion and aggression: Assessing the contribution of fraternity membership. *Family Relations, 40,* 558-564

Bureau of Justice Statistics. (1996). *Bureau of Justice Statistics: National crime victimization survey: Preliminary reports* (NCJ 158022). Washington, DC: Government Printing Office.

Cairns, R., & Cairns, B. (1994). *Lifelines and risks: Pathways of youth in our time.* Cambridge, England: Cambridge University Press.

Carr, J., & VanDeusen, K. (2002). The relationship between family of origin violence and dating violence in college men. *Journal of Interpersonal Violence,17(6),* 630-646.

Catalano, S. (2006). *Bureau of Justice Statistics: Intimate partner violence in the United States.* (NCJ 210675) Washington, DC: Government Printing Office.

Caulfield, M., & Riggs, D. (1992). The assessment of dating aggression: Empirical evaluation of the conflict tactics scale. *Journal of Interpersonal Violence, 7,* 549-558.

Chapple, C. (2003). Examining intergenerational violence: Violent role modeling or weak parental controls? *Violence and Victims, 18(2),* 143-158.

Chen, P., & White, H. (2004). Gender differences in adolescent and young adult predictors of later intimate partner violence. *Violence Against Women, 10(11),* 1283-1301.

Chesney-Lind, M. (1989). Girls' crime and woman's place: Toward a feminist model of female delinquency. *Crime & Delinquency, 35*, 5-29.

Cohen, A (1955). *Delinquent Boys.* New York, NY: Free Press of Glencoe.

Cogan, R., & Ballinger, B., (2006). Alcohol problems and the differentiation of partner, stranger, and general violence. *Journal of Interpersonal Violence, 21(7),* 924-935.

Cottrell, B., & Monk, P. (2004). Adolescent-to-parent abuse. *Journal of Family Issues, 25(8),* 1072-1095.

Crosset, T., Benedict, J., & McDonald, M. (1995). Male student-athletes reported for sexual assault: A survey of campus police departments and judicial affairs offices. *Journal of Sport and Social Issues*, 19(2), 126-140.

Crosset, T., Ptacke, J., McDonald, M., & Benedict, J. (1996). Male student-athletes and violence against women: A survey of campus judicial affairs offices. *Violence Against Women, 2(2),* 163-179.

DeKeseredy, W. (1990). Male peer support and women abuse: The current state of knowledge. *Sociological Focus, 23,* 129-139.

DeKeseredy, W. (2000). Current controversies on defining nonlethal violence against women in intimate heterosexual relationships. *Violence Against Women, 6(7),* 728-746.

DeKeseredy, W., & Kelly, K. (1993). The incidence and prevalence of woman abuse in Canadian university and college dating relationships. *Journal of Human Justice, 4,* 25-52.

DeKeseredy, W., & Kelly, K. (1995). Sexual abuse in Canadian university and college dating relationships: The contribution of male peer support. *Journal of Family Violence, 10(1),* 41-53.

DeKeseredy, W., & Schwartz, M. (1998). *Women abuse on campus: Results from the Canadian national survey.* Thousand Oaks, CA: Sage Publishing.

DeKeseredy, W., Schwartz, D., & Alvi, S. (2000). The role of profeminist men in dealing with woman abuse on the Canadian college campus. *Violence Against Women*, 6(9), 918-935.

DeKeseredy, W., Schwartz, M., Fagen, D., & Hall, M. (2006). Separation/Divorce sexual assault: The contribution of male support. *Feminist Criminology, 1(3)*, 228-250.

DeMaris, A. (1987). The efficacy of a spouse abuse model in accounting for courtship violence. *Journal of Family Issues, 8(1)*, 291-305.

DeMaris, A. (1992). *LOGIT Modeling, Practical Applications*. Newbury Park, CA: Salem Press.

DiBlasio, F., & Benda, B., (1990). Adolescent sexual behavior: A multivariate analysis of a social learning model. *Journal of Adolescent Research 5(4),* 449-465.

Doumas, D., Margolin, G. & John, R. (1994). The intergenerational transmission of aggression across three generations. *Journal of Family Violence, 9*, 157-175.

Dutton, D., & Starzomski, A. (1997). Personality predictors of the Minnesota power and control wheel. *Journal of Interpersonal Violence, 12(1),* 70-82.

Edin, K., Lalos, A., Hogberg, U, & Dahlgren, L. (2008). Violent men: Ordinary and deviant. *Journal of Interpersonal Violence, 23(2),* 225-244.

Farrington, D., & Welsh, B. (2007). *Saving children from a life of crime.* Oxford, UK: Oxford University Press.

Feerick, M., & Haugaard, J. (1999). Long-term effects of witnessing martial violence for women: The contribution of childhood physical and sexual abuse. *Journal of Family Violence, 14(4),* 377-397.

Erika Davis-Frenzel (2005). *Issues in the measurement of sentence outcomes: Implications for research on sex disparities in sentencing.* Doctoral dissertation, University of Nebraska, Omaha.

Frieze, I., & McHugh, M. (1996). Power and influence strategies in violent and nonviolent marriages. *Psychology for Women, 16(4*), 449-465.

Gage, A., & Hutchinson, P. (2006). Power, control, and intimate partner sexual violence in Haiti. *Archives of Sexual Behavior, 35(1), 11-24.*

Hadjar, A., Baier, D., Boehnke, K., & Hagan, J. (2007). Juvenile delinquency and gender revisited. *European Journal of Criminology, 4(1),* 33-58.

Hagan, J., Gillis, R., & Simpson, J. (1987). Class in the household: A power-control theory of gender and delinquency. *American Journal of Sociology, 92(4),* 788-815.

Hagan, J., Kay, F. (1990). Gender and delinquency in white-collar families: A power-control perspective. *Crime & Delinquency, 36(3),* 391-407.

Hagan, J. (1988). *Structural criminology*. Cambridge: Cambridge Press & Polity Press.

Harned, M. (2002). A multivariate analysis of risk markers for dating violence. *Journal of Interpersonal Violence, 17(11),* 1179-1197.

Harper, D., & Voigt, L. (2007). Homiced followed by suicide. *Homicide Studies, 11(4), 295-318.*

Heise, L. (1998). Violence against women: An integrated, ecological framework. *Violence Against Women, 4(3),* 262-290.

Hendy, H., Weiner, K., Bakerofskie, J, Eggen, D., Gustitus, C., and Mcleod, K. (2003). Comparison of six models for violent romantic relationship in college men and women. *Journal of Interpersonal Violence, 18(6),* 645-665.

Hines, D., & Saudino, K. (2003). Gender differences in psychological, physical, and sexual aggression among college students using the revised conflict tactics scale. *Violence and Victims, 18(2),* 197-216.

Hirschi, T. (1969). *Causes of delinquency.* Berkeley, CA: University of California Press.

Hopkins, Q., & Koss, M. (2005). Incorporating feminist theory and insights into a restorative justice response to sex offenses. *Violence Against Women, 11(5),* 696-723.

Hornung, C., McCullough, B., Sugimato, T. (1981). Status relationships in marriage: Risk factors in spouse abuse. *Journal of Marriage and the Family, 43,* 675-692.

Hosmer, D. (1989). *Applied Logistic Regression.* New York, NY: Wiley Press.

Hotaling, G., Straus, M., & Lincoln, A. (1988). Violence and other crime outside the family. In M. Tonry, & L. Ohlin (Eds.), *Crime and justice: An annual review of research*. Chicago, IL: University of Chicago Press

Hotaling, G., & Sugarman, D. (1986). An analysis of risk markers in husband to wife violence: The current state of knowledge. *Violence and Victims, 1(2),* 100-124.

Houry, D., Feldhaus, K., Peery, B., Abbot, J., Lowenstein, S., Albataa-de-montero, S., & Levin, S. (2004). A positive domestic violence screen predicts future domestic violence. *Journal of Interpersonal Violence, 19(9),* 955-966

Kalmuss D., & Straus, M. (1982). Wife's marital dependency and wife abuse. *Journal of Marriage and the Family, 44,* 277-286.

Kanin, E., & Parcell, S. (1977). Sexual aggression: A second look at the offended female. *Archives of Sexual Behavior, 6*, 67-76.

Kaura, S., & Allen, C. (2004). Dissatisfaction with relationship power and dating violence perpetration by men and women. *Journal of Interpersonal Violence, 19(5),* 576-588.

Khan, H., & Cangemi, P. (2001). Social learning theory: The role of imitation and modeling in learning socially desirable behavior. *Education, 100*, 41-46.

Kirkpatrick, C., & Kanin, E. (1957). Male sex aggression on a university campus. *American Sociological Review, 22*, 52-58.

Koss, M. (1992). Defending date rape. *Journal of Interpersonal Violence, 7(1),* 122-125.

Koss, M. (2005). Empirically enhanced reflections on 20 years of rape research. *Journal of Interpersonal Violence, 20(1),* 100-107.

Koss, M., & Cleveland, I. (1996). Athletic participation, fraternity membership, and date rape: The question remains-Self-selection or different causal processes? *Violence Against Women, 2(2),* 180-190.

Koss, M. P., & Dinero, T. E. (1989). Discriminate analysis of risk factors for sexual victimization among a national sample of college women. *Journal of Consulting & Clinical Psychology, 57*(2), 242-250.

Koss, M., & Gaines, J. (1993). The prediction of sexual aggression by alcohol use, athletic participation, and fraternity affiliation. *Journal of Interpersonal Violence, 8(2),* 94-108.

Koss, M.P., Gidycz, C.A., & Wisniewski, N. (1987). Incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of Consulting and Clinical Psychology, 55*, 162-170.

Koverola, C., & Heger, A. (2003). Responding to children exposed to domestic violence: Research informing practice and policy. *Journal of Interpersonal Violence, 18(4),* 331-337.

Kwong, M., Bartholomew, K., Henderson, A., & Trinke, S. (2003). The intergenerational transmission of relationship violence. *Journal of Family Psychology, 17(3),* 288-301.

Lackey, C. (2003). Violent family heritage, the transition to adulthood, and later partner violence. *Journal of Family Issues*, 24(1), 74-98.

Langhinrichens-Rohling, J. (2005). Top ten greatest hits: Important findings and future directions for intimate partner violence research. *Journal of Interpersonal Violence,* 20(1), 108-118.

Langhinrichens-Rohling, J., Dellinger, R., Huss, M., & Kramer, V. (2004). Attributions about perpetrators and victims of interpersonal abuse. *Journal of Interpersonal Violence, 19(4),* 484-498.

Lanza-Kaduce, L. & Klug, M., (1986). Learning to cheat: The interaction of moral development and social learning theories. *Deviant Behavior, 7,* 243-259.

Lauritsen, J. (1993). Sibling resemblance in juvenile delinquency: Findings from the national youth survey. *Criminology, 31,* 387-410.

Lisak, D. (1994). Subjective assessment of relationships with parents by sexually aggressive and nonaggressive men. *Journal of Interpersonal Violence, 9*, 399-411.

Losel, F. (2007). It's never too early and never too late: Towards an integrated science of developmental intervention in criminology. *The Criminologist, 32(5),* 1-8.

Lose, F., & Beelmann, A. (2003). Effects of child skills training in preventing antisocial behavior: A systematic review of randomized experiments. *The Annals of the American Academy of Political and Social Science, 587*, 84-109.

Mahlstedt, D., & Welsh, L. (2005). Perceived causes of physical assault in heterosexual dating relationships. *Violence Against Women, 11(4),* 447-472.

Makepeace, J. (1981). Gender differences in courtship violence victimization. *Family Relations, 35,* 383-388.

Marcus, R., & Swett, B. (2003). Multiple-precursor scenarios: Predicting and reducing campus violence. *Journal of Interpersonal Violence, 18(5),* 553-571.

McCloskey, L., & Lichter, E. (2003). The contribution of marital violence to adolescent aggression across different relationships. *Journal of Interpersonal Violence, 18(4),* 390-412.

McHugh, M., Koeske, R., & Freize, I. (1996). Issues to consider in conducting nonsexist psychological research: A guide for researchers. *American Psychologist, 41(8),* 879-890.

Messerschmidt, J. (2000). *Nine lives: Adolescent masculinities, the body, and violence*. Boulder, CO: Westview Publishing.

Mihalic, S., & Elliott, D. (1997). A social learning theory model of martial violence. *Journal of Family Violence, 12(1)*, 21-47.

Mihalic, S., & Elliott, D. (1997). If violence is domestic, does it really count? *Journal of Family Violence, 12(3),* 293-311.

Miller, J. (2006). A specification of the types of intimate partner violence experienced by women in the general population. *Violence Against Women, 12(12),* 1105-1131.

Monroe, J. (2004). Getting a puff: A social learning test of adolescents smoking. *Journal of Child and Adolescent Substance Abuse, 13*, (3), 71-84.

Muehlenhard, C., & Linton, M. (1987). Date rape and sexual aggression in dating situations: Incidence and risk factors. *Journal of Counseling Psychology, 34(2),* 186-196.

Nesbit, T. (2006). What's the matter with social class? *Adult Education Quarterly, 56, 3*, 171-187.

Norgaard, J. (2005). *The measurement of attribution of battering: A review of the literature.* Retrieved March 3, 2005 from http://www.ceu-hours.com/courses/battering.html

Nguyen, T. (2006). Prevalence of male intimate partner abuse in Vietnam. *Violence Against Women, 12(8)*, 732-739.

Office of Violence Against Women (2005). Federal Violence Against Women Laws. Retrieved May 27, 2005 from http://www.ojp.usdoj.gov/vawo

O'Leary, K. D., Malone, J., & Tyree, A. (1994). Physical aggression in early marriage: Prerelationship and relationship effects. *Journal of Consulting and Clinical Psychology, 62*, 594–602.

O'Keefe, M. (1997). Predictors of dating violence among high school students. *Journal of Interpersonal Violence, 12*, 546-568.

Pan, H., Neidig, P., & O'Leary, K. (1994). Male-female and aggressor-victim differences in the factor structure of the conflict tactics scale. *Journal of Interpersonal Violence, 9(3),* 366-382.

Perry, A., & Fromuth, M. (2005). Courtship violence using couple data. *Journal of Interpersonal Violence, 20(9),* 1078-1095.

Reitzel-Jaffe, D., & Wolfe, D. (2001). Predictors of relationship abuse among young men. *Journal of Interpersonal Violence, 16(2),* 99-115.

Rennison, C. (2003). *Bureau of Justice Statistics: Intimate partner violence 1993-2001.* (NCJ 197838). Washington, DC: Government Printing Office.

Riggs, D. (1993). Relationship problems and dating aggression: A potential treatment target. *Journal of Interpersonal Violence, 8(1),* 18-35.

Rinfret-Raynor, M., Riou, A., Cantin, S., Drouin, C., & Dube, M. (2004). A survey on violence against female partners in Quebec, Canada. *Violence Against Women, 10(7)*, 709-728.

Rivera, B., & Widom, C. (1990). Childhood victimization and violent offending. *Violence and Victims, 5(1),* 19-34.

Saunders, B. (2003). Understanding children exposed to violence: Toward an integration of overlapping fields. *Journal of Interpersonal Violence, 18(4),* 356-376.

Sellers, C., & Bromley, M. (1996). Violent behavior in college student dating relationships: Implications for campus service providers. *Journal of Contemporary Criminal Justice, 12(1),* 1-23.

Sellers, C., & Cochran, J., & Winfree, L. (2003). Social learning theory and courtship violence: An empirical test. In R. Akers, & G. Jensen (Eds.), *Social learning and the explanation of crime*. New Brunswick: Transaction Publishers.

Sellers, C., Cochran, J., & Branch, K. (2005). Social learning theory and partner violence: A research note. *Deviant Behavior, 26, 379-395.*

Simons, R., Lin, K., & Gordon, L. (1998). Socialization in the family of origin and male dating violence: A prospective study. *Journal of Marriage and the Family, 60,* 467-478.

Simons, R., Wu, C., Rand, D., & Lorenz, F. (1994). Two routes to delinquency: Differences between early and late starters in the impact of parenting and deviant peers. *Criminology, 32,* 247-275.

Skinner, W., & Fream, A., (1997). A social learning theory analysis of computer crime among college students. *Journal of Research in Crime and Delinquency, 34,* 495-518.

Stets, J., & Pirog-Good, M. (1987). Violence in dating relationships. *Social Psychology Quarterly, 50(3),* 237-246.

Straus, M. (1979). Measuring intrafamily conflict and violence: The conflict tactic (CT) scales. *Journal of Marriage and the Family*, 41(1), 75-88.

Straus, M. (2004). Prevalence of violence against dating partners by male and female university students worldwide. *Violence Against Women, 10(7),* 790-811.

Straus, M. (2007). Conflict tactics scales*. Encyclopedia of domestic violence*, New York: Routledge.

Straus, M., & Douglas, E. (2004). A short form of the revised conflict tactics scale, and typologies for severity and mutuality. *Violence and Victims, 19(5),* 507-521.

Straus, M., & Gelles, R. (1988). Violence in American families: How much is there and why does it occur? In E. Nunnally, C. Chilman, & F. Cox (Eds.), *Troubled youths.* Newbury Park, CA: Sage Publishing.

Straus, M. A., Gelles, R. J., & Steinmetz, S. K. (1980). *Behind closed doors: Violence in the American family*. Garden City, NY: Anchor Press/Doubleday.

Straus, M., Hamby, S., Boney-McCoy, S., & Sugarman, D. (1996). The revised conflict tactics scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues*, 17, 283-316.

Straus, M., Hamby, S., Boney-McCoy, S., & Warren, W. (2003). The Conflict Tactics Scales handbook. *Revised Conflict Tactics Scale (CTS2); CTS: Parent-child version (CTSPC).* Los Angeles, CA: Western Psychological Services.

Straus, M. A., & Kantor, G. K. (1994). Corporal punishment of adolescents by parents: A risk factor in the epidemiology of depression, suicide, alcohol abuse, child abuse, and wife beating. *Adolescence, 29*, 543–561.

Straus, M., & Ramirez, I., (2004). Criminal history and assaults of dating partners: The role of type of prior crime, age of onset, and gender. *Violence & Victims, 19*, 413-434.

Straus, M., & Savage, S. (2005). Neglectful behavior by parents in the life history of university students in 17 countries and its relation to violence against dating partners. *Child Maltreatment,* 10(2), 124-135.

Sugarman, D., & Hotaling, G. (1989). Dating violence: Prevalence, context, and risk markers. In M. Pirog-Good & J. Stets (Eds.), *Violence in dating relationships.* New York: Praeger Publishers.

Sutherland, E. (1939). *Principles of criminology* (3rd ed.). Philadelphia: Lippincott.

Sutherland, E. (1973). Susceptibility and differential association. In K. Schuessler (Ed.), *Edwin H. Sutherland on analyzing crime* (pp. 42-43). Chicago: University of Chicago Press.

Tjaden, P., & Thoennes, N. (2000). *Stalking in America: Findings from the national violence against women survey* (NCJ 169592). Washington, DC: Department of Justice, National Institute of Justice.

Tremblay, R. (2003). Why socialization fails: The case of chronic physical aggression. In B. Lahey, T. Moffitt, & A. Caspi (Eds.), *Causes of conduct disorder and juvenile delinquency* (p. 182-224). New York: Guilford Publishing.

Ulbrich, P, & Huber, J. (1981) Observing parental violence: Distribution and effects. *Journal of Marriage and the Family, 43*, 623-631.

Ullman, S., Karabatsos, G., & Koss, M. (1999), Alcohol and sexual assault in a national s ample of college women. *Journal of Interpersonal Violence, 14(6),* 603-625.

White, J., & Kowalski, R. (1998). Male violence toward women: An integrative perspective. In R. Green & E. Donnerstein *(Eds.), Human aggression: Theories, research, and implications for social policy*. New York: Academic Press.

Widom, C.(1989). Child abuse, neglect, and violent criminal behavior. *Criminology, 27,* 251-271.

Yuan, N., Koss, M., Polacca, M., Goldman, D. (2006). Risk factors for physical assault and rape among six native American tribes. *Journal of Interpersonal Violence, 21(12),* 1566-1590.

APPENDIX A

Informed Consent

Dear Student,

My name is Keith Bell and I am a doctoral candidate at Indiana University of Pennsylvania (IUP). I am currently collecting data to complete my dissertation on the topic of intimate partner abuse on campus. You are invited to participate in this research study because you are a student enrolled at Indiana University of Pennsylvania (IUP). The information I wish to obtain pertains to your use of force physically, such as hitting, punching, slapping, and use of psychological methods, such as name calling and verbal insults, against a spouse or partner. I also would like to obtain information from you pertaining to physical and psychological abuse you may have sustained at the hands of a spouse or partner.

The survey should take approximately 20 to 30 minutes of your time, and participation is completely **voluntary**. You are free to decide not to participate in this study. There is no penalty for choosing not to complete the survey. If you are 17 years or younger do not complete this survey. Although your information is important to the research, participating without parental permission is not allowed for those individuals age 17 and younger. Some of the survey items may pertain to you recalling emotional events in your life and may be sensitive in nature. Because of this, if at any time during the completion of the survey you feel you must refrain from the completing the survey, simply sit quietly and hand the survey in with the remainder of the class at the completion of the allotted time. If any items are deemed non-applicable, or you wish to refrain from answering a survey item, simply leave the item blank and move on to the next item. Because the survey might cause you to recall painful experiences, the contact information for the IUP Center for Counseling and Psychological Services is provided at the end of this message. Please keep this informed consent form with the accompanying information in case you feel the need to contact the researcher, criminology department, or the Center for Counseling and Psychological Services.

There will be no identifying information recorded when you complete the survey. Please refrain from putting your name or any identifying information, such as Icard numbers, on the survey. All data will be collected to comply with research standards providing for the anonymity of the research participants. The data will be collected for the purpose of identifying patterns of abuse among college-aged students, and all findings will be available to participants after data analysis is complete if they wish. You may reach me at 304-696-3082 or by email at Jlzk@iup.edu, or Bell30@Marshall.edu

Project Director:
Keith. J Bell
Doctoral Candidate
of Criminology
University of Pennsylvania
G-1 McElhaney Hall
Indiana, PA 15705
(724)- 357-1220
Bell30@marshall.edu

Dissertation Chairperson:
Dr. Rosemary Gido
Indiana University of Pennsylvania Department
Center for Research in
Criminology: Editor, The Prison
Journal
413 Sutton Hall
(724)-357-1910
Rgido@iup.edu

Local/Campus facilities for domestic violence and psychological counseling

IUP Center for Counseling and
Psychological Services
Room 307, Pratt Hall
201 Pratt Drive
Indiana, PA 15705
(724) 357-2621

Alice Paul House- Indiana
P.O Box 417
Indiana, PA 15705
724-349-4444
www.yourinter.net/aph

Haven Project @ IUP
Domestic/ Sexual Assault & Stalking
Counseling & Awareness
(724) 357-4799

Indiana County

Victim /Witness Services
1-724-465-3835

Pennsylvania Domestic Violence Advocates and Support Staff (Statewide)

Pennsylvania Coalition Against Domestic Violence
125 N. Enola Drive
Enola, PA 17025
Phone: 1-800-692-7445

Victims Services
1-800-692-7292

National Domestic Hotline

Violence Hotline
1-800-799-SAFE (7233)

Thank you,

Keith J. Bell

APPENDIX B

LETTER OF INTRODUCTION

Dear Professor _____,

My name is Keith Bell and I am a doctoral student in the Criminology Department at Indiana University of Pennsylvania. I am writing in response to our conversation on _____ . I also wanted to take the time to thank you for volunteering your classroom time in assisting me in the collection of my data. Our classroom date is scheduled for (time, date, location). I will be traveling to Indiana, Pennsylvania so if your schedule should change I can be contacted at the telephone number on our scheduled meeting day or email address indicated below prior to our scheduled meeting day.

As we discussed, the focus of my study is to determine if intimate partner violence is a problem with college-aged participants and also to determine if their violence recorded is learned. My primary rationale for the collection of this data is due to the limited amount of research about domestic and intimate partner violence with college-aged individuals To collect this information, I will need roughly 20-25 minutes of your classroom time to read over the importance of the study, the informed consent report, and to allow the students time to complete the survey.

The Institutional Review Board for the Protection of Human Subjects at IUP has approved the study. The anonymity and confidentially of the participants are a must. Contact information for the researcher, the researcher's dissertation chair, and campus, local, state, and national domestic violence hotlines and personnel are listed on the informed consent form. No identifying marks or methods of data collection will be used to record individual student answers. There is no need to know how individual students answered each question. More importantly, the total acts of violence recorded, and the methods in which these students "learned" violence are of importance. Therefore, no follow up questionnaires will need to be administered and raw data will only be available to the researcher and his committee. Further, absolutely no names, student ID numbers, or specific classrooms will be mentioned in the reporting of the data.

I have listed the contact information for my dissertation chair, and for myself should you have any additional questions. Again, any assistance you can provide will be greatly appreciated.

Sincerely,

Project Director:
Keith. J Bell
Doctoral Candidate
Department of Criminology
University of Pennsylvania
G-1 McElhaney Hall
Indiana, PA 15705
(724)- 357-1220
Bell30@marshall.edu

Dissertation Chairperson:
Dr. Rosemary Gido
Indiana University of Pennsylvania
Center for Research in
Criminology: Editor, The Prison
Journal
413 Sutton Hall
(724)-357-1910
Rgido@iup.edu

APPENDIX C

SURVEY INSTRUMENT

For purposes of reading the proposed study and survey instrument the survey items pertaining to each independent and dependent variable have been color coded. These will not appear color coded on the survey administered to the research population.

Differential Association- Green
Differential Reinforcement- Red
Definitions- Blue
Imitation- Orange
Control- Dark Purple
Conflict Tactics Scale (DV)- Light Purple

We would like to begin by asking you a few questions about yourself and your status at IUP. Please fill in the blanks of circle the number next to the best response.

3 Age at last birthday:_____

2.) Sex: **1** Male **2** Female

3 As of last semester, how many college credit hours have you completed (write total hours on the line provided. If this is your first semester of classes, write "0" in the space provided)?

_____

4.) Race: **1** African American **2** Caucasian **3** Latino **4** American Indian
5 Asian American **6** Other (specify):_____

3 What is your major at this university?_____

6.) What is your current living? I live with:
1 one or both parents **2** spouse/mate **3** spouse/mate & children **4** children only
5 friends(s) or roommate(s) **6** other relatives **7** I live alone
8 other (specify):_____

7.) Do you live: **1** on campus **2** off campus

8.) Are you a member of a: **1** fraternity **2** sorority **3** neither (if neither, move to question #10)

3 If you answered "fraternity" or "sorority" to the above question, is this an honors fraternity or sorority?
1) Yes **2) No**

10) Are you a member of a university sanctioned athletic team? 1) Yes 2) No
If Yes, on average, how many hours a week does your team practice? _____

3 Given your current life situation, how much education do you expect to get eventually?
1 some college **2** Bachelors Degree **3** some graduate college **4** Masters Degree
5 Law Degree **6** Ph.D./doctorate **7** M.D. degree **8** Other (specify)_____

12.) What is you current religious affiliation?
0 No religion **1** Roman Catholic **2** Baptist
3 Methodist **4** Jewish **5)** Episcopalian 6) Other_____

13.) How much money do you expect to be making 5 years after you complete schooling?
1 $0-$19,999 **2** $20,000-$39,999 **3** $40,000-$59,999 **4** $60,000-$79,999
5 $80,000-$99,999 **6** $100,000-$199,999 **7** $200,000-$299,999
8 $300,000 or more

14.) What is your current employment status?
0 Not Working **1** Working part time (less that 35 hours per week) **2** Full-Time

15.) What is your primary source(s) of income?
1 Myself only **2** Parent(s) only **3** Spouse/mate only **4** Myself and parent(s)
5 Myself and spouse/mate **6** Other (specify):_____

16.) Refer to the person(s) circled in Question #15 above. Adding all incomes together, which of the following best describes the total annual income of your primary source(s) of income?
1 less than $5,000 **2** $5,000-$9,999 **3** $10,000-$19,999 **4** $20,000-$29,999
5 $30,000-$39,999 **6** $40,000-$49,999 **7** $50,000-74,999
8 $75,000-$99,999 **9** $100,000 or more

We would now like some information about you.

Circle the appropriate number to indicate the extent to which you agree or disagree with each of the following statements:

1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree

17.) I lose my temper pretty easily: 1 2 3 4

18). Laws against the use of physical violence, even in intimate relationships, should be obeyed: 1 2 3 4

19.) When I have a serious disagreement with someone it's hard for me to talk calmly without getting upset: 1 2 3 4

20.) It is against the law for a man to use violence against a woman, even if they are in an intimate relationship: 1 2 3 4

21.) Yelling and swearing is justified in some situations in dating relationships: 1 2 3 4

22.) We all have a moral duty to abide by the law: 1 2 3 4

23.) It is against the law for a woman to use violence against a man, even if they are in a intimate relationship: 1 2 3 4

24.) Physical violence is part of a normal dating relationship: 1 2 3 4

25.) I believe victims provoke physical violence 1 2 3 4

26.) It's OK to break the law if we do not agree with it: 1 2 3 4

27.) In dating relationships, physical abuse is never justified: 1 2 3 4

28.) When I'm really angry, other people better stay away from me: 1 2 3 4

29) What are the major events in your life that, for better or worse, interrupted or changed your usual activities during the past two years?

CHECK ALL THAT APPLY

__Moved to a new home	__Studied abroad	__Began new job
__Fired from job	__Major financial setback	__Changed schools
__ Military deployment	__Arrested	__Involved in lawsuit
__On academic probation	__roommate problems	__Problems with course work
__Excessive partying	__Alcohol/drug problems	__Major illness
__Psychological problems	__Illness/injury in family	__Divorced
__New love relationship	__Lost virginity	__Breakup w/ boy/girlfriend
__Sexual problems	__Unwanted pregnancy	__Death of loved one/friend

For each of the substances below, please indicate how often you have used it in the past 12 months. Do not count it if you have used a substance that was prescribed by a doctor.

0 Never Used **1** Once or Twice **2** Less than once a month **3** Once or twice a month
4 Once or twice a week **5** 3-4 times a week **6** Daily or nearly every day

30.) Alcohol	**0**	**1**	**2**	**3**	**4**	**5**	**6**
31.) Marijuana	**0**	**1**	**2**	**3**	**4**	**5**	**6**
32.) Cocaine	**0**	**1**	**2**	**3**	**4**	**5**	**6**
33.) Stimulants (speed)	**0**	**1**	**2**	**3**	**4**	**5**	**6**
34.) Depressants (downers)	**0**	**1**	**2**	**3**	**4**	**5**	**6**
35.)Narcotics (Heroin, Opiates, Morphine, etc.)	**0**	**1**	**2**	**3**	**4**	**5**	**6**
36.) Other	**0**	**1**	**2**	**3**	**4**	**5**	**6**

37.) If someone like you were to use physical actions (such as hitting, slapping, kicking, punching, etc.) against a spouse or partner in a disagreement, how likely is it that you would be reported to the police?

4 very likely **3** somewhat likely **2** somewhat unlikely **1** very unlikely

38.) If someone like you were reported to the police for using physical actions (such as hitting, slapping, kicking, punching, etc.) against a spouse or partner in a disagreement, what do you think is the **worst thing** that would happen to you?

0 Nothing **1** Warned and released **2** Arrested **3** Taken to court
4 Have a restraining order against them **5** Probation or a rehab program
6 Serve jail time

We would now like some information about your friends and family

About how many of your closest friends have ever had the following things happen in a disagreement with a spouse of partner?

0 None of almost none **1** less than half **2** More than half **3** All or almost all

39.) They used verbal tactics (swearing, yelling, etc.)	**0**	**1**	**2**	**3**
40.) They used physical actions (hitting, slapping, etc.)	**0**	**1**	**2**	**3**
41.) They were subjected to verbal tactics (swearing, yelling, etc.)	**0**	**1**	**2**	**3**
42.) They were subjected to physical actions (hitting, slapping, etc.)	**0**	**1**	**2**	**3**

Please indicate the extent to which you believe <u>your mother or stepmother</u> would approve or disapprove of the following things one partner might do to the other in a disagreement:

1 Strongly Approve **2** Approve **3** Disapprove **4** Strongly Disapprove
5 No Mother/Stepmother

43.) Discuss issue calmly	**1**	**2**	**3**	**4**	**5**
44.) Use verbal tactics (swearing, yelling, etc.)	**1**	**2**	**3**	**4**	**5**
45.) Use physical actions (hitting, slapping, etc.)	**1**	**2**	**3**	**4**	**5**

Please indicate the extent to which you believe <u>your father or stepfather</u> would approve or disapprove of the following things one partner might do to the other in a disagreement:

1 Strongly Approve **2** Approve **3** Disapprove **4** Strongly Disapprove
5 No Father/Stepfather

46.) Discuss issue calmly	**1**	**2**	**3**	**4**	**5**
47.) Use verbal tactics (swearing, yelling, etc.)	**1**	**2**	**3**	**4**	**5**
48.) Use physical actions (hitting, slapping, etc.)	**1**	**2**	**3**	**4**	**5**

Please indicate the extent to which you believe <u>your best friend</u> would approve or disapprove of the following things one partner might do to the other in a disagreement:

1 Strongly Approve **2** Approve **3** Disapprove **4** Strongly Disapprove
5 No Best Friend

49.) Discuss issue calmly	**1**	**2**	**3**	**4**	**5**
50.) Use verbal tactics (swearing, yelling, etc.)	**1**	**2**	**3**	**4**	**5**
51.) Use physical actions (hitting, slapping, etc.)	**1**	**2**	**3**	**4**	**5**

Have you ever <u>actually seen</u> any of the following things happen with anyone whom you admire during a disagreement with their spouse or partner?

<u>CHECK ALL THAT APPLY:</u>

	Not Seen	Actors TV/movies	Father or stepfather	Mother or stepmother	Siblings	Other relatives	Friends	Other
52.) They used verbal tactics (swearing, yelling, etc.)								
53.) They use physical actions (hitting, slapping, etc.)								
54.) They were subjected to verbal tactics.								
55.) They were subjected to physical actions								

How often has each of the following individuals used verbal tactics (such as swearing, yelling, insulting, etc.) against a spouse of partner in a disagreement? How often has each of the following individuals used physical actions (such as hitting, slapping, kicking, punching, etc.) against a spouse of partner in a disagreement?

	Used Verbal Tactics				Used Physical Actions			
	Never	Seldom	Usually	Always	Never	Seldom	Usually	Always
56.) Father, Stepfather, or Male Guardian	0	1	2	3	0	1	2	3
57.) Mother, Stepmother, or Female Guardian	0	1	2	3	0	1	2	3
58.) Siblings	0	1	2	3	0	1	2	3
59.) Other family members	0	1	2	3	0	1	2	3
60.) Best friends	0	1	2	3	0	1	2	3

How often have each of the following individuals been subjected to verbal tactics (such as swearing, yelling, insulting, etc.) used by a spouse or partner in a disagreement? How often have each of the following individuals been subjected to physical actions (such as hitting, slapping, kicking, punching, etc.) used by a spouse or partner in a disagreement?

	Subjected to Verbal Tactics				Subjected to Physical Actions			
	Never	Seldom	Usually	Always	Never	Seldom	Usually	Always
61.) Father, Stepfather or Male Guardian	0	1	2	3	0	1	2	3
62.) Mother, Stepmother or Female Guardian	0	1	2	3	0	1	2	3
63.) Siblings	0	1	2	3	0	1	2	3
64.) Other family members	0	1	2	3	0	1	2	3
65.) Best friends	0	1	2	3	0	1	2	3

We would now like some information about your own relationships with significant others.

66.) How many serious relationships (dating, going steady, cohabitation, engaged, or married), have you ever had?_____

67.) What is you **current** marital status?

1 Married ---------- **If married PLEASE GO TO QUESTION # 73**

2 Separated **3** Divorced **4** Widowed **5** Single (never married)

If you are currently unmarried:

68.) What is your current dating situation?

0 Not dating any one person----------→ **PLEASE GO TO QUESTION #83**

1 Dating someone but not going steady (open relationship) **2** Going steady

3 Cohabitating but not engaged **4** Engaged but not cohabitating **5** Cohabitating and engaged

If you are currently dating, going steady, or engaged to one person:

69.) How long have you been in the relationship? Years____Months____Days____

70.) Are you sexually active with that person? **1** Yes **0** No

If you are currently dating, going steady, or engaged to one person:

71.) How often do you see that person?
1 Once or twice a month
2 Once or twice a week
3 Three to six times a week
4 Every day

72.) Is the relationship:
1 With someone of the opposite sex
2 With someone of the same sex

Please indicate the extent to which you believe your current spouse or partner would approve or disapprove of the following things one partner might do to the other in a disagreement:

1 Strongly approve **2** Approve **3** Disapprove **4** Strongly Disapprove

73.) Discuss issue calmly.	**1**	**2**	**3**	**4**
74) Use verbal tactics (swearing, yelling, etc.)	**1**	**2**	**3**	**4**
75.) Use physical actions (hitting, slapping, etc.)	**1**	**2**	**3**	**4**

For each of the substances used below, please indicate how often your current spouse or partner has used it in the past 12 months. Do not count it if the substance was prescribed by a doctor.

0 Never Used **1** Once or Twice **2** Less than once a month **3** Once or twice a month
4 Once or twice a week **5** 3-4 times a week **6** Daily or nearly every day

76.) Alcohol	**0**	**1**	**2**	**3**	**4**	**5**	**6**
77.) Marijuana	**0**	**1**	**2**	**3**	**4**	**5**	**6**
78.) Cocaine	**0**	**1**	**2**	**3**	**4**	**5**	**6**
79.) Stimulants (speed)	**0**	**1**	**2**	**3**	**4**	**5**	**6**
80.) Depressants (downers)	**0**	**1**	**2**	**3**	**4**	**5**	**6**
81.) Narcotics (Heroin, Opiates, Morphine, etc.)	**0**	**1**	**2**	**3**	**4**	**5**	**6**
82.) Other	**0**	**1**	**2**	**3**	**4**	**5**	**6**

Couples have different ways of trying to settle their differences. This is a list of things that may happen when you have differences in a relationship. Please answer to the best of your knowledge by circling the number corresponding with "number of times" you did each of these things to your partner, and how many times your partner did these things to you in "the last year."

How often did this happen?

0= This has never happened
1= Once in the past year
2= Twice in the past year
3= 3-5 times in the past year
4= 6-10 times in the past year
5= 11-20 times in the past year
6= More than 20 times in the past year
7= Not in the past year but it has happened before

83.) I showed my partner I cared even though we disagreed.	**0 1 2 3 4 5 6 7**
84.) My partner showed care for me even though we disagreed.	**0 1 2 3 4 5 6 7**
85.) I explained my side of a disagreement to my partner.	**0 1 2 3 4 5 6 7**
86.) My partner explained his or her side of the disagreement to me.	**0 1 2 3 4 5 6 7**
87.) I insulted or swore at my partner.	**0 1 2 3 4 5 6 7**
88.) My partner did this to me.	**0 1 2 3 4 5 6 7**
89.) I threw something at my partner that could hurt.	**0 1 2 3 4 5 6 7**
90.) My partner did this to me.	**0 1 2 3 4 5 6 7**
91.) I twisted my partner's arm or hair.	**0 1 2 3 4 5 6 7**
92.) My partner did this to me.	**0 1 2 3 4 5 6 7**
93.) I had a sprain, bruise, or small cut from a fight with my partner.	**0 1 2 3 4 5 6 7**
94.) My partner had a sprain, bruise, or small cut from a fight with me.	**0 1 2 3 4 5 6 7**
95.) I showed respect for my partner's feelings about an issue.	**0 1 2 3 4 5 6 7**
96.) My partner showed respect for my feelings about an issue.	**0 1 2 3 4 5 6 7**
97.) I made my partner have sex without a condom.	**0 1 2 3 4 5 6 7**
98.) My partner did this to me.	**0 1 2 3 4 5 6 7**
99.) I pushed or shoved my partner.	**0 1 2 3 4 5 6 7**
100.) My partner did this to me.	**0 1 2 3 4 5 6 7**
101.) I used force (hitting, holding down) to make my partner have oral or anal sex with me.	**0 1 2 3 4 5 6 7**
102.) My partner did this to me.	**0 1 2 3 4 5 6 7**
103.) I used a knife or gun on my partner.	**0 1 2 3 4 5 6 7**
104.) My partner did this to me.	**0 1 2 3 4 5 6 7**
105.) I passed out from being hit on the head by my partner in a fight.	**0 1 2 3 4 5 6 7**
106.) My partner passed out from being hit on the head in a fight with me	**0 1 2 3 4 5 6 7**
107.) I called my partner fat or ugly.	**0 1 2 3 4 5 6 7**
108.) My partner did this to me.	**0 1 2 3 4 5 6 7**
109.) I punched or hit my partner with something that could hurt.	**0 1 2 3 4 5 6 7**
110.) My partner did this to me.	**0 1 2 3 4 5 6 7**
111.) I destroyed something belonging to my partner.	**0 1 2 3 4 5 6 7**
112.) My partner did this for me.	**0 1 2 3 4 5 6 7**
113.) I went to a doctor because of a fight with my partner.	**0 1 2 3 4 5 6 7**
114.) My partner went to a doctor because of a fight with me.	**0 1 2 3 4 5 6 7**

115.) I choked my partner. 0 1 2 3 4 5 6 7
116.) My partner did this to me. 0 1 2 3 4 5 6 7

117.) I shouted or yelled at my partner. 0 1 2 3 4 5 6 7
118.) My partner did this to me. 0 1 2 3 4 5 6 7

119.) I slammed my partner against a wall. 0 1 2 3 4 5 6 7
120.) My partner did this to me. 0 1 2 3 4 5 6 7

121.) I said I was sure we could work out a problem. 0 1 2 3 4 5 6 7
122.) My partner was sure we could work out a problem. 0 1 2 3 4 5 6 7

123.) I needed to see a doctor because of a fight with my partner, but I did not. 0 1 2 3 4 5 6 7
124.) My partner needed to see a doctor because of a fight with me, but did not. 0 1 2 3 4 5 6 7

125.) I beat up my partner. 0 1 2 3 4 5 6 7
126.) My partner did this to me. 0 1 2 3 4 5 6 7

127.) I grabbed my partner. 0 1 2 3 4 5 6 7
128.) My partner did this to me. 0 1 2 3 4 5 6 7

129.) I used force (like hitting, holding down) to make my partner have sex. 0 1 2 3 4 5 6 7
130.) My partner did this to me. 0 1 2 3 4 5 6 7

131.) I stomped out of the room, house, or yard during a disagreement. 0 1 2 3 4 5 6 7
132.) My partner did this to me. 0 1 2 3 4 5 6 7

133.) I insisted on sex when partner did not want (but did not use physical force). 0 1 2 3 4 5 6 7
134.) My partner did this to me. 0 1 2 3 4 5 6 7

135.) I slapped my partner. 0 1 2 3 4 5 6 7
136.) My partner did this to me. 0 1 2 3 4 5 6 7

137. I had a broken bone from a fight with my partner. 0 1 2 3 4 5 6 7
138.) My partner had a broken bone from a fight with me. 0 1 2 3 4 5 6 7

139.) I used threats to make my partner have oral or anal sex with me. 0 1 2 3 4 5 6 7
140.) My partner did this to me. 0 1 2 3 4 5 6 7

141.) I suggested a compromise to a disagreement. 0 1 2 3 4 5 6 7
142.) My partner did this to me. 0 1 2 3 4 5 6 7

143.) I burned or scalded my partner on purpose. 0 1 2 3 4 5 6 7
144.) My partner did this to me. 0 1 2 3 4 5 6 7

145.) I insisted my partner have oral or anal sex (but did not use force) 0 1 2 3 4 5 6 7
146.) My partner did this to me. 0 1 2 3 4 5 6 7

147.) I accused my partner of being a lousy lover. 0 1 2 3 4 5 6 7
148.) My partner did this to me. 0 1 2 3 4 5 6 7

149.) I did something to spite my partner. 0 1 2 3 4 5 6 7
150.) My partner did this to me. 0 1 2 3 4 5 6 7

151.) I threatened to hit or throw something at my partner. 0 1 2 3 4 5 6 7
152.) My partner did this to me. 0 1 2 3 4 5 6 7

153.) I felt physical pain that still hurt the next day because of a fight with my partner. 0 1 2 3 4 5 6 7
154.) My partner still felt physical pain the next day after a fight with me. 0 1 2 3 4 5 6 7

155.) I kicked my partner. 0 1 2 3 4 5 6 7
156.) My partner did this to me. 0 1 2 3 4 5 6 7

157.) I used threats to make my partner have sex. **0 1 2 3 4 5 6 7**
158.) My partner did this to me. **0 1 2 3 4 5 6 7**

159.) I agreed to try a solution to a disagreement my partner suggested. **0 1 2 3 4 5 6 7**
160.) My partner agreed to try a solution I suggested. **0 1 2 3 4 5 6 7**

161.) If you have ever used physical actions against your partner, did your partner use such physical actions against you first?

1) yes 0) no

(GO TO QUESTION #162 BELOW)

9) never used physical actions against a partner.

(GO TO QUESTION #163 BELOW)

162.) If you have ever used physical actions (such as hitting, kicking, slapping, punching, etc.) against a spouse or partner in a disagreement, which of the following things have happened as a result of such action? **CHECK ALL THAT APPLY:**

____It gave me a satisfying or rewarding feeling.
____It made my relationship even more stressful.
____My friends criticized me.
____It made me feel more masculine or tough.
____It ended the argument.
____I got arrested.
____It got my partner off my back.
____It made me feel out of control.
____I felt ashamed.
____I felt powerful.
____My friends respected me more.
____It made the argument worse.
____I felt more in control.
____My family criticized me.
____I felt guilty.
____My partner respected me more.

(GO TO QUESTION #164A)

163.) If you have never used physical actions (such as hitting, kicking, slapping, punching etc.) against a spouse or partner in a disagreement, which of the following things do you think would happen as a result of such action? **CHECK ALL THAT APPLY**

____It would give me a satisfying or rewarding feeling.
____It would make my relationship even more stressful.
____My friends would criticize me.
____It would make me feel more masculine or tough.
____It would end the argument.
____I would get arrested.
____It would get my partner off my back.
____It would make me feel out of control.
____I would feel ashamed.
____I would feel powerful.
____My friends would respect me more.
____It would make the argument worse.
____I would feel more in control.
____My family would criticize me.
____I would feel guilty.
____My partner would respect me more.

(GO TO QUESTION #164B)

164A.) If you have ever used physical actions against a spouse or partner in a disagreement: What has been the reaction to each of the following after you have used physical actions against a partner?

5 Approve and encourage it **4** Neither approve nor disapprove **3** Disapprove but do nothing
2 Disapprove and try to stop it **1** Disapprove and report to authorities

165.) Spouse/partner	**5**	**4**	**3**	**2**	**1**
166.) Friends	**5**	**4**	**3**	**2**	**1**
167.) Parents	**5**	**4**	**3**	**2**	**1**
168.) Other relatives	**5**	**4**	**3**	**2**	**1**

OR:

164B.) If you have never used physical actions against a spouse or partner in a disagreement: What do you think would be the reaction of each to the following if you were to use such physical actions against a partner?

5 Approve and encourage it **4** Neither approve nor disapprove **3** Disapprove but do nothing
2 Disapprove and try to stop it **1** Disapprove and report to authorities

165.) Spouse/partner	**5**	**4**	**3**	**2**	**1**
166.) Friends	**5**	**4**	**3**	**2**	**1**
167.) Parents	**5**	**4**	**3**	**2**	**1**
168.) Other relatives	**5**	**4**	**3**	**2**	**1**

169A.) What has been the usual result after you have used physical actions against a partner?

OR:

169B.) What do you think would be the usual result if you were to use Such physical actions against a partner.

1 mainly good outcomes **2** about as much good as bad **3** mainly bad outcomes

We would now like some information about your current relationship.

170.) If you have ever been the victim of physical actions by a spouse or partner, did they occur as a:

1 IUP student **2** student elsewhere **3** non-student **(GO TO #171A)**

9 I was never a victim **(GO TO #171B)**

171A.) If you have ever been the victim of physical actions by a spouse or partner in a disagreement, what has been the usual result? **(GO TO #172A)**

OR

171B.) If you have never been the victim of physical actions by a spouse or partner in a disagreement, what do you think Would be the usual result if you were? **(GO TO #172B)**

1 mainly good outcomes **2** about as much good as bad **3** mainly bad outcomes

172A.) If you have ever been the victim of physical actions by a spouse or partner in a disagreement, what has been the reaction to each of the following?

5 Approve and encourage it **4** Neither approve nor disapprove **3** Disapprove but do nothing
2 Disapprove and try to stop it **1** Disapprove and report to authorities

173.) Friends	**5**	**4**	**3**	**2**	**1**
174.) Parents	**5**	**4**	**3**	**2**	**1**
175.) Other relatives	**5**	**4**	**3**	**2**	**1**

172B.) If you have never been the victim of physical actions by a spouse or partner in a disagreement, what do you think would be the reaction to each of the following if you were?

5 Approve and encourage it **4** Neither approve nor disapprove **3** Disapprove but do nothing
2 Disapprove and try to stop it **1** Disapprove and report to authorities

173.) Friends	**5**	**4**	**3**	**2**	**1**
174.) Parents	**5**	**4**	**3**	**2**	**1**
175.) Other relatives	**5**	**4**	**3**	**2**	**1**

176) In your current relationship a neutral 3rd party would rate
1) my partner better looking than me 2) Me better looking than my partner
3) equal in attractiveness 4) I am currently not dating **= If no partner please skip to question 186**

177.) For the following questions, we would like to find out about the decision making in your current relationship. Please check only one box that indicates the primary method of decision making in your relationship for each column.

	178.) Where we vacation	179.)Where we eat	180.) What we do for entertainment (movies, etc)	181.) How I spend my free time	182.) Where I work	183.)Choice of friends	184.) What I wear	185.) How often we have sex
My partner always								
My partner more than me								
My partner and I equally decide								
Myself more than my partner								
Myself always								

186.) If you were a victim of any physical action (such as hitting, kicking, slapping, punching, etc.) in a current or past relationship, where did the physical action(s) usually occur?

1 on campus	**4** at a party	**7** other (specify):_____
2 off campus residence	**5** in a car	
3 elsewhere on campus	**6** at or near a bar	**8 NOT A VICTIM**

THANK YOU FOR YOUR COOPERATION IN ANSWERING THIS SURVEY. YOUR RESPONSES WILL MAKE A VALUABLE CONTRIBUTION TO THIS RESEARCH.

CTS2 copyright © 2003 by Western Psychological Services. Reprinted for use in specific scholarly application by K. Bell, IUP, under limited-use license from the publisher, Western Psychological Services, 12031 Wilshire Boulevard, Los Angeles, California 90025-1251, U.S.A. All rights reserved. No additional reproduction may be made, whether in whole or in part, without the prior, written authorization of Western Psychological Services.

APPENDIX D

DESCRIPTIVE STATISTICS AND FREQUENCIES

Table D1

Descriptive Statistics: Demographic & Other Variables

Variable	N	Mean	Std. Error of Mean	Range	Mode
Age	361	19.9	.084	7	19
Current Living Situation	361	4.05	.104	7	5
Greek Membership	361	2.74	.034	2	3
College Credits	361	39.4	1.793	134	30
Hours Practiced	361	13.0	1.094	28	16

Table D2

Frequency Table

Variable	Frequency	Percent	Cumulative Percent
Gender			
Male	169	46.8	46.8
Female	192	53.2	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Race			
African American	44	12.2	12.2
Caucasian	293	81.2	93.6
Latino	8	2.2	95.8
American Indian	2	0.6	96.4
Asian American	4	1.1	97.5
Other	10	2.7	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Major			
Nursing/Pre-Med	16	4.4	4.4
Psychology	10	2.8	7.2
English/journalism	11	3.0	10.3
Business/ finance/ Marketing/account.	58	16.1	26.5
Criminology	78	21.6	48.2

Variable	Frequency	Percent	Cumulative Percent
Undeclared	20	5.5	53.8
Political Science	9	2.5	56.3
Physical education	16	4.4	60.7
Education	43	11.9	72.7
Math	8	2.2	74.9
Sciences – Biology	17	4.7	79.7
History	5	1.4	81.1
Communications	16	4.4	85.5
Languages	4	1.1	86.6
Other	50	13.9	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Current Living Situation			
One or both parents	87	24.1	24.2
Spouse/mate	19	5.3	29.4
Spouse/mate & Children	3	0.8	30.3
Friends or roommates	217	60.1	90.6
Other Relatives	3	0.8	91.4
I live alone	27	7.5	98.9
Other	5	1.4	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Where do you live?			
On campus	187	51.8	51.8
Off campus	174	48.2	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Greek Member			
Fraternity	40	11.1	11.2
Sorority	13	3.6	14.8
Neither	308	85.3	100.0
Total	361	100.0	

Variable	Frequency	Percent	Cumulative Percent
Athletics			
Yes	35	9.7	9.7
No	326	91.3	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Expected Education			
Some College	3	0.8	0.8
Bachelors Degree	171	47.4	48.2
Some Graduate Ed.	12	3.3	51.5
Masters Degree	127	35.2	86.7
Law Degree	12	3.3	90.0
Ph.D/doctorate	26	7.2	97.2
Other	2	2.8	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Religion			
No religion	77	21.3	21.3
Roman Catholic	135	37.4	59.4
Baptist	28	7.8	67.2
Methodist	47	13.0	80.4
Jewish	6	1.7	82.1
Episcopalian	6	1.7	83.8
Other	62	17.2	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Current Employment			
Not working	196	54.3	54.3
Working part-time	159	44.0	98.3
Full-time	6	1.7	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**

Variable	Frequency	Percent	Cumulative Percent
Primary Source of Income			
Myself only	63	17.5	17.5
Parent(s) only	62	17.2	34.7
Spouse/mate only	2	0.6	35.3
Myself and parent(s)	212	58.7	94.0
Myself and spouse/mate	16	4.4	98.4
Other	6	1.7	100.0
Total	361	100.0	

Frequency Table: Physical Perpetration of Violence 0= no act 1= any act

Variable	Frequency	Percent	Cumulative Percent
0	212	58.7	58.7
1	149	41.3	100.0
Total	361	100.0	

Frequency Table: Physical Victimization of Violence 0= no act 1= any act

Variable	Frequency	Percent	Cumulative Percent
0	200	55.4	55.4
1	161	44.6	100.0
Total	361	100.0	

Frequency Table: Psychological Perpetration of Violence 0= no act 1= any act

Variable	Frequency	Percent	Cumulative Percent
0	60	16.6	16.6
1	301	83.4	100.0
Total	361	100.0	

Frequency Table: Psychological Victimization of Violence 0= no act 1= any act

Variable	Frequency	Percent	Cumulative Percent
0	58	16.1	16.1
1	303	83.9	100.0
Total	361	100.0	

Table D3

Descriptive Statistics: Physical and Psychological Violence

Variable	N	Mean	Std. Error of Mean	Range	Mode
Physical Perpetrated Violence	361 *	3.79	.462	78	0
Physical Victimization	361 **	4.49	.567	84	0
Psychological Perpetrated Violence	361 ***	10.09	.531	63	0
Psychological Victimization	361* ***	9.06	.494	56	0

* 149 respondents answered perpetrating physical violence.

** 161 respondents answered being a victim of physical violence.

*** 301 respondents answered perpetrating psychological violence.

**** 303 respondents answered being a victim of psychological violence.

***** Although 41% of the survey population (lowest of the four totals) answered "yes" to violence, the mean average was in the lower quartile. This made it necessary to dichotomize the Dependent Variables from a 8 point Likert-scale (0-7) to 0= no acts of violence and 1= any act of violence (see measures of central tendency above for a better explanation).

Table D4

Cross-tabulations: Perpetrated Violence with Gender

Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence	114	31.6	98	27.1
Any Act of Violence	55	15.2	94	26.0

N= 361, Females 192, Males 169

Table D5

Cross-tabulations: Perpetrated Violence Severity with Gender

Variable	Minor		Severe	
	No	Yes	No	Yes
Male	127	42 (24.8%)	147	22 (13.0%)
Female	147	45 (23.4%)	153	40 (20.8%)

Table D6

Frequency Table: Severity of physical violence

Variable	Frequency	Minimum	Maximum	Mean
Severe	361	0	84	1.79
Minor	361	0	78	6.46

Table D7

Frequency Table: Self-Reported Use

Variable	Frequency	Percent	Cumulative Percent
Alcohol Usage Past 12 Months			
Never Used	32	8.9	8.9
Once or Twice	39	10.8	19.7
Less than once a Month	32	8.9	28.5
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Once or Twice a Month	72	19.9	48.5
Once or Twice a Week	121	33.5	82.0
Three- Four times a week	54	15.0	97.0
Daily or near daily	11	3.5	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Marijuana Usage Past 12 Months			
Never Used	200	55.4	55.4
Once or Twice	58	16.1	71.5
Less than once a Month	23	6.4	77.8
Once or Twice a Month	24	6.6	84.5
Once or Twice a Week	21	5.8	90.3
Three- Four times a week	15	4.2	94.5
Daily or near daily	20	5.5	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Cocaine Usage Past 12 Months			
Never Used	324	89.9	89.8
Once or Twice	18	5.0	94.7
Less than once a Month	7	1.9	96.7

Once or Twice a Month	8	2.2	98.9
Once or Twice a Week	2	0.6	99.4
Three- Four times a week	1	0.3	99.7
Daily or near daily	1	0.3	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Stimulant Usage Past 12 Months			
Never Used	333	92.2	92.2
Once or Twice	17	4.7	96.9
Less than once a Month	4	1.1	98.0
Once or Twice a Month	4	1.1	99.1
Once or Twice a Week	2	0.6	99.7
Three- Four times a week	0	0.0	99.7
Daily or near daily	1	0.3	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Depressant Usage Past 12 Months			
Never Used	329	91.1	91.1
Once or Twice	17	4.7	95.8
Less than once a Month	7	1.9	97.8
Once or Twice a Month	5	1.4	99.2
Once or Twice a Week	2	0.6	99.7
Three- Four times a week	0	0.0	99.7
Daily or near daily	1	0.3	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**

Narcotic Usage Past 12 Months			
Never Used	347	96.1	96.1
Once or Twice	8	2.2	98.3
Less than once a Month	4	1.1	99.4
Once or Twice a Month	2	0.6	100.0
Once or Twice a Week	0	0.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Three- Four times a week	0	0.0	
Daily or near daily	0	0.0	
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Other Drug Usage Past 12 Months			
Never Used	334	92.5	92.8
Once or Twice	12	3.3	96.1
Less than once a Month	6	1.7	97.8
Once or Twice a Month	4	1.1	98.9
Once or Twice a Week	2	0.6	99.4
Three- Four times a week	0	0.0	99.4
Daily or near daily	2	0.6	100.00
Missing Data	1	0.3	
Total	361	100.0	

Table D8

Frequency Table: Partner's Use

Variable	**Frequency**	**Percent**	**Cumulative Percent**
Alcohol Usage Past 12 Months			
Never Used	33	9.1	14.2
Once or Twice	28	7.8	26.2
Less than once a Month	25	6.9	36.9
Once or Twice a	56	15.5	60.9

Month			
Once or Twice a Week	60	16.6	86.7
Three- Four times a week	25	6.9	97.4
Daily or near daily	6	1.7	100.0
Missing Data (no answer)	128	35.5	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Marijuana Usage Past 12 Months			
Never Used	141	39.1	60.5
Once or Twice	37	10.2	76.4
Less than once a Month	14	39.9	82.4
Once or Twice a Month	12	3.3	87.6
Once or Twice a Week	12	3.3	92.7
Three- Four times a week	6	1.7	95.3
Daily or near daily	11	3.0	100.0
Missing Data (no answer)	128	35.5	
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Cocaine Usage Past 12 Months			
Never Used	219	60.7	94.0
Once or Twice	8	2.2	97.4
Less than once a Month	1	0.3	97.9
Once or Twice a Month	2	0.6	98.7
Once or Twice a Week	3	0.8	100.0
Three- Four times a week	0	0.0	

Daily or near daily	0	0.0	
Missing Data (no answer)	128	35.5	
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Stimulant Usage Past 12 Months			
Never Used	222	61.5	95.7
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Once or Twice	4	1.1	97.7
Less than once a Month	5	1.4	99.6
Once or Twice a Month	0	0.0	99.6
Once or Twice a Week	1	0.3	100.0
Three- Four times a week	0	0.0	
Daily or near daily	0	0.0	
Missing Data (no answer)	129	35.7	
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Depressant Usage Past 12 Months			
Never Used	222	64.5	95.3
Once or Twice	3	0.8	96.6
Less than once a Month	1	0.3	97.0
Once or Twice a Month	5	1.4	99.1
Once or Twice a Week	0	0.0	99.1
Three- Four times a week	1	0.3	99.6
Daily or near daily	1	0.3	100.0
Missing Data (no answer)	128	35.5	
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**

Narcotics Usage Past 12 Months			
Never Used	225	62.3	96.6
Once or Twice	7	1.9	99.6
Less than once a Month	0	0.0	99.6
Once or Twice a Month	0	0.0	99.6
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Once or Twice a Week	0	0.0	99.6
Three- Four times a week	1	0.3	100.0
Daily or near daily	0	0.0	
Missing Data (no answer)	128	35.5	
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Other Drugs Usage Past 12 Months			
Never Used	223	61.8	95.7
Once or Twice	4	1.1	97.4
Less than once a Month	3	0.8	98.7
Once or Twice a Month	0	0.0	98.7
Once or Twice a Week	0	0.0	98.7
Three- Four times a week	0	0.0	98.7
Daily or near daily	3	0.8	100.0
Missing Data (no answer)	128	35.5	
Total	361	100.0	

Table D9

Descriptive Statistics: Demographic & Other Variables

Variable	N	Range	Minimum	Maximum	Mean	Std. Error of Mean
Differential Reinforcement 1	361	14	-8	6	-4.32	.166
Differential Reinforcement 2	361	19	8	27	19.71	2.417
Differential Association 1	361	12	0	12	4.78	.146
Differential Association 2	360	30	0	30	20.91	.198
Differential Association 3	361	43	0	43	12.13	.415
Imitation	361	28	0	28	12.50	.308
Definitions	361	23	9	32	28.17	.179
Power- Blood Wolfe Scale	361	37	0	37	18.33	.777
Power 2- Attractiveness	361	3	1	4	3.04	.047

APPENDIX E

FREQUENCIES OF VIOLENCE

Table E1

Frequency Table: Where Did Violence Occur?

Variable	Frequency	Percent	Cumulative Percent
Where Violence Occurred			
IUP student	22	6.1	6.1
Student elsewhere	27	7.5	13.6
Non-Student	24	6.6	20.3
Never a victim	286	79.6	100.0
Missing Data	2	0.6	
Total			

Table E2

Frequency Table: Physical Violence (Perpetrated and Victimization)

*- total score Minimum 0, Maximum 14 (0-7 perpetrated, 0-7 victimization)

Variable	Frequency	Percent	Cumulative Percent
Physical Kicking			
0	329	91.1	91.4
1	5	1.4	92.8
2	8	2.2	95.0
3	4	1.1	96.1
4	5	1.4	97.5
5	1	0.3	97.8
6	2	0.6	98.3
7	2	0.6	98.9
8	1	0.3	99.2
14	3	0.8	100.0
Missing Data	1	0.3	
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Physical Slapping			
0	293	81.2	81.2
1	18	5.0	86.1
2	15	4.2	90.3
3	6	1.7	92.0

Variable	Frequency	Percent	Cumulative Percent
4	4	1.1	93.1
5	4	1.1	94.2
6	4	1.1	95.3
7	8	2.2	97.5
8	1	0.3	97.8
11	1	0.3	98.1
12	1	0.3	98.3
14	6	1.7	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Physical Beat			
0	348	96.4	96.4
1	4	1.1	97.5
3	1	0.3	97.8
4	3	0.8	98.6
5	1	0.3	98.9
7	2	0.6	99.4
14	2	0.6	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Physical Hit			
0	314	87.0	87.0
1	11	3.0	90.0
2	12	3.3	93.4
3	5	1.4	94.7
4	6	1.7	96.4
6	2	0.6	97.0
7	4	1.1	98.1
8	1	0.3	98.3
12	1	0.3	98.6
14	5	1.4	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Physical Choke			
0	339	93.9	93.9

Variable	Frequency	Percent	Cumulative Percent
1	4	1.1	95.0
2	4	1.1	96.1
3	3	0.8	97.0
4	2	0.6	97.5
5	1	0.3	97.8
6	1	0.3	98.1
7	4	1.1	99.2
11	1	0.3	99.4
14	2	0.6	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Physical Slam			
0	313	86.7	86.7
1	14	3.9	90.6
2	5	1.4	92.0
3	5	1.4	93.4
4	5	1.4	94.7
5	2	0.6	95.3
6	5	1.4	96.7
7	8	2.2	98.9
8	1	0.3	99.2
13	1	0.3	99.4
14	2	0.6	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Physical Grab			
0	262	72.6	72.6
1	16	4.4	77.0
2	23	6.4	83.4
3	4	1.1	84.5
4	7	1.9	86.4
5	7	1.9	88.4
6	11	3.0	91.4
7	8	2.2	93.6
8	9	2.5	96.1

Variable	Frequency	Percent	Cumulative Percent
9	1	0.3	96.4
10	1	0.3	96.7
12	2	0.6	97.2
14	10	2.8	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Physical Threw			
0	276	76.5	76.7
1	16	4.4	81.1
2	19	5.3	96.4
3	11	3.0	89.4
4	6	1.7	91.1
5	3	0.8	91.9
6	8	2.2	94.2
7	5	1.4	95.6
8	3	0.8	96.4
9	1	0.3	96.7
10	1	0.3	96.9
11	1	0.3	97.2
12	1	0.3	97.5
14	9	2.5	100.0
Missing Data	1	0.3	
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Physical Gun			
0	353	97.8	97.8
1	1	0.3	98.1
2	2	0.6	98.6
7	2	0.6	99.2
12	1	0.3	99.4
14	2	0.6	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Physical Pushed			
0	242	67.0	67.0

Variable	Frequency	Percent	Cumulative Percent
1	15	4.2	71.2
2	20	5.5	76.7
3	13	3.6	80.3
4	12	3.3	83.7
5	3	0.8	84.5
6	18	5.0	89.5
7	12	3.3	92.8
8	4	1.1	93.9
9	3	0.8	94.7
10	5	1.4	96.1
12	3	0.8	97.0
14	11	3.0	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Physical Twist			
0	309	85.6	85.6
1	9	2.5	88.1
2	9	2.5	90.6
3	6	1.7	92.2
4	3	0.8	93.1
5	2	0.6	93.6
6	8	2.2	95.8
7	5	1.4	97.2
8	3	0.8	98.1
9	1	0.3	98.3
12	2	0.6	98.9
14	4	1.1	100.0
Total	361	100.0	
Variable	**Frequency**	**Percent**	**Cumulative Percent**
Physical Burn			
0	350	97.0	97.0
1	1	0.3	97.2
2	1	0.3	97.5
3	1	0.3	97.8
4	1	0.3	98.1

Variable	Frequency	Percent	Cumulative Percent
5	1	0.3	98.3
6	1	0.3	98.6
7	1	0.3	98.9
8	1	0.3	99.2
9	1	0.3	99.4
14	2	0.6	100.0
Total	361	100.0	

APPENDIX F

CROSS-TABULATIONS

Table F1

Cross-tabulations: Perpetrated Violence with Gender and Twenty-four Life Changing Events

Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
Did Not Move	82	48.5	62	32.3
Moved	31	18.3	36	18.8
Any Act of Violence				
Did Not Move	39	23.1	55	28.6
Moved	16	9.5	39	20.3
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
Was Not Fired	107	63.3	95	49.5
Fired	7	4.1	3	1.6
Any Act of Violence				
Was Not Fired	51	30.2	92	47.9
Fired	4	2.4	2	1.0
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
Not Deployed	103	60.9	96	50
Deployed	11	6.5	2	1.0
Any Act of Violence				
Not Deployed	54	32.0	94	49
Deployed	1	0.6	0	0.0
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Academic Probation	99	58.6	93	48.4
Academic Probation	15	8.9	5	2.6
Any Act of Violence				
No Academic Probation	49	29	80	41.7
Academic	6	3.6	14	7.3

Probation				
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Excessive Partying	92	54.4	88	45.8
Excessive Partying	22	13	10	5.2
Any Act of Violence				
No Excessive Partying	30	17.8	67	34.9
Excessive Partying	25	14.8	27	14.1
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Psych Problems	102	60.4	85	44.3
Psych Problems	12	7.1	13	6.8
Any Act of Violence				
No Psych Problems	52	30.8	76	39.6
Psych Problems	3	1.8	18	9.4
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No New Love Relationship	78	46.2	56	29.2
New Love Relationship	36	21.3	42	21.9
Any Act of Violence				
No New Love Relationship	37	21.9	54	28.1
New Love Relationship	18	10.7	40	20.8
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Sexual Problems	108	63.9	93	48.4
Sexual Problems	6	3.6	5	2.6

Any Act of Violence				
No Sexual Problems	54	30.2	81	42.2
Sexual Problems	4	2.4	13	6.8
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
Did Not Study Abroad	111	66.1	94	4.9
Studied Abroad	2	1.2	4	2.1
Any Act of Violence				
Did Not Study Abroad	53	31.5	87	45.3
Studied Abroad	2	1.2	7	3.6
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Financial Setback	97	57.4	78	40.6
Financial Setback	17	10.1	20	10.4
Any Act of Violence				
No Financial Setback	44	26	78	40.6
Financial Setback	11	6.5	16	8.3
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
Was Not Arrested	105	62.1	97	50.5
Arrested	9	5.3	1	0.5
Any Act of Violence				
Was Not Arrested	49	29	94	49
Arrested	6	3.6	0	0.0
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Roommate	95	56.2	71	37

Problems				
Roommate Problems	19	11.2	27	14.1
Any Act of Violence				
No Roommate Problems	46	27.2	67	34.9
Roommate Problems	9	5.3	27	14.1
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Alcohol or Drug Problems	106	62.7	88	45.8
Alcohol or Drug Problems	8	4.7	10	5.2
Any Act of Violence				
No Alcohol or Drug Problems	41	24.3	81	42.2
Alcohol or Drug Problems	14	8.3	13	6.8
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Illness or Injury to family	105	62.1	65	33.9
Illness or Injury to family	9	5.3	33	17.2
Any Act of Violence				
No Illness or Injury to family	48	28.4	70	36.2
Illness or Injury to family	7	4.1	24	12.5
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
Did Not Lose Virginity	108	63.9	82	42.7
Lost Virginity	6	3.6	16	8.3
Any Act of Violence				
Did Not Lose Virginity	52	30.8	79	41.1
Lost Virginity	3	1.8	15	7.8

Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Pregnancy	110	65.1	97	50.5
Unwanted Pregnancy	4	2.4	1	0.5
Any Act of Violence				
No Pregnancy	52	30.8	92	47.9
Unwanted Pregnancy	3	1.8	2	1.0
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No New Job	88	52.1	63	32.8
New Job	26	15.4	35	18.2
Any Act of Violence				
No New Job	42	24.9	69	35.9
New Job	13	7.7	25	13.0
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
Did Not Change Schools	86	51.2	59	30.7
Change Schools	27	16.1	39	20.3
Any Act of Violence				
Did Not Change Schools	41	24.4	63	32.8
Change Schools	14	8.3	31	16.1
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Lawsuit	109	64.5	95	49.5
Involved in Lawsuit	5	3.0	3	1.6
Any Act of Violence				
No Lawsuit	53	31.4	92	47.9
Involved in Lawsuit	2	1.2	2	1.0
Variable	Male		Female	
	N	Percentage	N	Percentage

No Acts of Violence				
No Major Illness	109	64.5	90	46.9
Major Illness	5	3	8	4.2
Any Act of Violence				
No Major Illness	51	30.2	85	44.3
Major Illness	4	2.4	9	4.7
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Problems with Courses	93	55.0	70	36.5
Problem with Courses	21	12.4	28	14.6
Any Act of Violence				
No Problems with Courses	42	24.9	78	40.6
Problem with Courses	13	7.7	16	8.3
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Divorce	113	66.9	97	50.5
Divorced	1	0.6	1	0.5
Any Act of Violence				
No Divorce	55	32.5	92	47.9
Divorced	0	0	2	1.0
Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
Did Not Breakup with Partner	83	49.1	75	39.1
Broke up with Partner	31	18.3	23	12.0
Any Act of Violence				
Did Not Breakup with Partner	39	23.1	51	26.6
Broke up with Partner	16	9.5	43	22.4

Variable	Male		Female	
	N	Percentage	N	Percentage
No Acts of Violence				
No Death	93	55	58	30.2
Death of a loved one	21	12.4	39	20.3
Any Act of Violence				
No Death	40	23.7	61	31.8
Death of a loved one	15	8.9	33	17.2

APPENDIX G

CORRELATION MATRIX

Variable	Psyc Perp	Psyc Vict	Phys Perp	Phys Vict	Age	Gender	Race	Greek	Athlete	DA	Imitate	Def	DR	Pcbw	Attract
Psyc Perp	**1**	**0.910****	**0.733****	**0.648****	**0.032**	**0.141****	**-0.047**	**-0.007**	**0.103**	**0.363****	**0.250****	**-0.080**	**0.217****	**-0.090**	**0.023**
Psyc Vict	**0.910****	**1**	**0.675****	**0.743****	**0.036**	**0.080**	**-0.046**	**-0.003**	**0.116***	**0.305****	**0.228****	**-0.054**	**0.180****	**-0.086**	**0.045**
Phys Perp	**0.733****	**0.675****	**1**	**0.808****	**-0.046**	**0.098**	**-0.001**	**0.019**	**0.078**	**0.234****	**0.155****	**-0.075**	**0.192****	**-0.100**	**0.042**
Phys Vict	**0.648****	**0.743****	**0.808****	**1**	**0.013**	**0.009**	**-0.003**	**-0.014**	**0.059**	**0.198****	**0.143****	**-0.050**	**0.146****	**-0.061**	**0.037**
Age	**0.032**	**0.036**	**-0.046**	**0.013**	**1**	**-0.226****	**-0.057**	**-0.134***	**0.118***	**-0.084**	**0.042**	**0.045**	**-0.070**	**-0.007**	**-0.039**
Gender	**0.141****	**0.080**	**0.098**	**0.009**	**-0.226****	**1**	**0.024**	**0.134***	**0.105***	**0.092**	**0.059**	**0.159****	**0.334****	**0.067**	**-0.006**
Race	**-0.047**	**-0.046**	**-0.001**	**-0.003**	**-0.057**	**0.024**	**1**	**-0.063**	**0.018**	**-0.050**	**-0.125***	**0.002**	**-0.052**	**-0.003**	**-0.011**
Greek	**-0.007**	**-0.003**	**0.019**	**-0.014**	**-0.134***	**0.134***	**-0.063**	**1**	**0.000**	**0.026**	**0.034**	**0.017**	**0.012**	**0.005**	**0.019**
Athlete	**0.103**	**0.116***	**0.078**	**0.059**	**0.118***	**0.105***	**0.018**	**0.000**	**1**	**-0.006**	**-0.003**	**-0.025**	**0.146****	**-0.087**	**-0.006**
DA	**0.363****	**0.305****	**0.234****	**0.198****	**-0.084**	**0.092**	**-0.050**	**0.026**	**-0.006**	**1**	**0.377****	**-0.090**	**0.182****	**0.119***	**-0146****
Imitate	**0.250****	**0.228****	**0.155****	**0.143****	**0.042**	**0.059**	**-0.125***	**0.034**	**-0.003**	**0.377****	**1**	**-0.024**	**0.125***	**0.087**	**-0141****
Def	**-0.080**	**-0.054**	**-0.075**	**-0.050**	**0.045**	**0.159****	**0.002**	**0.017**	**-0.025**	**-0.090**	**-0.024**	**1**	**-0.172****	**0.070**	**-0.066**
DR	**0.217****	**0.180****	**0.192****	**0.146****	**-0.070**	**0.334****	**-0.052**	**0.012**	**0.146****	**0.182****	**0.125***	**-0.172****	**1**	**-0.012**	**-0.046**
Pcbw	**-0.090**	**-0.086**	**-0.100**	**-0.061**	**-0.007**	**0.067**	**-0.003**	**0.005**	**-0.087**	**0.119***	**0.087**	**0.070**	**-0.012**	**1**	**-0.541****
Attract	**0.023**	**0.045**	**0.042**	**0.037**	**-0.039**	**-0.006**	**-0.011**	**0.019**	**-0.006**	**-0.146****	**-0141****	**-0.066**	**-0.046**	**-0.541****	**1**

** correlation is significant at the 0.01 level (2-tailed).

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