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Exploring the role of social support in heterosexual women's use and receipt of non-lethal intimate partner violence

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Exploring the Role of Social Support in Heterosexual Women's Use and Receipt of Non-Lethal Intimate Partner Violence

by

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Dedication

This dissertation is dedicated to my son Zachary.

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ABSTRACT

The concept of social support has been found to be a protective factor in women's intimate partner violence victimization. However, little is known about the relationship between women's social support and their intimate partner violence perpetration. Research evidence demonstrates that women's perpetration of violence is surprisingly frequent, particularly in women younger than age 30. This study investigated the role of social support in heterosexual women's use and receipt of non-lethal aggression against an intimate partner among 673 female college students. The implications of these findings for research and practice are discussed.

Chapter One

Introduction

In recent years a considerable body of literature has focused attention on the concept of social support. Social support has been broadly defined as information that prompts a person to believe she/he is “cared for, loved, esteemed, and valued and is a member of a network of common and mutual obligation” (El-Bassel, Gilbert, Rajah, Foleno, & Frye, 2001, p. 247). Overall, this research shows that "social support is a valuable social commodity and those who are endowed with social support are better off in most instances than those who are not" (Hobfoll & Vaux, 1993, p. 685). Social support has been found to have a major positive effect on psychological and physical health.

A significant body of research has examined the protective role social support plays in women’s victimization by an intimate partner. Social support has been found to have a positive influence on abused women’s ability to emotionally adapt to their situation or to make the decision to leave the abusive relationship (Larance, 2004). In addition, greater social support has been found to be associated with a significantly reduced risk of a range of mental health outcomes (e.g., depression, anxiety, PTSD) among abused women (Coker, 2003). This literature has focused primarily on clinical samples of abused and/or drug addicted women (e.g., El Bassel, Gilbert, Rajah, Foleno, & Frye, 2004; Kocot & Goodman, 2003; Farris & Feenaghty, 2002).

Comparatively little is known about the impact of social support on women's use of aggression against an intimate partner. Within the past decade, the concept of social support has been applied to understanding crime perpetration and deviance (Cullen, 1994; Cullen & Wright, 1997). Cullen (1994) suggests that social support can have a deterrent effect on motivation for crime and deviance and, therefore, research should focus on the preventative effects of social support.

In general, the study of women's use of aggression against an intimate partner is widely debated. Some researchers have argued that research on female aggression may be used to blame women for instigating their own abuse, and that a focus on female aggression will draw attention away from men's far more lethal aggression (White & Kowalski, 1994). These researchers assert that women do not initiate violence, but rather use it in self-defense.

Proponents of studying women's use of aggression argue a different perspective. They acknowledge that male violence within the home causes or has the potential to cause the most physical harm; however, they propose that it is not the whole story. They argue that a failure to consider intimate partner violence in its entirety, namely by excluding female aggressors, will lead to violence that is either disregarded or inadequately addressed.

The intention of the current research is to explore the role of social support in both intimate partner violence victimization and offending among women. This research will explore two main questions. First, does social support reduce the likelihood of women's victimization by an intimate partner? Second, does social

support reduce the likelihood of women's use of aggression against an intimate partner?

Chapter two will examine the research on women's use of aggression against an intimate partner. This chapter will discuss the debate that is currently going on regarding studying women's use of aggression and discuss why continued research in this area is necessary. Chapter three will examine the concept of social support. This chapter will explore the multidimensional nature of the concept of social support and discuss which types of social support appear to be most important to individuals. This chapter will also discuss the research on the role of social support in women's victimization by an intimate partner. I will review and critique the previous research that has been conducted in this area and suggest that social support may also have a protective effect on perpetration. Chapter four will detail the methods used to investigate the role of social support in women's use and receipt of intimate partner violence. Chapter five will present the results of the current research. Finally, chapter six will discuss the findings and implications for future research in this area.

Chapter Two

Women's use of aggression against an intimate partner

One of the most pervasive and undisputed gender stereotypes is that men are more aggressive than women. White and Kowalski (1994) describe this assertion as the "myth of the nonaggressive woman." Assumptions of male aggression and female victimization are so taken for granted that they have influenced where researchers have looked and how researchers have decided "what is known to be true" about intimate partner violence. Because of the notion that aggression is a predominantly male attribute, researchers have disproportionately used male as opposed to female participants in their research studies on use of aggression against an intimate partner (White & Kowalski, 1994).

Although gender stereotypes dictate that anger and aggression are predominantly male domains, research does not support this claim. Research evidence suggests that women's perpetration of violence in the context of intimate relationships is surprisingly frequent, particularly in women younger than age 30 (Straus, 1993; Salari & Baldwin, 2002; Katz, Kuffel, & Coblentz, 2002; Makepeace, 1986; Archer, 2000; Underwood, 2003). These findings raise the question as to whether male violence against women should be the primary and/or exclusive focus of empirical investigation in intimate partner violence research.

I will begin by discussing the history of the study of intimate partner violence. Much of the current thought on intimate partner violence has to do with how it was constructed as a social problem. I will then discuss the research on gender differences in intimate partner violence and conclude with a discussion of gender roles and how gender roles and socialization may influence men and women's use of aggression against an intimate partner.

History of the Study of Intimate Partner Violence

Intimate partner violence was once an unspoken crime. Violence against a family member (e.g., spouse, child) was considered to be a socially acceptable use of aggression. It was viewed as an essentially private, family matter not within the parameters of legal concern. Police frequently ignored family violence calls or purposefully delayed responding for hours. The first radical alteration of this paradigm came about in the early 1970s, through the work of Second Wave feminists. During the 1970s, the women's liberation movement began to criticize and bring attention to all types of abuse against women. Because they were concentrating on the problems of women--transforming what were once considered personal issues into political issues--they exposed the female victims of domestic assault. Terms such as "battered wives" and "wife abuse" were developed to name the violence that women were experiencing from their husbands or male partners (Frieze, 2000). This new terminology provided many abused women with a way to identify, recognize, and express their experiences. In addition, these terms assisted in establishing domestic violence as an

identifiable social problem and provided society with a way to talk about these issues.

Research from the feminist perspective began with a narrow focus on the issue of wife beating, developing a literature that focused on factors specific to violence perpetrated *against* women by their male partners (Johnson, 1995). Theoretically, the emphasis was upon historical traditions of the patriarchal family, contemporary constructions of masculinity and femininity, and structural constraints that make escape difficult for women who are systematically beaten (e.g., Dobash & Dobash, 1977). The patriarchal structure of society was seen as encouraging and legitimizing men's violence towards their wives, through an ideological and a legal framework.

Feminist researchers gleaned their understanding of intimate partner violence from a wide variety of evidence, including clinical observations, narrative accounts of victims and batterers, the experience of advocates, and qualitative data taken from police and medical sources. This evidence supported the notion that domestic violence was a pattern perpetrated by men and was rooted deeply in the patriarchal traditions of the Western family. Clinical cases were highlighted to capture public attention and also served to solidify the public perception that "domestic violence" was a euphemism for physical violence perpetrated by males against their female spouse.

Soon after, research began to reveal that physical violence in the home actually claimed victims of both sexes. Researchers who were interested in resolution of conflict within families began to find that the victims of marital

violence were not always women and that women could also display physical violence toward their male partners (e.g., Straus, 1979; 1993; Gelles, 1985; Gelles & Straus, 1988). In the mid-1970s Straus and colleagues reported that women self-reported physically assaulting partners in marital and cohabitating relationships as often as men self-reported physically assaulting their partners. Violence between husbands and wives, which they called “spouse abuse,” was viewed as part of a pattern of violence occurring among all family members. This work was particularly associated with data obtained using the Conflict Resolutions Scale (now called the Conflict Tactics Scale) developed by Straus (1979).

Family conflict studies asked about all possible experiences of physical violence, including minor and severe forms and violence that does not result in injury, and placed ending physical violence at the center of their agenda. Violent behavior was viewed as the central problem to be addressed. Accordingly, physical violence by women was held to be equally as problematic as physical violence by men.

Rather than using limited clinical samples that did not offer grounds for generalizability, family violence research relied primarily on representative samples of the general population to produce estimates of prevalence. Findings suggested that rates of physical violence by men and women appeared to be equal. This research shifted the focus from studying only men to studying both men and women as perpetrators.

Reports of gender symmetry in violent assaults ran counter to what feminist researchers and the general public thought they "knew" to be true of domestic violence. These conclusions did not fit with their fundamental analysis of wife assault--that it was an extension of male political, economic, and ideological dominance over women. The response by many activists was to doubt the conclusions of family violence studies, criticize the study, and/or threaten the investigator.[1] Female initiation and perpetration of violence was considered to be an anomaly. Accepting this anomaly as commonplace necessitated the reconstruction of prior theory and the re-evaluation of prior "facts."

Many feminist scholars argued that women were too passive to perpetrate abusive acts against their spouses. Others suggested that men, because of their typically larger physiques, were not capable of being abused by their wives. Still others proposed that women were less capable than men of inflicting serious harm or injury on a man and that, therefore, physical violence by a woman against her spouse was more socially acceptable (White & Kowalski, 1994). Many feminist scholars argued that measurement tools of family violence researchers did not explore the context of the violence (e.g., Dobash & Dobash, 1977; 2000). Feminists appeared less concerned with who was more aggressive, women or men, and more focused on the outcome of aggression.

[1] For example, after Suzanne Steinmetz proposed the "battered husband syndrome" in an article published in 1978 in *Victimology*, a speech she was asked by the ACLU to give was canceled because the organization received a bomb threat (Pearson, 1997).

The debate has continued to rage for the past thirty years. The discrepancies between claims of gender symmetry and claims of drastic gender asymmetry have led to significant confusion among policy makers and the general public. As a result of the contradictory findings produced by disparate definitions and methods, increased efforts have been made by both feminist and family violence researchers to explore the differences between men and women in the types, motives, and the psychological and physical consequences of the violence perpetration.

The following review of available research will focus on studies that have investigated men and women's violence towards their heterosexual intimate partners. Research suggests that the contexts and dynamics in same-sex and heterosexual relationships are different enough to warrant separate discussions. Thus, the review does not include the growing body of findings on intimate partner violence in same-sex couples (see Renzetti, 1992; Burke & Follingstad, 1999; Elliot, 1996; Lie & Gentlewarrier, 1991).

Furthermore, this summary will concentrate on non-lethal violence in heterosexual relationships. In a lethal altercation between partners, men are predominantly the offenders and women are much more likely to be the victims (Browne, 1987; Serran & Firestone, 2004). Nevertheless, women are capable of violence and do occasionally kill their intimate partners. The majority of literature regarding women’s use of lethal violence over the past 15 years has been concerned with women in abusive relationships who kill their abusers (see Walker, 1979; Browne, 1987). This research suggests that women generally do

not kill, but when they do, it is often in their own defense (Walker, 1979; Browne, 1987).

Gender Differences in Heterosexual Non-Lethal Intimate Partner Violence

Difference in type of violence. An examination of available data provides many examples of gender differences in types of non-lethal aggression used against intimate partners. DeKeseredy, Saunders, Schwartz, and Alvi (1997) found that many of the Canadian female respondents in their survey reported using violence against their heterosexual dating partners. Only a small percentage, however, reported violence that was likely to cause serious injuries, such as "beating up" or "using a weapon." In Makepeace's (1986) student sample, although women reported perpetrating as much psychological and physical violence as men, women reported being forced to have sex (24%) at much higher rates than men (3%). Swan and Snow (2002) found in their sample of women who had used aggression against an intimate partner in the past six months that the abusive behaviors that women commit are different from men's abuse. Women committed significantly more acts of moderate violence (e.g., throwing things and threatening to hit) against their partners than their partners committed against them. The women's partners, however, committed almost one and a half as many acts of severe physical violence against them as vice versa (e.g., choking). These results suggest that men and women use different types of aggression against an intimate partner.

Differences in motive and context. Although studies have begun to pay some attention to the contexts and motivations of women's and men's violent

behavior, they tend to focus on single or very limited explanatory conditions. Specifically, studies of men's violent behavior towards intimate partners have focused on control as a primary motivation (Dobash & Dobash, 1977; Dobash, Dobash, Cavanuagh & Lewis, 1998). In contrast, studies of women's violent behavior toward intimate partners have focused on self-defense as a primary motivation (DeKeseredy & Schwartz, 1998). A review of the research indicates that neither of these provides a completely accurate accounting of physical violence against an intimate partner.

In studies of general aggression use against another individual, qualitative and quantitative work (Campbell & Muncer, 1987; Campbell, Muncer & Coyle, 1992; Campbell, Muncer & Gorman, 1993) has suggested that men (more than women) represented their aggression as an instrumental act aimed at taking control over others, whereas women (more than men) represented their aggression as an expressive act resulting from a temporary loss of control. Women spoke of feeling overwhelmed by arousal and anger, losing their self-control, and subsequently feeling guilty and ashamed of their behavior. Men described their aggression as an attempt to take control over a threatening or anarchic situation, emphasizing moral rectitude and subsequent mastery. This research did not specify the target of aggression as an opposite sex intimate partner.

Interestingly, follow-up studies specifying the target of aggression as an opposite sex intimate partner have found no indication of an association between expressive beliefs and physical aggression in women but a positive association in

men (Archer & Graham-Kevan, 2003). For women, there was some indication of a positive association between instrumental beliefs and physically aggressive acts, although this correlation was weaker than for men. These findings appear inconsistent with a strictly "control" motivation for men and a strictly "self-defense" motivation for women.

Many researchers studying women's violent behavior toward intimate partners have asserted that women's main motivation is self-defense. DeKeseredy and Schwartz (1998) report that the majority of women in their college sample who used physical aggression toward their dating partners never initiated violence; the common motive for violence was self-defense. Follingstad and colleagues (1991), however, found that college men were more likely than women to report using physical violence in retaliation for being hit first. Harned (2001) found that male and female college students were equally likely to use physical violence for self-defensive purposes. Women reported using physical violence due to anger or jealousy more often than men. A number of other studies point to a variety of reasons for women's assaultive behaviors that range from retaliating or punishing from past hurt, to gaining emotional attention, expressing anger, and reacting to frustration as well as stress (Hamberger & Potente, 1996; Follingstad, Wright, & Sebastian, 1991; Fiebert & Gonzalez, 1997; Straus, 1999; Dasgupta, 1999; Dasgupta, 2002; Miller & White, 2003). Taken individually, the majority of these reasons would not generally meet the standards of legal or social approval as they are not executed in self-defense.

Differences in Consequence. Despite the fact that both men and women report using physical aggression against an intimate partner, women are more likely to sustain serious injury than are men. Past research has demonstrated greater negative consequences of partner violence for women relative to men (Foshee, 1996; Makepeace, 1986; Katz, Kuffel, & Coblentz, 2002). Far more men than women kill their spouses (Kimmell, 2002). Women, on average, suffer much more frequent and more severe injury (physical, economic, and psychological) than men do (Kimmell, 2002; Dobash, Dobash, Cavanaugh, & Lewis, 1998).

For the most part, legislators, policy makers, legal and social service professionals, and community advocates have dealt with the issue of "intimate partner violence" as primarily men's violence against women. Clearly, the evidence demonstrates that women are also using aggression against their intimate partners. These findings suggest that male violence against women should not be the exclusive focus of empirical investigation on intimate partner violence.

Although gender stereotypes dictate that the expression of anger and aggression are predominantly male domains, research does not support this claim (Underwood, 2003; Archer, 2000). Numerous studies have found that women are initiating aggression in intimate relationships. When women show instances of "masculine" forms of aggression involving direct physical confrontation, however, these are seen as pathological or due to hormonal imbalance, or their actions are unreported, or seen as insignificant.

Implicit views about women's nature have influenced the way that research findings have been interpreted. There appears to be a strong desire to avoid seeing women as willful aggressors or recognizing female aggressive behavior as instrumental and intelligent (Naffine, 1987). For example, Macaulay (1985) identified seven beliefs associated with aggression in women: women are nonaggressive, "sneaky" in their expression of aggression, unable to express anger, prone to outbursts of "fury," psychologically distressed if they are aggressive, aggressive in defense of their children, and motivated to aggress by jealousy. Women's acts of aggression are thought to be the result, not of their own willful agency, but the result of hormones or abuse (Pearson, 1997).

When some scholars concede the possibility of female aggression and violence, they hasten to add that women engage only in "expressive" aggression. Women do not, these scholars maintain, engage in "instrumental" aggression, the kind that is calculating. Women are constructed as victims rather than as actors in the violence they perpetrate against an intimate partner.

In conceptualizing a battered woman, society has constructed her as a passive and helpless victim, who is too paralyzed by the abuse to take any actions on her own behalf. In conceptualizing a batterer, society has constructed him as a controlling and domineering person, who is instrumental in his aggression to achieve ultimate control of a woman's life. Neither of these conceptualizations is correct as the prototype. They fit very well with traditional beliefs about men and women. Careful analysis of research, however, suggests that these beliefs need to be re-evaluated. Historically, these conceptualizations

were useful to bring to light the devastating impact of intimate partner violence and to make society aware that this problem needed and demanded attention. These conceptualizations fit well with society's stereotypes of men and women. For policy purposes, these ideas were easier to sell to the general public. Research has demonstrated that men and women are both using aggression within intimate partner relationships.

Research findings suggest that women's violence differs from that perpetrated by men in terms of type of aggression used, motivation, and the consequences of violence. These findings thus make it impossible to interpret the violence of men and women as interchangeable. Women's use of aggression must be understood in and of itself, not simply in counterpoint to men's actions. The fact that violence by men has more serious physical consequences should not cause us to ignore violence by women as a topic worthy of research. To deny the fact that women too are violent or to hold that violence by women is unimportant or even justified does a grave disservice not only to the research enterprise, but ultimately to women as well. "By denying the possibility of female agency…. theorists are with the best of intentions, actually denying women the full freedom to be human" (Morrissey, 2003, pg. 102). Use of violence by women must not only be recognized but also acknowledged as a legitimate area of investigation.

The majority of studies that have investigated women's use of aggression have examined women's aggression secondary to and/or in comparison with men's use of aggression. Further, there has been a tendency to apply

explanations for male offending to females. While much has been written and theorized about male-on-female intimate partner violence, less is understood about female-on-male intimate partner violence. Generalizing male results to females implies a false sense of equality in the use of violence and leaves gaps in knowledge as to how this problem affects women specifically. In addition, focusing on differences between women and men without addressing overall context makes the implicit assumption that women and men operate in similar social contexts or that social context is irrelevant.

It is well documented that there are different societal expectations and social contexts for men and women in relation to behavior. Certain expectations and roles are assigned to men, while others are assigned to women. Society has behavioral expectations that men are unemotional, self-focused, active, and aggressive. Society expects women to be passive, submissive, and unassertive. Male-on-female violence may be understood within the context of society's expectations of what men "do." Men are expected to be dominant and aggressive; therefore, aggression in men is not surprising. This explanation does not work for females. The cultural norms of women's violence are quite the opposite. Cultural prescriptions for gender roles generally prohibit women from engaging in aggressive actions targeting their male partners (Dasgupta, 1999). Females are not socialized to be dominant and aggressive; conversely, females are socialized to be community-oriented and passive. Nevertheless, some women are using aggression against their intimate partners. Researchers must resist the temptation to approach female intimate partner violence as the

adoption of masculinity. Women's actions must be understood in and of themselves within the context of the feminine gender role.

Feminine Gender Role

A gender role describes an individual or socially prescribed set of behaviors and responsibilities. In essence, a gender role comprises all the things that people do to express their individual gender identities. Gender roles are not biologically determined; they are socially constructed. The traditional feminine gender role prescribes that women are dependent, emotional, sexually passive, and responsible for providing the emotional support and nurturing to family members and the sick (Bem, 1983). Traditional roles for women tend to be relationship-oriented, where a woman's sense of self becomes very much organized around being able to make and maintain affiliation and relationships (Shumaker & Hill, 1991). Despite women's lib and the focus on equal rights for men and women, society's expectations have not changed significantly over the last couple of generations.

The process by which the individual is encouraged to adopt and develop certain gender roles is called socialization. Socialization works by encouraging wanted and discouraging unwanted behavior. It is well documented that men and women experience differential socialization (Deaux, 1984; Deaux & Major, 1987; Eagly, 1987). Research suggests that this differential socialization begins at the moment of birth (e.g., Deaux, 1984; Eagly, 1987; Bem, 1983; Bigler, 1997). Society has expectations (i.e., attitudes and beliefs) regarding appropriate male and female behaviors (Bem, 1983; Epstein, 1988). Individuals internalize

societal expectations and conform to gender role norms (Eagly, 1987). By age 4 or 5, most children have developed and internalized gender stereotypic attitudes and beliefs (Bem, 1983; Bigler, 1997). This process has been found to continue throughout an individual's life, even in the absence of any social or institutional pressures (Eagly, 1987; Bem, 1983).

The feminine gender role is associated with an expressive and communal orientation, a concern for the relationship between oneself and others (Bem, 1983). An exploration of the feminine gender role reveals the high salience of social support in the lives of women. Theory on gender role expectations would predict variations between males and females on the salience of social support. Research on gender differences and social support confirm this expectation, suggesting that men and women have different support needs, elicit support in different ways, and that perceptions, context, expectations, and the meaning of support are different for men and women (Weber, 1998).

Research suggests that women receive and want more social support than men and are more likely to acknowledge the need for help or assistance, thereby explicitly fostering socially supportive relationships (Gilligan, 1982; Shumaker & Hill, 1991; Markward, McMilan, & Markward 2003). In addition, women are more likely to be informal supports than men and are also more likely to be formal supports (e.g., teachers, nurses, social workers). Shumaker and Hill (1991) note that across the lifespan, women are more likely than men to be both support receivers and support givers.

The literature reveals that there are cultural reasons why women are main receivers and givers of support (Weber, 1998). Males are socialized to focus on autonomy, self-reliance, and independence and to de-emphasize the expression of feelings. This socialization process does not encourage the formation of social support networks for men. Females are socialized to be verbally expressive and to focus on warmth and a search for intimacy; therefore, searching for social support in one's environment is a well-learned and highly valued pattern for women (Olson & Schultz, 1994).

Searching for and having social support in one's environment has been linked extensively, both directly and indirectly, to physical and mental health and well-being (Weber, 1998). For example, social support has been linked to enhanced immune function, improved coping with a medical condition, and reduced mortality (Weber, 1998). Therefore, it appears that searching for social support is a highly useful and highly beneficial characteristic of the feminine gender role. The next chapter will focus more closely on the research on social support both in general and specifically with respect to crime and violence.

Chapter Three

Social Support

What is social support? Social support is a multidimensional construct that can involve both tangible and/or intangible aid. The broadness and complexity of the social support construct has required investigators to make several distinctions.

Distinctions in Social Support

Kinds of support. The first distinction that has received attention is the distinction among the kinds or types of support. Researchers have suggested that there are four main types of social support: emotional, instrumental, informational, and appraisal support (Weber, 1998). Emotional support involves the provision of empathy, love, trust, and caring. Instrumental support involves the provision of tangible aid and services that directly assist a person in need, such as babysitting, money, groceries, etc. Informational support involves the provision of advice, suggestions, and information that a person can use to address problems. The information that is given is not in and of itself helpful; instead, it helps people to help themselves. Appraisal support involves the provision of information that is useful for self-evaluation purposes such as constructive feedback, affirmation, and social comparison. The different kinds of social support appear to serve different functions to individuals. Of the four

forms, researchers have considered emotional support to be the primary component of social support (House, 1991; Helgeson, 1993).

Perceived vs. received support. The second distinction that has been given attention is the distinction between perceptions of support and actual receipt of support (Lakey & Cassady, 1990; Helgeson, 1993; Weber, 1998). In order for support to be helpful, it needs to be perceived as helpful. Therefore, support depends on the perceptions of the recipient. Weber (1998) describes perceived social support as the cognitive appraisal of being connected to others and knowing that support is available if needed. Two key dimensions of perceived social support are perceived availability and perceived adequacy of supportive connections (Barerra, 1986).

Received supports are the resources actually provided to the recipient. Received support has been assessed by direct observation or by asking people to indicate whether specific supportive acts have occurred. In studies that examine both perceived and received support, the perception of support seems to be a better predictor of health outcomes than the actual receipt of support (Wethington & Kessler, 1986; Helgeson, 1993; Norris & Kaniasty, 1996).

Levels of social support. The third distinction that has been given attention is between various social levels of social support. Social support exists at several levels of society. It exists in the intermediate interactions within families and among friends and within larger social networks of neighborhoods, communities, and nations.

Sources of social support. The fourth distinction that has been given attention is the distinction among the differential sources of social support. Support can be delivered by either a formal agency or through informal relations. Formal support includes social support from schools, government assistance programs, and the criminal justice system. Informal support includes support provided through relationships with others who lack official status relative to the individual.

The different sources of social support also appear to serve different functions to individuals. Numerous investigations in the field of social psychology have shown that the main source of help and support when facing a problem is not formal organizations, but an individual's own informal networks (Hernandez-Plaza, Pozo, & Alonso, 2004). The advantages of informal social support are particularly relevant in populations with limited access to formal support.

Research on social support

Family ties, friendships, and involvement in social activities have been found to offer a psychological buffer against stress, anxiety, and depression (Weber, 1998). Cohen and Wills (1985) describe two mechanisms through which social support may work. *The main effect* occurs when there is a general increased level of well-being simply as a result of being part of a support network. *The buffering hypothesis* suggests that stress in a crisis is reduced due to the specific help that is perceived and/or provided. Social support has been examined extensively in the intimate partner violence victimization literature.

Research on the role of social support in women's IPV victimization. Social support is important to the study of intimate partner violence because research suggests that less support increases women's risk of violent victimization by intimates (Feld & Straus, 1990; Coker, 2003). Many victims of intimate partner violence indicate that they are not emotionally supported by familial and friendship ties and frequently reveal varying degrees of social isolation (Carlson, McNutt, Choi, & Rose, 2002; Larance & Porter, 2004; Dobash & Dobash, 1998). Social isolation can contribute to depression and undermine an individual's self-esteem and sense of purpose. Victims are usually secluded from supportive familial and friendship networks by their abusers (Dobash & Dobash, 1998; Coker, 2003; El-Bassel, Gilbert, Rajah, Foleno, & Frye, 2001).

Research has suggested that supportive involvement with others can significantly reduce the risk of depression and Post Traumatic Stress Disorder symptoms in abused women (Coker, 2003). In addition, having greater levels of social support has a positive influence on abused women's ability to make the decision to leave an abusive relationship (Larance, 2004).

The majority of the research that has examined the effects of social support on women's experience of IPV victimization has focused on clinical samples of abused women. For example, El-Bassel et al. (2001) examined social support among women (average age of 37) in methadone treatment who had experienced partner violence. Kocot and Goodman (2003) examined the role of social support as a moderator of the relationship between problem-focused coping and post-traumatic stress disorder and depression in low income

battered women. Farris and Feenaughty (2002) examined the associations between substance dependence, social isolation, and women's experience of domestic violence in a sample of street recruited drug-using women (mean age 37.5). Larance and Porter (2004) examined the process of forming social capital among female survivors of IPV. Carlson, McNutt, Choi, and Rose (2002) examined the role of social support and other protective factors in relation to depression, anxiety, and several different types of lifetime abuse in female patients (mean age of 31).

Overall, this body of research suggests that social support potentially provides a buffer for abused women, protecting them from developing negative mental health outcomes (e.g., anxiety, depression). However, these study findings are not generalizable due to their limited focus on clinical samples of abused women. Comparatively little is known about the relationship between social support and intimate partner violence victimization among women in non-clinical samples.

Research on the role of social support in women's IPV perpetration. Research within the past decade has begun to suggest that in addition to its buffering effect against victimization, social support may also have a role in preventing crime and deviance (Cullen, 1994; Cullen & Wright, 1997; Colvin, Cullen, & Vander Ven, 2002). Cullen (1994) proposes that supportive relations, beginning at birth, are essential to healthy human development. These supportive relations are in turn instrumental in the development of certain internal states such as empathy and self-control and create the context in which strong

social bonds can emerge. These internal states have been found to protect against delinquent behavior, where individuals who have greater empathy and greater levels of self control appear to engage in fewer delinquent acts (Cullen, Wright, & Chamlin, 1999). The act of giving social support can also have a negative influence on involvement in crime (Cullen, 1994). Sampson and Laub (1993) found that as offenders became providers of emotional and instrumental support, their involvement in crime ceased.

Research suggests that formation of interpersonal relationships is especially important to women (Block, 1983; Knox, Zusman, & Nieves, 1997). Female socialization encourages women toward interpersonal relationships as support receivers and support givers while males are socialized toward independence (Windle, 1992). It has been documented that social support can have a role in preventing women's victimization by an intimate partner (Carlson, McNutt, Choi, & Rose, 2002; Larance & Porter, 2004; Dobash & Dobash, 1998). Can social support also have a role in preventing women's use of aggression against their intimate partner?

Robbers (2004) examined whether quantity of social support (e.g., How frequently do you have contact with your family?) moderated the relationship between strain and delinquency (e.g., stole money, hit teacher, carried a weapon, used marijuana, hit another student) in men and women ages 18 to 22. The results indicated that when females experienced certain strains (e.g., failure to achieve goals) but had high levels of social support, the likelihood of delinquency decreased. This result suggests that the development of social

support networks could play an important role in female crime. To date, there has been no research on the role of social support in women's use of aggression against an intimate partner. Cullen (1994) suggests that a caring or supportive orientation towards others facilitates connectedness and makes victimizing others incompatible. Women's traditional responsibility for the delivery of social support and nurturance to others may create sentiments and problem-solving skills that are generally incompatible with engaging in violent and/or criminal behavior (Katz, 1988).

The Present Study

The present study explores the role of social support in women's IPV victimization and perpetration. The present study will extend the empirical literature on the relationship between social support and intimate partner violence among women in two main ways. First, this study will be conducted with an ethnically diverse, college-based sample of women with a range of use and receipt of intimate partner violence. This sample allows for greater generalizability than would be those from research with clinically referred females. Much of the current research on the role of social support in women's IPV victimization has relied on clinical samples of abused women (e.g., Carlson, McNutt, Chot & Rose, 2002; El-Bassel, Gilbert, Rajah, & Frye, 2001; Farris & Fenaughty, 2002; Kocot & Goodman, 2003).

Second, this study will examine the effects of social support on women's use of aggression against an intimate partner. Most prior studies of social support and intimate partner violence have assessed one group, women who

have experienced violence. No study has been found in the extant published literature that examines the role of social support in women's use of aggression against an intimate partner.

It is expected that social support will be negatively associated with women's use and receipt of intimate partner violence, even after controlling for correlates of intimate partner violence. Specifically, it is expected that women who report greater levels of social support will be less likely to be victimized by their intimate partner and less likely to use physical aggression against their intimate partner.

Chapter Four

Methods

The data for this study were drawn from students who were included in a NIH-funded five-year longitudinal study (1990-1995) of victimization and perpetration among undergraduate college students (White, Smith, & Humphrey, 2001). Both male and female students were assessed. It has been suggested that the use of student samples may have implications for the study of intimate partner violence by neglecting intimate partner violence in non-student intimate relationships (Archer, 2000). This is an important limitation that primarily affects studies aimed at investigating the prevalence and incidence of intimate partner violence. This limitation is of lesser concern to studies such as the present one that aim to test the relationships between theoretical concepts and intimate partner violence. Students are highly likely to be involved in intimate relationships and are also highly likely to be victims and perpetrators of intimate partner violence (Makepeace, 1986; Archer, 2000).

Procedure

Before the initial survey was administered, the researchers gained permission through the university administration to survey students the first day of student orientation. Student orientation leaders were trained to administer the survey and made participation in the study an integral part of the student orientation activities. The student orientation was not a requirement; therefore,

students who did not attend were contacted by phone. The purpose and methods of the survey were explained, and signed consent was obtained. Surveys were administered along with contact sheets for the purpose of follow-up. Surveys and corresponding contact sheets were assigned a study number to ensure confidentiality of the data. The researchers obtained a federal Certificate of Confidentiality.

Toward the end of each spring semester for four consecutive years students were contacted and asked to complete a follow-up survey during one of several sessions held at various locations around campus. Postcards were sent to remind students of the follow-up survey and to announce times and locations for sessions. These sessions were conducted by trained undergraduate psychology majors and graduate students. Students who did not attend one of the sessions were called and invited to attend. They were given the option of attending a session being held on campus, or of receiving the survey via mail. All students who participated in the follow-ups received $15 each time they participated. Students who had withdrawn from the university were also sampled.

The survey was administered to two cohorts of male and female students. For the first cohort, Wave 1 of the survey was administered in Fall 1990. Waves 2, 3, 4, and 5 were administered at the end of the Spring semester in 1991, 1992, 1993, and 1994 respectively. Likewise, for the second cohort, Wave 1 was administered in Fall 1991 with subsequent surveys administered at the end of Spring semesters in 1992, 1993, 1994, and 1995. Responses of the two cohorts

were aggregated at each wave of data collection; thus, Wave 1 consists of respondents in cohort 1 surveyed in Fall 1990 and respondents in cohort 2 surveyed in Fall 1991, and so forth. Surveys at each wave of data collection contained some identical items across all waves but also included items that differed from one wave to another. Because the items needed to measure the variables often differed from one year to the next as well as by gender of the respondent, the study was limited to heterosexual female respondents who participated in all five Waves of the survey administration.[2]

There were a total of 1,538 females in the original sample, of which 1,422 were heterosexual. Of these heterosexual women, 673 (47.3%) had completed all five waves of the survey. Of these 673 female students, 76.1% were white with a mean age of 23 years old at Wave 5 (SD = .76). There were no significant

[2] Social support was measured differently for males and females in the original sample. Males were assessed the *quantity* of social support from family and friends (e.g., number of hours spent with friends, number of times saw friends); females were assessed the *quality* of social support from family and friends (e.g., I can rely on my friends; I feel a strong bond with my friends). It is possible for an individual to know many people, spend time with those people, and not feel like he or she is valued by or can rely on those people. Therefore, for purposes of this research, only the female data were used. Furthermore, a complete measure of social support was available only in Wave 5. Because of this, the variables that were expected to have contemporaneous effects with social support were taken from the data collected at Wave 5. These variables include IPV victimization and IPV perpetration (as dependent variables) and alcohol and drug use as common correlates of the dependent variables. Other common correlates that are or could be time variant were taken as closely as possible to but preceding Wave 5. These correlates include history of IPV victimization (taken at Waves 1-4), history of IPV perpetration (taken at Waves 1-4), and beliefs about men and women (taken at Wave 2). Correlates that are not time-variant were taken from Wave 1. These measures include race/ethnicity and history of family violence.

differences on any of the study variables between participants who completed all five waves and those who did not.

Dependent Variables

IPV victimization. Drawing from the physical aggression items of the Conflict Tactics Scale (Straus, 1979), respondents were asked to indicate how many times during the past year their romantic partner had (1) thrown or smashed something (but not at the respondent); (2) threatened to hit or throw something; (3) thrown something at the respondent; (4) pushed, grabbed, or shoved the respondent; (5) hit (or tried to hit) the respondent but not with anything; and (6) hit (or tried to hit) the respondent with something hard. A romantic partner was defined as a person whom the student was dating. Responses were initially coded from 1 to 5 (1 = never, 2 = 1 time, 3 = 2-5 times, 4 = 6-10 times, 5 = more than 10 times).

The original metric for this variable used unnecessarily restricted ordinal response categories to measure the number of times violence was experienced. Ordinal variables can neither be added together to create a meaningful scale nor can they be analyzed with statistical techniques such as regression-based analyses. As a result, the six items were converted into interval-like responses by recoding ordinal values to reflect approximate "counts." "Never" was recoded as 0 rather than 1. "One time" was recoded as 1 rather than 2. "Two to five times" was coded as 3, the midpoint of the counts, rather than the ordinal value of 3. "Six to ten times" was recoded as 8, again as the midpoint of the counts, rather than the ordinal value of 4. Finally, "10 plus times" was arbitrarily given an

upper bound of 20; hence, “10 plus times” was recoded as 15, the midpoint of 10 to 20, rather than 5. Under this transformation of the data, the sum of the items is an approximate count of victimization experienced within the past year by a romantic partner. This transformation allows for the use of regression-based techniques.

An additive IPV Victimization scale was then constructed summing each of the respondent’s answers across the 6 items. A principal components factor analysis of these items indicated a single-factor solution (eigenvalue = 2.95). A Cronbach’s alpha of .751 was found for the six-item additive scale (see Appendix A). Scores on the IPV Victimization scale range from 0 to 39 with a mean of 1.43. Consistent with previous findings in the literature (Archer, 2000), 23.8% of the sample reported experiencing physical aggression from their romantic partner at least once within the past year. The additive scale is a discrete variable that is naturally left-censored at zero, artificially right-censored at 90, highly positively skewed, and has a standard deviation that is greater than the mean (M = 1.43, SD = 4.95).

IPV perpetration. Drawing from the physical aggression items of the Conflict Tactics Scale (Straus, 1979), respondents were also asked to indicate how many times during the past year they had (1) thrown or smashed something (but not at their partner); (2) threatened to hit or throw something; (3) thrown something at their partner; (4) pushed, grabbed, or shoved their partner; (5) hit (or tried to hit) their partner but not with anything; and (6) hit (or tried to hit) their

partner with something hard. Responses were originally coded from 1 to 5 (1 = never, 2 = 1 time, 3 = 2-5 times, 4 = 6-10 times, 5 = more than 10 times).

As with IPV victimization, the original metric used unnecessarily restricted ordinal response categories to measure the number of times violence was experienced. Therefore, the six items were converted into interval-like responses by recoding ordinal values to reflect approximate "counts" using the same transformation scheme as that described above for IPV victimization.

An additive IPV Perpetration scale was then constructed summing each respondent's answers across the 6 items. A principal components factor analysis of these items indicated a single-factor solution (eigenvalue = 3.22). A Cronbach's alpha of .797 was found for the six-item additive scale. Scores on the IPV Perpetration scale range from 0 to 60 with a mean of 1.54. Consistent with previous findings in the literature (Archer, 2000), 26.3% of the sample reported using physical aggression against their romantic partner at least once within the past year (see Appendix B). The additive scale is a discrete variable that is naturally left-censored at zero, artificially right-censored at 90, highly positively skewed, and has a standard deviation that is greater than the mean (M = 1.54, SD = 5.19).

Independent Variables

Family social support, measuring perceptions of emotional social support from family, is an additive scale comprised of eight items. Family Social support was measured by asking respondents to indicate the extent to which they agree or disagree (1 = strongly agree, 2 = agree, 3 = disagree, and 4 = strongly

disagree) with the following statements: (1) My family cares for me very much (reverse coded); (2) My family holds me in high esteem (reverse coded); (3) I am really admired by my family (reverse coded); (4) I am loved dearly by my family (reverse coded); (5) Members of my family rely on me (reverse coded); (6) I can't rely on my family for support; (7) My family really respects me (reverse coded); and (8) I don't feel close to members of my family. An additive Family Social Support scale was constructed summing each respondent's answers across the 8 items. High values on the additive scale are indicative of higher levels of perceived family social support. A principal components factor analysis of these items indicated a single-factor solution (eigenvalue = 4.684). A Cronbach's alpha of .89 was found for the eight-item additive scale (see Appendix C). Scores on the Family Social Support scale range from 8 to 32 with a mean of 27.80 and a standard deviation of 4.21.

Friend's social support, measuring perceptions of emotional social support from friends, is an additive scale comprised of seven items. Friends Social Support was measured by asking respondents to indicate the extent to which they agree or disagree (1 = strongly agree, 2 = agree, 3 = disagree, and 4 = strongly disagree) with the following statements: (1) My friends respect me (reverse coded); (2) I can rely on my friends (reverse coded); (3) My friends don't care about my welfare; (4) I feel a strong bond with my friends (reverse coded); (5) My friends look out for me (reverse coded); (6) My friends and I are really important to each other (reverse coded); and (7) My friends and I have done a lot for one another (reverse coded). An additive Friends Social Support scale was

constructed summing each respondent's answers across the seven items. High values on the additive scale are indicative of higher levels of perceived social support from friends. A principal components factor analysis of these items indicated a single-factor solution (eigenvalue = 4.42). A Cronbach's alpha of .90 was found for the seven-item additive scale (see Appendix D). Scores on the Friends Social Support scale range from 8 to 28 with a mean of 23.51 and a standard deviation of 3.87.

Control Variables: Common Correlates of IPV Victimization and Perpetration

Although the primary interest of this study is in the effects of friends and family social support, other variables are related to intimate partner violence, and ignoring these factors might produce relationships between the dependent and independent variables that are spurious. Informed by previous research, correlates of intimate partner violence that will be controlled for in this study are history of IPV victimization, history of IPV perpetration, family history of IPV, alcohol and drug use, stereotypic beliefs about gender roles, and race.

History of IPV victimization. This variable was a combined measure of victimization from Waves 1, 2, 3 and 4. In each individual wave respondents were asked to indicate how many times in the past year their romantic partner had (1) thrown or smashed something (but not at the respondent); (2) threatened to hit or throw something; (3) thrown something at the respondent; (4) pushed, grabbed, or shoved the respondent; (5) hit (or tried to hit) the respondent but not with anything; and (6) hit (or tried to hit) the respondent with something hard.

Responses were coded from 1 to 5 (1 = never, 2 = 1 time, 3 = 2-5 times, 4 = 6-10 times, 5 = more than 10 times).

As previously noted, the original metric used unnecessarily restricted ordinal response categories to measure the number of times violence was experienced. Once again the six items were converted into interval-like responses by recoding ordinal values to reflect approximate "counts."

An additive victimization scale was constructed for each individual wave summing each respondent's answers across the 6 items. These individual wave additive victimization scales were then combined to create a History of IPV Victimization scale for Waves 1 through 4. Scores on the History of IPV Victimization scale range from 0 to 227 with a mean of 10.37. About 66% of the sample reported experiencing at least one form of physical aggression from a romantic partner within the past four waves. The scale was highly skewed (skewness = 4.67, kurtosis = 29.54). To reduce skewness and approach normality, .5 was added to each score and the natural logarithm was taken of the scale scores. The .5 was added because the procedure would otherwise eliminate all cases in which the pretransformation count = 0. Research suggests that previous victimization by an intimate partner may lead to a higher probability of subsequent victimization (Dobash & Dobash, 1979).

History of IPV perpetration. This variable was a combined measure of perpetration from Waves 1, 2, 3 and 4. Respondents were asked to indicate how many times in the past year they had (1) thrown or smashed something (but not at their partner); (2) threatened to hit or throw something; (3) thrown something at

their partner; (4) pushed, grabbed, or shoved their partner; (5) hit (or tried to hit) their partner but not with anything; and (6) hit (or tried to hit) their partner with something hard. Responses were coded from 1 to 5 (1 = never, 2 = 1 time, 3 = 2-5 times, 4 = 6-10 times, 5 = more than 10 times).

Once again the original metric used unnecessarily restricted ordinal response categories to measure the number of times violence was experienced. As a result, the six items were converted into interval-like responses by recoding ordinal values to reflect approximate "counts."

An additive perpetration scale was constructed for each individual wave summing each respondent's answers across the six items. These individual wave additive perpetration scales were then combined to create a History of IPV Perpetration scale for Waves 1 through 4. Scores on the History of IPV Perpetration scale range from 0 to 252 with a mean of 11.01. About 68% of the sample reported using at least one form of physical aggression against a romantic partner within the past four waves. The scale was highly skewed (skewness = 4.44, kurtosis = 27.96). To reduce skewness and approach normality, .5 was added to each score and the natural logarithm was taken of the scale scores. The .5 was added because the procedure would otherwise eliminate all cases in which the pretransformation count = 0.

Family history of IPV. Respondents were asked to report about the period of time when they were growing up (ages 8 to 14): "For an average month, indicate how often one of your parents or stepparents delivered physical blows to the other" (Wave 1). Participants were asked to respond on a scale from 1 to 5

(1 = never, 2 = 1 to 5 times, 3 = 6 to 10 times, 4 = 11-20 times, and 5 = more than 20 times). Because of the relatively low frequency of respondents indicating that parents or stepparents had delivered blows to each other, scores on this variable were collapsed to create a dichotomous variable. Those that reported no violence were coded as 0 (91.4%) and those that reported violence were coded as 1 (8.6%). Coming from a violent home has been suggested to be a strong predictor of later IPV. Researchers have consistently found that men exposed to marital violence are substantially more likely to be violent toward their spouse than are men not exposed to parental violence (Carr & VanDeusen, 2002; Hotaling & Sugarman, 1986). Females exposed to parental aggression, however, have been found to be somewhat more likely to become victims (Doumas, Margolin, & John, 1994).

Alcohol Use was assessed by asking respondents how often they drank alcohol in the past year (Wave 5). Participants were asked to respond on a scale from 1 to 5 (1 = Never, 2 = less than once a month, 3 = one to three times a month, 4 = one to two times a week, 5 = more than two times a week). The data indicated that 14.9% of respondents had never drunk, 36.1% drank less than once a month, 28.8% drank one to three times a month, 15.9% drank one to two times a week, and 4.3% drank more than two times a week. Substance use, especially alcohol, is cited frequently as a major correlate of intimate partner violence (Hotaling & Sugarman, 1986).

Marijuana Use was assessed by asking respondents how often they had used marijuana within the past year (Wave 5). Participants were asked to

respond on a scale from 1 to 5 (1 = Never, 2 = less than once a month, 3 = one to three times a month, 4 = one to two times a week, 5 = more than two times a week). The data indicated that 78.8% of female respondents had never used marijuana in the past year, 14.4% used it less than once a month, 3.1% used it one to three times a month, 1.5% used it one to two times a week, and 1.9% used it more than two times a week. Less than 8% of the sample reported past year use of a drug other than marijuana; therefore, other drug use was not included in the analyses.

Beliefs about men and women in America. This attitudinal variable was measured at Wave 2 by asking respondents to indicate the extent to which they agree or disagree (1 = strongly agree to 5 = strongly disagree) with the following statements: (1) Women are generally more sensitive to the needs of others than men are; (2) Women should take the passive role in courtship; (3) Men are more competitive than women; (4) Men are more sure of what they can do than women are; (5) Women tend to subordinate their own needs to the needs of others; (6) Men are more independent than women; (7) Women are more helpful than men; (8) Compared to men, women tend to be gullible; and (9) Compared to men, women are more able to devote themselves completely to others. An additive Beliefs scale was constructed summing each respondent's answer across the nine items. A principal components factor analysis of these items indicated a single-factor solution (eigenvalue = 3.11). A Cronbach's alpha of .76 was found for the nine-item additive scale (see Appendix E). Scores on the Beliefs scale range from 10 to 45 with a mean of 28.3 and a standard deviation of 5.18.

Higher scores on the Beliefs scale indicate more contemporary views of men and women in America. It has been suggested that the more contemporary a college woman's attitudes on female sex-roles the less likely she is to tolerate dating violence (Bookwala, Frieze, Smith, & Ryan, 1992). Research also suggests that men's negative beliefs regarding gender have a direct effect on their use of violence in their intimate relationships (Reitzel-Jaffe & Wolfe, 2001).

Race/Ethnicity. This variable is included as a statistical control variable. Race/ethnicity is measured as a dummy variable with whites as the reference category (0 = White and 1 = NonWhite). Some studies have suggested that minorities are more likely to be involved as victims and perpetrators of intimate partner violence (Barnett, Miller-Perrin, & Perrin, 1997). Table 1 provides a brief description of all variables included in these analyses.

Table 1

Description of Variables

Variable	Mean/Percent	SD
1. IPV victimization (additive scale; Wave 5)	1.43	4.95
He threw something or smashed something (but not at me).	.37	1.52
He threatened to hit or throw something.	.31	1.56
He threw something at me.	.09	.50
He pushed, grabbed, or shoved me.	.45	1.79
He hit (or tried to hit) me but not with anything.	.20	.97
He hit (or tried to hit) me with something hard.	.02	.20
2. IPV perpetration (additive scale; Wave 5)	1.54	5.19
I threw something or smashed something (but not at him).	.25	1.03
I threatened to hit or throw something.	.27	1.27
I threw something at him.	.13	.93
I pushed, grabbed, or shoved him.	.45	1.63
I hit (or tried to hit) him but not with anything.	.41	1.67
I hit (or tried to hit) him with something hard.	.03	.26
3. Family Social Support (additive scale; Wave 5)	27.80	4.21
My family cares for me very much. (reverse coded)	3.79	.50
My family holds me in high esteem. (reverse coded)	3.49	.69
I am really admired by my family. (reverse coded)	3.32	.70
I am loved dearly by my family. (reverse coded)	3.67	.61
Members of my family rely on me. (reverse coded)	3.28	.72
I can't rely on my family for support.	3.49	.86
My family really respects me. (reverse coded)	3.40	.68
I don't feel close to members of my family.	3.38	.88
4. Friends Social Support (additive scale; Wave 5)	23.51	3.87
My friends respect me. (reverse coded)	3.54	.56
I can rely on my friends. (reverse coded)	3.31	.72
My friends don't care about my welfare.	3.57	.65
I feel a strong bond with my friends. (reverse coded)	3.33	.75
My friends look out for me. (reverse coded)	3.29	.68
My friends and I are really important to each other. (reverse coded)	3.39	.68
My friends and I have done a lot for one another. (reverse coded)	3.23	.82

Table 1 continued.

Variable	Mean/Percent	SD
5. History of IPV victimization (additive scale; Wave 1-4)	10.37	22.62
He threw something or smashed something (but not at me).		
He threatened to hit or throw something.		
He threw something at me.		
He pushed, grabbed, or shoved me.		
He hit (or tried to hit) me but not with anything.		
He hit (or tried to hit) me with something hard.		
6. History of IPV perpetration (additive scale; Wave 1-4)	11.01	23.57
I threw something or smashed something (but not at him).		
I threatened to hit or throw something.		
I threw something at him.		
I pushed, grabbed, or shoved him.		
I hit (or tried to hit) him but not with anything.		
I hit (or tried to hit) him with something hard.		
7. Family History of Intimate Partner Violence (Wave 1) (0 = no history, 1 = history)		
No history	91.4%	
History	8.6%	
8. Alcohol use (Likert scale; Wave 5)		
Never	14.9%	
< 1/ month	36.1%	
1-3/ month	28.9%	
1-2/ week	15.8%	
> 2/ week	4.3%	
9. Marijuana use (Likert scale; Wave 5)		
Never	79.0%	
< 1/ month	14.5%	
1-3/ month	3.1%	
1-2/ week	1.5%	
> 2/ week	1.9%	

Table 1 continued.

Variable	Mean/Percent	SD
10. Beliefs about Men and Women in American (additive scale of Likert items; Wave 2)	28.32	5.18
Women are generally more sensitive to the needs of others than men are.	2.05	.87
Women should take the passive role in courtship.	3.68	1.00
Men are more competitive than women.	3.05	1.17
Men are more sure of what they can do than women are.	3.83	1.03
Women tend to subordinate their own needs to the needs of others.	2.73	.85
Men are more independent than women.	3.75	1.00
Women are more helpful than men.	3.16	.88
Compared to men, women tend to be gullible.	3.26	1.04
Compared to men, women are able to devote themselves completely to others.	2.80	1.00
11. Race/ethnicity (dummy variable; Wave 1)		
Nonwhite (1= Nonwhite)	23.6%	
White (omitted category)	76.4%	

Note. N = 673

Analytic Strategy

The statistical method used to analyze data may affect the relationships observed. When the assumptions of the employed statistical model are met, the observed coefficients are usually reliable and efficient (Greene, 1993); however, when these assumptions are violated, the resulting estimates may not be meaningful. This can result in the misidentification of non-existent relationships (Type I errors) or the failure to discover true relationships (Type II errors).

Conventional regression models such as Ordinary Least Squares (OLS) regression are inappropriate to model the perpetration and victimization data in the present study for several reasons. First, the data are discrete approximate counts that are non-negative (i.e, truncated at zero). The use of OLS regression on these data could lead to inconsistent and biased parameter estimates (Long, 1997; Gardner, Mulvey, & Shaw, 1995). It is also likely that the linear regression model will produce negative predicted values that are meaningless.

Second, the distribution of the victimization and perpetration measures is highly positively skewed, with many observations in the data set having a value of 0. This high number of 0's prevents the transformation of a skewed distribution into a normal one, violating OLS assumptions of normality. A skewed distribution can lead to heteroscedasticity, which can severely affect standard errors in OLS. Because for count data the residuals almost always correlate positively with the predictors, the estimated standard errors of the regression coefficients are smaller than their true value, and thus the t-values associated with the regression coefficients are inflated (Gardner, Mulvey, & Shaw, 1995).

This artificial inflation of the t-values may result in an appearance of statistical significance when, in fact, there is no statistically significant effect. Thus, OLS regression seems prone to Type I errors for analysis of the victimization and perpetration data.

For data where the dependent variable is a discrete non-negative count, Poisson models are a natural choice (Long, 1997). The Poisson model has a number of advantages over an OLS model, including a skew, discrete distribution, and the restriction of predicted values to non-negative numbers (Long, 1997). However, the Poisson model also has restrictive assumptions. First, the Poisson model assumes that the errors follow a Poisson, not normal, distribution. Second, the Poisson model assumes that the variance of the dependent variable equals its mean. Usually in practice, however, the variance of errors is larger than the mean, a condition known as overdispersion (Greene, 1993). Overdispersion causes the estimates of the standard errors to be lower than their true value, which again leads to inflated t-coefficients and potential Type I errors. Third, the Poisson regression model assumes that each occurrence is independent of the number of previous occurrences, and the expected number of occurrences is identical for every member of the sample. Unless these assumptions are met, the Poisson model will produce incorrect estimates of its variance terms and misleading inferences about the regression.

The data in the present study reveal significant variation among female respondents in IPV victimization (M = 1.43, SD = 4.95) and perpetration (M = 1.54, SD = 5.19). In addition, it has been suggested that being victimized by an

intimate partner once may lead to a higher probability of a subsequent victimization (Dobash & Dobash, 1979). Both of these characteristics of the data violate assumptions of the Poisson regression model. As a result, it is important to consider an alternative regression model for analyzing these data.

The Negative Binomial regression model is a form of the Poisson regression that includes a random component reflecting the uncertainty about the true rates at which events occur for individual cases (Gardner et al., 1995). This model adds an overdispersion parameter to estimate the possible deviation of the variance from that expected under Poisson (Long, 1997). The variation of this parameter can account for a variance that is higher than the mean.

Regression Models

Negative Binomial regression will be used to model women's victimization and perpetration of IPV as a function of social support from friends and family. The models will be run separately for each of the dependent variables. Model 1 will include the two social support (family and friends) scales to assess the main effects of social support (family and friends) on IPV victimization and perpetration. Model 2 will add the common correlates of IPV (history of IPV victimization, history of IPV perpetration, family history of IPV, alcohol use, marijuana use, beliefs about men and women in America, and race/ethnicity) to determine the effects of social support (family and friends) when controlling for these variables. Model 2 will also include current IPV perpetration as a control in the IPV victimization models and current IPV victimization as a control in the IPV perpetration models.

Chapter Five

Results

Correlational Analyses

Table 2 displays the results of Pearson product-moment correlations among dependent and independent variables. Results are presented separately for IPV victimization and IPV perpetration. Within these separate sections, the relationship between the independent variables and the measures of IPV victimization and perpetration will be examined first; then the relationships between the control variables and dependent variables will be examined.

IPV victimization. A statistically significant relationship was found between family social support and IPV victimization ($r = -.141$ $p < .01$) indicating that increased perceptions of social support from family was negatively associated with IPV victimization. Those individuals who reported greater levels of perceived social support from family reported fewer IPV victimization experiences. There was also a statistically significant negative relationship between friends social support and IPV victimization ($r = -.123$, $p < .01$), where those with greater perceptions of social support from friends were less likely to report IPV victimization experiences.

Table 2

Intercorrelations between Study Variables

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) IPV victimization	.602**	-.141**	-.123**	.299**	.247**	.021	.077*	.075	.007	.049
(2) IPV perpetration		-.155**	-.196**	.285**	.334**	.062	.010	.028	.015	.130**
(3) Family social support			.546**	-.115**	-.074	-.092*	.038	.031	.027	.001
(4) Friends social support				-.152**	-.123**	-.077	.023	.084*	.073	-.094*
(5) History of IPV Victim.					.754**	.097*	.141**	.146**	-.059	.014
(6) History of IPV Perp.						.123**	.077	.113**	-.037	.088*
(7) Family History of IPV							.018	.047	-.006	.094*
(8) Alcohol use								.400**	.093*	-.260**
(9) Marijuana use									.076	-.087*
(10) Beliefs										-.068
(11) Race/Ethnicity										

Note: *p < .05, **p < .01.

There was a statistically significant relationship between history of IPV victimization and IPV victimization ($r = .299$, $p < .01$) such that females with a history of IPV victimization reported more current IPV victimization experiences. A statistically significant relationship was also found between history of IPV perpetration and IPV victimization ($r = .247$, $p < .01$), indicating that females with a history of using aggression against their intimate partners were more likely to report IPV victimization experiences within the past year.

No significant relationship was found between family history of IPV and IPV victimization. This finding is inconsistent with previous research that has suggested that females exposed to parental aggression are more likely to become victims (Doumas, Margolin, & John, 1994).

Frequency of alcohol use was significantly related to women's self reported IPV victimization experiences ($r = .077$, $p < .05$). Females who reported drinking a greater number of alcoholic drinks also reported a greater number of victimization experiences. This finding is consistent with past research on IPV victimization which indicates that substance use is a major correlate of IPV victimization (Hotaling & Sugarman, 1986). No significant relationship was found between marijuana use and IPV victimization.

No significant relationship was found between beliefs about men and women in America and IPV victimization. In addition, no significant relationship was found between race/ethnicity and IPV victimization. This finding is inconsistent with previous research that suggests that minorities are more likely

to be involved as victims of intimate partner violence (Barnett, Miller-Perrin, & Perrin, 1997).

IPV Perpetration. A statistically significant relationship was found between family social support and IPV perpetration ($r = -.155$ $p < .01$) indicating that increased perceptions of social support from family were negatively associated with IPV perpetration. Those individuals who reported greater levels of perceived social support from family reported fewer acts of IPV perpetration. There was also a statistically significant negative relationship between friends social support and IPV perpetration ($r = -.196$, $p < .01$), where those with greater perceptions of social support from friends reported fewer acts of IPV perpetration.

There was a statistically significant relationship between history of IPV victimization and IPV perpetration ($r = .285$, $p < .01$) such that females with a history of IPV victimization reported more use of aggression against their intimate partners. A statistically significant relationship was also found between history of IPV perpetration and IPV perpetration ($r = .334$, $p < .01$) indicating that females with a history of using aggression against their intimate partners were more likely to report using aggression against an intimate partner within the past year than women without such histories. .

No significant relationship was found between family history of IPV and IPV perpetration. This finding is inconsistent with previous research that has suggested that family history of IPV is a strong predictor of later IPV (Carr & VanDeusen, 2002). Inconsistent with previous research (Hotaling & Sugarman, 1986), no significant relationship was found between either alcohol use or

marijuana use and IPV perpetration. In addition, no significant relationship was found between beliefs about men and women in America and IPV victimization.

A significant relationship was found between race/ethnicity and IPV perpetration ($r = .130$, $p < .01$) indicating that nonwhite females reported greater levels of IPV perpetration than their white counterparts. This finding is consistent with previous research that suggests that minorities are more likely to be involved as perpetrators of intimate partner violence (Barnett, Miller-Perrin, & Perrin, 1997).

The correlations between family social support and friend's social support ($r = .546$) and history of IPV victimization and history of IPV perpetration ($r = .754$) were moderately large. As a result, diagnostics were run to determine if multicollinearity would be an issue in subsequent multivariate analyses. The variance inflation factors were well below the value of four, suggesting that multicollinearity was not a problem (Allison, 1999; Fox, 1991).

In order to clarify the most important predictors of IPV victimization and perpetration, Negative binomial regression analyses were conducted.

Negative Binomial Regression Analyses

IPV Victimization. Because of the significant correlations between IPV victimization and the two social support variables, it is necessary to conduct multivariate analyses to determine the stability of these findings. Table 3 presents the findings from the models assessing the ability of perceived social

Table 3

Negative Binomial Estimation for Model of IPV Victimization

	Model 1			Model 2		
	b	se(b)	e^b	b	se(b)	e^b
Family social support	-.060	(-1.72)	.942	-.067	(-2.07)*	.935
Friends social support	-.078	(-1.92)	.925	-.024	(-0.69)	.976
History of IPV Victimization				.480	(4.63)**	1.616
History of IPV Perpetration				-.141	(-.127)	.868
Family History of IPV				-.105	(-.27)	.900
Alcohol use				.098	(0.71)	1.103
Marijuana use				.184	(1.18)	1.202
Beliefs about men and women				.021	(0.89)	1.021
Race/Ethnicity				.192	(0.68)	1.212
Current IPV Perpetration				.207	(5.02)**	1.230
X^2	11.93**			123.48**		
Overdispersion	2696.38**			1441.04**		

Note: *p < .05, **p < .01.

support (family and friends) and IPV correlates to predict the probability of being victimized by an intimate partner within the past year. Model 1 in Table 3 presents the results of the negative binomial regression analysis of the effects of the social support scales (family and friends) on current IPV victimization.

There is significant evidence of overdispersion in model 1 (alpha = 2696.38, p < .00), therefore, the negative binomial regression model is appropriate and preferred to the Poisson regression model. The chi-square for Model 1 is significant (X^2 = 11.93, p <.00); however, the effect of perceived social support from family on IPV victimization failed to attain statistical significance.

Similarly, the effect of perceived social support from friends on IPV victimization also failed to attain statistical significance. These findings are

inconsistent with previous research on clinical samples that suggests that increased social support reduces the likelihood of IPV victimization (Kocot & Goodman, 2003; Farris & Feenaughty, 2002; Larance & Porter, 2004; Carlson, McNutt, Choi, & Rose, 2002). In the current study, perceived social support from family is not associated with a lower level of reported IPV victimization experiences when friends support is controlled, and perceived support from friends is not related to lower victimization when family social support is controlled; thus the first hypothesis is not supported in this data.

The introduction of additional control variables into a model is done typically to ascertain whether an estimated relationship between independent variables and the dependent variables is spurious. In the present data, however, no such relationship was found between either of the social support variables and IPV victimization when both variables are included simultaneously in the model. Nevertheless, it is still instructive to re-examine the relationships between social support and IPV victimization after controlling for the common correlates of victimization to determine whether they are exerting a suppressor effect on the social support-IPV victimization relationship (Agresti & Finley, 1997).

Model 2 in Table 3 presents the results of the negative binomial regression analysis when the common correlates of IPV are added. The data exhibit overdispersion for model 2 (alpha = 1441.04, p = .00) indicating that the negative binomial regression model remains appropriate. In addition, the model chi-square is significant (X^2 = 123.48, p < .00).

The key finding in Model 2 is that higher levels of perceived social support from family were significantly associated with less frequent IPV victimization (estimate = -.067, z = -2.07, p = .038) when variables commonly associated with IPV are controlled. The change in significance of the relationship between family social support and IPV victimization indicates that the relationship has been suppressed by one of the control variables. Suppression typically occurs when a control variable is positively associated with the independent variable and negatively associated with the dependent variable, or conversely, when the control variable is negatively associated with the independent variable and positively associated with the dependent variable. An examination of the correlations among all the variables in the model reveals that history of IPV victimization is significantly related to both family social support and IPV victimization, but in opposite directions. Therefore, when history of IPV victimization is allowed to vary, the relationship between family social support and IPV victimization appears to be absent, but when history of IPV victimization is controlled, a significant relationship between family social support and IPV victimization emerges. It is therefore reasonable to conclude that family social support does have at least a modest effect on IPV victimization when controlling for other variables.

Comparatively, the relationship between friend's social support and IPV victimization remained nonsignificant when the control variables were added to the model. Those respondents who perceived social support from friends were

neither more nor less likely to be a victim of IPV than their peers who did not perceive social support from friends.

As shown in Table 3, several of the common correlates of IPV produced consistent effects. History of IPV victimization had a statistically significant effect on current victimization by an intimate partner (estimate = .480, z = 4.63, p = .00). Female respondents that reported being victimized by an intimate partner within the past year were more likely to have a previous history of IPV victimization than their peers that did not report IPV victimization within the past year. This is supportive of prior research (Dobash & Dobash, 1979). IPV perpetration within the past year also had a statistically significant effect on IPV victimization within the past year (estimate = .207, z = .041, p = .00). This finding suggests that female respondents who perpetrated IPV were more likely to be victims of IPV within the past year than their peers who were not IPV victims within the past year.

As shown in Table 3, the remaining controls did not produce statistically significant effects. Inconsistent with previous findings, alcohol and marijuana use did not have statistically significant effects on reported past year IPV victimization when social support variables were controlled. Similarly, there was no statistically significant effect for family history of IPV, race, or beliefs about men and women on reported past year IPV victimization when social support variables were included in the model.

Overall, the most robust predictors of IPV victimization in the past year were low levels of perceived social support from family, having a history of IPV

victimization, and perpetration of IPV within the past year. My investigation now turns to the role that social support may play in perpetration of aggression by women against a male partner.

IPV Perpetration

Because of the significant correlations between IPV perpetration and the two social support variables, it is necessary to conduct multivariate analyses to determine the stability of these findings. Table 4 presents the findings from the negative binomial regression models assessing the ability of perceived social support (family and friends) and IPV correlates to predict the probability of using physical aggression against an intimate partner within the past year.

Model 1 in Table 4 presents the results of the negative binomial regression analysis of the effects of the social support scales (family and friends) on current IPV perpetration. As model 1 in Table 4 indicates, there is significant evidence of overdispersion (alpha = 2619.05, $p < .00$), therefore, the negative binomial regression model is appropriate and preferred to the Poisson regression model. In addition, the Chi-square is significant for the overall model ($X^2 = 27.88$, $p = .00$).

For model 1, the central finding is that perceived social support from friends is associated with less frequent use of IPV within the past year (estimate = -.166, $z = -3.96$, $p < .000$). Comparatively, perceptions of social support from family had no statistically significant effect on using physical aggression against an intimate partner. Therefore, perceived social support from family is not

Table 4

Negative Binomial Estimation for Model of IPV Perpetration

	Model 1			Model 2		
	b	se(b)	e^b	b	se(b)	e^b
Family social support	-.030	(-0.87)	.970	-.041	(-1.49)	.960
Friends social support	-.166	(-3.96)**	.847	-.128	(-4.35)**	.880
History of IPV victimization				-.221	(-2.35)*	.802
History of IPV perpetration				.572	(6.03)**	1.772
Family history of IPV				.224	(0.73)	1.251
Alcohol use				-.164	(-1.53)	.849
Marijuana use				.249	(2.00)*	1.283
Beliefs about men and women				.006	(0.77)	1.006
Race/Ethnicity				.586	(2.54)*	1.797
Current IPV Victimization				.193	(6.42)**	1.213
X^2	27.88**			212.00**		
Overdispersion	2619.05**			992.15**		

Note: *p < .05, **p < .01.

associated with the frequency of using physical aggression against an intimate partner when controlling for friend's social support.

Model 2 in Table 4 presents the results of the negative binomial regression analysis when the common correlates of IPV are added. The data exhibit overdispersion for model 2 (alpha = 992.15, p = .00) indicating that the negative binomial regression model is appropriate and preferred to the Poisson regression model. In addition, the model chi-square is significant (X^2 = 212.00, p < .00).

The key finding in Model 2 was that perceived social support from friends remains associated with less frequent use of physical aggression against an intimate partner among female respondents (estimate = -.128, z = -4.35, p <.00),

even when common correlates of IPV are controlled. Female respondents who perceived greater levels of social support from their friends used physical aggression against their intimate partner less frequently than their peers who did not perceive social support from their friends.

As shown in Table 4, several of the common correlates of IPV produced statistically significant effects. History of IPV victimization had a statistically significant negative effect on current IPV perpetration (estimate = -.221, z = -2.35, p = .019). Respondents who indicated they had a history of IPV victimization were less likely to report using physical aggression against an intimate partner within the past year. Comparatively, history of IPV perpetration had a statistically significant positive effect on reports of current IPV perpetration (estimate = .572, z = 6.03, .000) where those respondents who reported a previous history of using aggression against an intimate partner were more likely to report using physical aggression against an intimate partner within the past year.

Marijuana use within the past year had a statistically significant effect on IPV perpetration (estimate .249, z = 2.00, p = .045). This finding is supportive of prior research that suggests a relationship between substance use and IPV (Hotaling & Sugarman, 1986). Race had a statistically significant effect on IPV perpetration (estimate = .586, z = 2.54, p = .011), where nonwhite individuals were more likely to use physical aggression against their intimate partners than their white peers. Current victimization also had a statistically significant effect on IPV perpetration within the past year (estimate = .193, z = 6.42, p = .000).

Females who had been victims of IPV within the past year were more likely to indicate that they had used aggression against a romantic partner within the past year than their peers who had not been victims.

As shown in Table 4, the remaining controls did not produce statistically significant effects. Family history of IPV did not have statistically significant effect on reported past year IPV perpetration. Similarly, there was no statistically significant effect for alcohol use or beliefs about men and women on reported past year IPV perpetration.

Overall, the most robust predictors of IPV perpetration in the past year were low perceived social support from friends, having a history of IPV perpetration, having no long-term history of IPV victimization, marijuana use, being nonwhite, and having experienced IPV victimization within the past year.

Summary of Results

In summary, there were two main hypotheses in the current research. First, it was expected that women who report greater levels of social support will be less likely to be victimized by their intimate partner. This first hypothesis was partially supported, with higher levels of perceived social support from family being associated with less frequent IPV victimization.

Second, it was expected that women who report greater levels of social support will be less likely to use physical aggression against their intimate partners. This hypothesis was partially supported, with perceived social support from friends being associated with less frequent use of IPV within the past year.

Chapter Six

Discussion

The most important goal of this research was to determine whether social support played a role in college women's receipt and use of intimate partner violence. The present study utilized secondary data that collected information from female college students regarding their perceived levels of social support from family and friends and their use and receipt of intimate partner violence.

The data used in the present study were derived from a NIH-funded study of college students. The current study included items measuring the respondents' race/ethnicity, drug and alcohol use, family history of intimate partner violence, social support from family, social support from friends, history of IPV victimization, history of IPV perpetration, beliefs about men and women in America, IPV victimization within the past year, and IPV perpetration within the past year. The dependent variables in the study were: IPV victimization within the past year and IPV perpetration within the past year. The two main independent variables were perceived social support from family and perceived social support from friends. Negative binomial regression was used to assess the effects of the independent variables on IPV victimization and perpetration.

This study lends support for the argument that social support plays a protective role in college women's victimization by an intimate partner. Results indicated that perceptions of social support from family were related to lower

reports of IPV victimization even when controlling for other common correlates of IPV. The data here confirm other findings in clinical populations that social support is an important variable in determining the likelihood of whether or not a woman will be victimized by an intimate partner (Feld & Straus, 1990; Coker, 2003).

This study also lends support to the argument that social support plays a protective role in college women's involvement in IPV perpetration. Results indicated that social support from friends was related to decreased use of IPV. Specifically, those who reported greater levels of social support from their friends indicated participating in less IPV perpetration. It is interesting to contrast these findings with those of Schwartz and DeKeseredy (1997), who found that male peer support was linked to greater use of aggression by males against an intimate partner. The current study findings suggest that women's peers do not provide support for the use of female-to-male intimate partner violence. Caution should be used in drawing solid conclusions due to the fact that women were neither asked the gender of their friends nor were they asked about the attitudes their friends had towards using aggression against an intimate partner.

There are several considerations in the present study that require certain precautions in interpreting these data. First, it is important to note that the current sample may not be representative of all women in violent partnerships. The current sample utilized women that were attending college. In 1990 (the entrance year for the women in the sample), approximately sixty two percent of female high school graduates in the United States enrolled in college (National

Center for Education Statistics, 1998). Therefore, the current sample may represent a large proportion of female high school graduates in the U.S., but it does not include females that did not complete high school or females that did not have the option to attend college. Research suggests that young women who drop out of high school have lower relative earnings, experience more unemployment during their work careers, are more likely to become pregnant at young ages, and are more likely to become single parents than those students who complete high school and/or college (Snyder & Sickmund, 1995). Dropping out of high school has also been linked to intimate partner violence (Moffitt & Caspi, 1999). Therefore, it is likely that individuals that do not complete high school differ from those that complete high school in the levels of IPV experienced.

In addition, the college women in the current sample reported high levels of perceived emotional social support from friends and family. It is possible that women who complete high school and attend college have more support from family and friends than those that do not complete high school. Research has suggested that parents play a crucial role in keeping young people in school (Horn, 1992).

It is also important to note that despite high levels of aggression reported by the current sample, the aggression could be characterized as “minor” physical violence. The IPV Victimization and Perpetration scales in the current study did not assess “severe” forms of physical violence (e.g., choking, stabbing, shooting). Second, it is difficult to assess the time ordering and direction of the

association between intimate partner violence and social support from family and friends. Specifically, it is difficult to assess whether social support has a direct effect on intimate partner violence or whether intimate partner violence has a direct effect on social support. In the current study, a complete measure of social support was only available in Wave 5. IPV victimization and IPV perpetration were expected to have contemporaneous effects with social support; therefore, these variables were also taken from the data collected at Wave 5. The cross-sectional approach utilized in the current study is limited in its ability to address time ordering and causality.

Intimate partner violence is different from other forms of victimization because exposure is typically chronic rather than acute. As a result, the violence may exhaust emotional and tangible support resources due to provider burnout or providers' inability to continue to offer material resources (Thompson, Kaslow, Kingree, Rashid, Puett, Jacobs, & Matthews, 2000). Therefore, experiencing violence may have an effect on social support which in turn may have an effect on further experiencing intimate partner violence. Longitudinal analyses are needed to clearly delineate the time ordering and causal effects.

Third, the IPV victimization and perpetration measures did not assess the context of IPV behavior. It was not clear, given the question format, whether perpetration and victimization were occurring at the same point in time. For example, when a female indicated that she had been the victim of IPV in the past year and that she had been a perpetrator of IPV in the past year, it was not clear if the perpetration occurred in reaction to a victimization or vice versa. Nor was it

clear whether victimization and perpetration occurred within the same relationship. The current data only provide evidence that a female respondent had been a victim at some point within the past year and/or had been a perpetrator at some point within the past year. In order to place perpetration and victimization in the appropriate context, future research in this area should assess the motivations for such behavior.

Fourth, and relatedly, the current data examine past year victimization and perpetration by a "romantic partner." The data for the present study do not examine the behaviors within one specific relationship. For example, if a female respondent reported that she was a victim of IPV five times in the past year, it is not clear how many romantic partners were responsible for perpetrating those five acts of violence. Future research in this area could limit the IPV victimization and perpetration to one relationship.

Fifth, the present study focused on IPV victimization and perpetration in heterosexual females. Research suggests that the contexts and dynamics in same-sex and heterosexual relationships are different enough to warrant separate discussions (see Renzetti, 1992; Burke & Follingstad, 1999; Elliot, 1996; Lie & Gentlewarrier, 1991). Social support for lesbians may be different than for heterosexual women because of possible rejection by members of their family of origin, and discrimination from their community. Understanding the support networks of lesbians is important because many have been rejected by their families of origin and may have developed alternative support systems. It is

suggested that future research examine the role social support may play in homosexual intimate partner violence victimization and perpetration.

Sixth, social support was operationalized in the present study as the perceived emotional support provided by friends and family. There are many dimensions to social support. Research suggests that emotional support is the primary component of social support; however, other forms of social support (e.g., instrumental and informational) may also serve a protective role. Future research could also include measures of instrumental support, informational support, and appraisal support. In addition, future research could compare the effects of perceived social support with the effects of received social support on IPV victimization and perpetration to determine if there are any significant differences between actually receiving support and perceiving support. The present study investigated the role of informal social support. Future research could also investigate the role of social support provided by formal agencies (schools, government, etc.). Research has suggested that these sources may be more important to isolated populations (Weber, 1998).

Implications

Intimate partner violence is a serious public health problem in the United States and was a significant issue in the lives of the women in the current sample. Approximately twenty four percent of the current sample reported being victimized by an intimate partner and approximately twenty six percent reported using a form of aggression against an intimate partner within the past year.

The results from this study suggest that the effects of perceived social support from friends and family are general in that they are related to both reduced IPV victimization and reduced IPV perpetration. Research suggests that a major benefit of social support is its role in the maintenance of a positive self-esteem and self-concept (Weber, 1998). It appears that feeling valued by friends and family reduces the likelihood that a college woman would be involved in a violent relationship either as a victim or as an offender.

Young women attending college may have unique social support needs. Typically, college is the first time a young woman is away from home. The findings from the present study suggest that IPV could be reduced by creating a more supportive environment and by giving support to young college women. College campuses could offer orientation sessions for parents, caregivers, and/or family members of new college students that provide information about resources on campus, including victim advocacy programs and counseling centers. In addition, the victim advocacy center on campus could provide information regarding definitions of intimate partner violence, risk factors for intimate partner violence victimization and perpetration, and information on what to do and who to

contact if an assault occurs. The results from the present study suggest that maintaining the connection between the parent/caregiver and the female college student can perform an invaluable service to the female college student and potentially protect her from the effects of intimate partner violence.

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Appendices

Appendix A: Results of Factor Analysis for measures of IPV victimization

Appendix A (continued)

Results of Factor Analysis for measures of IPV victimization

IPV Victimization Scale Items	Factor Loadings Factor 1	Item-to-Scale Correlation
1. He threw or smashed something (but not at me).	.69	.74
2. He threatened to hit or throw something.	.74	.84
3. He threw something at me.	.70	.72
4. He pushed, grabbed, or shoved me.	.85	.82
5. He hit (or tried to hit) me but not with anything.	.75	.75
6. He hit (or tried to hit) me with something hard.	.40	.58

Eigenvalues: 2.95 Cronbach's Alpha: .75

Appendix B: Results of Factor Analysis for measures of IPV perpetration

Appendix B (continued)

Results of Factor Analysis for measures of IPV perpetration

IPV Perpetration Scale Items	Factor Loadings Factor 1	Item-to-Scale Correlation
1. I threw or smashed something (but not at him).	.77	.68
2. I threatened to hit or throw something.	.52	.78
3. I threw something at him.	.81	.82
4. I pushed, grabbed, or shoved him.	.88	.82
5. I hit (or tried to hit) him but not with anything.	.81	.85
6. I hit (or tried to hit) him with something hard.	.52	.68

Eigenvalues: 3.22 Cronbach's Alpha: .80

Appendix C: Results of Factor Analysis for measures of family social support

Appendix C (continued)

Results of Factor Analysis for measures of family social support

Family Social Support Scale Items	Factor Loadings Factor 1	Item-to-Scale Correlation
1. My family cares for me very much.	.78	.76
2. My family holds me in high esteem.	.82	.79
3. I am really admired by my family.	.84	.82
4. I am loved dearly by my family.	.82	.80
5. Members of my family rely on me.	.59	.62
6. I can't rely on my family for support.	.64	.68
7. My family really respects me.	.86	.84
8. I don't feel close to members of my family.	.73	.76

Eigenvalues: 4.68 Cronbach's Alpha: .89

Appendix D: Results of Factor Analysis for measures of friend social support

Appendix D (continued)

Results of Factor Analysis for measures of friend social support

Friend Social Support Scale Items	Factor Loadings Factor 1	Item-to-Scale Correlation
1. My friends respect me.	.65	.64
2. I can rely on my friends.	.86	.85
3. My friends don't care about my welfare.	.71	.71
4. I feel a strong bond with my friends.	.89	.88
5. My friends look out for me.	.87	.86
6. My friends and I are really important to each other.	.91	.89
7. My friends and I have done a lot for one another.	.63	.67

Eigenvalues: 4.77 Cronbach's Alpha: .90

Appendix E: Results of Factor Analysis for measures of beliefs about men and women in America

Appendix E (continued)

Results of Factor Analysis for measures of beliefs about men and women in America

Beliefs about Men and Women Scale Items	Factor Loadings Factor 1	Item-to-Scale Correlation
1. Women are generally more sensitive to the needs of others than men are.	.53	.52
2. Women should take the passive role in courtship.	.47	.51
3. Men are more competitive than women.	.61	.63
4. Men are more sure of what they can do than women are.	.60	.61
5. Women tend to subordinate their own needs to the needs of others.	.41	.44
6. Men are more independent than women.	.67	.66
7. Women are more helpful than men.	.63	.60
8. Compared to men, women tend to be gullible.	.67	.65
9. Compared to men, women are more able to devote themselves completely to others.	.65	.64

Eigenvalues: 3.11 Cronbach's Alpha: .76

About the Author

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