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RUNNING HEAD: Intimate Partner Violence and Rural Women

Intimate Partner Violence and Rural Women

Doctoral Dissertation of
Amanda S. Adams, M.A.

In Partial Fulfillment of the Requirements for
The Degree of

Doctor of Psychology (Psy.D.)

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Huntington, West Virginia
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Abstract

Over the past twenty years, awareness of the significant issue of intimate partner violence (IPV) has steadily increased. The deleterious consequences of IPV on physical and psychological health are well documented. However, much of our understanding of IPV is based on urban models, while little is known about the phenomena of IPV among rural women. In an attempt to address this deficiency within the literature, the present study explored the impact of IPV on rural women. Fifty-six women, between the ages of 18 to 69 comprised three distinct groups: the rural IPV victims recruited from the community (R-IPV group, n=13), IPV victims in treatment a (T-IPV group, n=13) and a rural control group (RC group, n=30). All participants were orally administered a battery of self-report measures assessing demographic information, social support, smoking, traumatic event exposure, IPV and PTSD. Analyses revealed that the T-IPV group differed significantly from the R-IPV group, since they reported a more perceived social support and scored higher on a measure of IPV. Further, comparisons of all three groups yielded significant differences. Compared to the RC group, both victim groups were more likely to report current smoking, and scored higher on a measure of smoking dependence and addiction. Although the RC group reported more received social support, the T-IPV group reported more perceived social support than both the RC and R-IPV group. Both victim groups were more likely to meet criteria for PTSD compared to the RC group. Participants meeting criteria for PTSD (PTSD-positive) were compared to participants who did not meet criteria for PTSD (PTSD-negative) and significant differences were detected. PTSD-positive participants were more likely to be unemployed and reported lower income levels. Further, PTSD-positive participants endorsed higher levels of psychological aggression and were more likely to describe sensorimotor manipulation as a reason for smoking. Overall, these findings suggest the need for more comprehensive IPV services, designed for both victims and the rural communities in which they reside.

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Intimate Partner Violence and Rural Women

Introduction

Over the past two decades, an increasing amount of public attention has been paid to the issue of intimate partner violence (IPV; e.g., Acierno, Resnick, & Kilpatrick, 1997; Tjaden & Thoennes, 2000). The emerging body of research has furthered our understanding of the prevalence (e.g., Greenfeld et al., 1998) psychological (e.g., Humphreys, Lee, Neylan, & Marmar, 2001) and physical impact (e.g., Wagner, Morgan, Hamrick, & Hendrick, 1995) of IPV. Although IPV has received increasing attention over the past 20 years, there are myriad issues which remain understudied.

The purpose of this overview of literature is to explore current understanding of IPV through: (a) reviewing relevant theoretical conceptualizations of IPV, (b) providing epidemiological data regarding the prevalence and effects of IPV, (c) identifying areas in need of additional research, and (d) presenting a research study that addresses deficiencies in the literature.

Definition

Within the popular literature, IPV is also referred to as domestic violence, dating violence and spousal abuse. Researchers disagree on a uniform definition of IPV. While some studies define IPV as behaviors exhibited in an effort to physically injure another person, other research includes behaviors designed to control or instill fear, such as verbal abuse and denial of fundamental resources, for example, money or shelter (National Center for Injury Control and Prevention, 2003). For the purpose of this review, IPV is defined as physical violence aimed at a current or former spouse, dating partner or boyfriend/girlfriend (Satzman, Fanslow, McMahon & Shelley, 1999).

Both same-sex and opposite-sex intimate partners are included in this definition. However, research on same-sex partner violence and mental health correlates is minimal. Researchers hypothesize that the discrimination experienced by individuals with a homosexual

orientation along with the differing gender role expectations of same sex couples could confound the research findings (Lockhart, White, Causby & Isaac, 1994). For these reasons, IPV research on same-sex partners will not be reviewed.

Theories

The theoretical conceptualizations of IPV have been debated on the basis of two major assumptions (Archer, 2000; Johnson, 1995): the family violence perspective (e. g., Straus, 1971) and the feminist perspective (e.g., Walker, 1989). Believing that an etiological theory based primarily on individual factors of the perpetrator and victim, such as psychopathology, is grossly inadequate, family violence researchers use a larger framework including the family and social structures. Within this model, psychological variables are not minimized, but rather placed in a broader conceptualization (Buzawa & Buzawa, 2000; Gelles, 1993).

Family conflicts are attributed to inescapable, rigid role assignments and linked to familial characteristics such as isolation, socioeconomic status, and a history of experiencing/witnessing violence (Buzawa & Buzawa, 2000; Johnson, 1995; Goode, 1971). Conclusions drawn from the family violence approach suggest culture, unemployment, and isolation engender IPV (Gelles & Straus, 1988; Smith, 1990).

Because family violence researchers are interested in comparing variables such as gender roles and poverty, individuals and couples who have not experienced violence are included in these studies (Archer, 2000; Johnson, 1995). Family violence researchers use couples from community-based samples to investigate variables that are common to both men and women (e.g., sociodemographic factors; Archer, 2000; Johnson, 1995).

In contrast, much of the data supporting the feminist perspective is based on samples selected for high levels of violence, such as domestic violence treatment programs and shelters (Archer, 2000; Johnson, 1995). Among the social conventions that oppress women, feminist theorists consider IPV to be the most overt form of patriarchal dominance. The social status of women has been subordinate since ancient times (Buzawa & Buzawa, 2000; Straus & Gelles,

1986). IPV serves to maintain this inferior position of women (Dobash & Dobash, 1979). Until the end of the nineteenth century, wife beating was lawful behavior, considered to be a husband's right in the United States. Wife beating was deemed illegal in Alabama and Massachusetts in 1871. The ruling declared that "the *privilege* to, ancient though it be, to beat her with a stick, to pull her hair, choke her, spit in her face or kick her about to the floor, or inflict upon her other like indignities, is not acknowledged by our law" (Dobash & Dobash, 1979). Today, IPV is considered a crime throughout the United States. However, despite the development of social policy and public denouncement, IPV is a widespread and common phenomenon (Tjaden & Thoennes, 1998).

Prevalence of Intimate Partner Violence

Female Victims

IPV is recognized as one of the most serious and pervasive public health issues facing women in the United States today (Harwell et al., 1998). One out of every five women in the United States has been physically assaulted by an intimate partner (Tjaden & Thoennes, 2000). Conservative estimates indicate that two million women are assaulted by their intimate partners each year, and some IPV experts believe the true prevalence of IPV to be twice that figure (e.g., National Center for Injury Prevention and Control, 2003; Gelles, 1997). IPV potentially can be fatal. Studies show that U.S. women are more likely to be assaulted, raped or killed by a male intimate partner (current or former) than by all other types of assailants (Greenfeld et al., 1998). Intimate partner homicides comprise approximately 33% of the murders of women. Recent estimates indicate that 1300 women are murdered each year by an intimate partner (Renninson & Welchans, 2000).

Male Victims

Although feminist organizations purport that IPV involves a male perpetrator and female victim (Archer, 2000), this is not always the case (Mills, 1990; Walker, 1989; White & Kowalski, 1994). Research supports the notion that women are just as likely as men to abuse intimate

partners (Browne, 1993; White & Kowalski, 1994). Coining the term “The Battered Husband Syndrome,” Steinmetz (1978) was one of the first to discuss female-to-male spousal abuse.

Differences between female and male-perpetrated violence, relative to function and consequences have been reported. It has been proposed that males inflict violence on women out of a need for control (Buzawa & Buzawa, 2000; Johnson, 1995; Umberson & Anderson, 1998). In self-reports of motivation for spousal homicide, men identify sexual jealousy and threats of relationship dissolution as common antecedents. Conversely, women ascribe their violent behavior to self-defense (White & Kowalski, 1994). Further, the consequences of male to female and female to male violence differ. Women are more likely than men to sustain serious, life-threatening injuries as well as negative psychological outcomes secondary to IPV (Browne, 1993; Walker, 1989). Notably, much is unknown about male victims of IPV, because they are less likely than women to report the assault (Mills, 1990).

Consequences of Intimate Partner Violence

The current annual costs of IPV are estimated to be 5.8 billion dollars, 4 billion of which are spent on direct medical and mental health service utilization (National Center for Injury Control and Prevention, 2003). Victims of domestic violence utilize health care services at a higher rate, including visits to emergency rooms (EDs) and primary care facilities, compared to non-victimized women (Coker, Hall-Smith, McKeown & King, 2000). Of the number of women who present to EDs for medical treatment, an estimated 20-35% are battered (Abbot, Johnson, Koziol-McClain & Lowenstein, 1995; Fritchcraft, Hadley, Hendricks-Matthes, McLeer & Warshaw, 1992).

General physical consequences. Studies conducted within EDs, determined that more women come to the ED due to injuries inflicted by an intimate, compared to all rapes, motor vehicle accidents, and muggings *combined* (Griso, et al., 1991; McLeer, Anwar, Herman & Maquiling, 1989; Randall, 1990). The most common violent acts perpetrated against women by intimate partners consist of pushing, shoving, grabbing, slapping, and hitting (Tjaden &

Thoennes, 2000). While minor injuries, such as scratches and welts are most common, IPV victims also may suffer more severe consequences, such as hearing and vision loss, knife wounds, and scars. Damage resulting from old injuries such as broken bones and torn ligaments at various stages of healing is also evidenced in this population (Tjaden & Thoennes, 2000; Browne, 1993). In addition to these injuries, victims of IPV often present with chronic pain, headaches, sexual dysfunction, arthritis, and gastrointestinal disorders (Abbot et al., 1995; Drossman, Talley, Leaserman, Olden & Barreiro, 1995; McCauley et al., 1995).

Physical consequences to pregnant victims. Of particular concern have been the risks posed to pregnant victims of IPV. Reviewing over 300 articles, Gazmararian et al. (1996) explored the prevalence of domestic violence during pregnancy. They concluded the prevalence of IPV during pregnancy ranged from 0.9 to 20.1 %. However, the majority of studies reviewed indicated that between 4 and 8 percent of women were assaulted during pregnancy. Abused women are twice as likely as non-abused women to wait until the third trimester of pregnancy to access prenatal care, increasing the risk of complications (McFarlane, Parker, Soeken & Bullock, 1992). Consequences for pregnant women with violent partners are very serious (Campbell, Poland, Waller & Ager, 1992; McFarlane et al., 1992; Mezey & Bewley, 1997). Pregnant victims of IPV are more likely to experience complications with pregnancy and birth including miscarriage, premature birth, low birth weight, chorioamnionitis, fetal injury, and fetal death (Mezey & Bewley, 1997). Further, pregnant IPV victims are more likely to experience emotional problems compared with women who are not abused (Campbell et al., 1992).

General psychological consequences. IPV victims, in general, are likely to experience a wide range of psychological sequelae, including depression, anxiety, eating and sleeping disorders, suicidal ideation, and substance abuse (Cascardi, O'Leary, & Schlee, 1999; Coker et al., 2002; Golding, 1999; McCauley et al., 1995). Of all of the detrimental effects of IPV, depression typically has been considered the most prevalent (Cascardi & O'Leary, 1992; Follingstad, Brennan, Hause, Polek & Rutledge, 1991; Hilberman & Munson, 1977; Ovara,

McLeod & Sharpe, 1996) with the mean weighted prevalence of depression among IPV victims being 47.6 % (Golding, 1999).

Posttraumatic Stress Disorder (PTSD). A specific psychological disorder among IPV victims that has received increasing attention in the past decade is Posttraumatic Stress Disorder (PTSD). Defined as an anxiety disorder that results from exposure to a traumatic stressor involving actual or likely injury or death of self or others, in which the victim's response involves horror, helplessness, or intense fear (Criterion A), the symptoms of PTSD are classified into three additional clusters. Criterion B consists of symptoms of intrusion and re-experiencing (e.g. flashbacks, nightmares); Criterion C, termed avoidance/numbing, consists of symptoms of avoidance of stimuli that remind the individual of the stressor; and Criterion D, titled Arousal, consists of hypervigilance. For a diagnosis of PTSD, symptoms must last for more than one month and cause significant impairment in functioning (DSM-IV-TR, 2000).

PTSD and Assault. Exposure to events perceived to be life threatening increases the risk of PTSD. Because violent attacks are often life-threatening and/or injurious events, PTSD is often diagnosed in individuals who have been assaulted (Volpicelli, Balaraman, Hahn, Wallace & Bux, 1999). Resnick, Kilpatrick, Dansky, Saunders and Best (1993) used a representative sample of 4,009 women to explore PTSD among crime victims and discovered that women who were crime victims were more likely to experience PTSD than non-crime victims and identified IPV as the criminal event most likely to lead to PTSD. The National Comorbidity Study (Kessler, Sonnega, Bromet, Hughes & Nelson 1995) demonstrated similar findings. In a sample of 5877 individuals, women experiencing physical assault were found to have a high probability of developing PTSD (21.3%).

Intimate Partner Violence and PTSD Astin, Ogland-Hand, Coleman and Foy (1995) compared maritally distressed women and battered women in an effort to detect the prevalence of PTSD among the two groups. Contacted through community clinics, shelters and self-help groups, a total of 87 women (50 battered and 37 nonbattered) comprised the sample. All

participants experienced difficulties in their marital relationships. Their hypothesis that battered women were more likely to experience PTSD was supported; among the battered group, 58% met diagnostic criteria for PTSD, but only 18.9% of the nonbattered group met criteria for PTSD. More PTSD-positive participants (battered and non-battered) reported a history of childhood sexual abuse than those who did not meet criteria for PTSD. These findings support the contention that additional trauma resulting from experiences other than the physical assault affect post-trauma adjustment.

Results from a similar study conducted by Cascardi, O'Leary, Lawrence and Schlee (1995) support these findings. The researchers compared three groups: help-seeking maritally discordant women, abused women, and a control group from the community. Hypothesizing that PTSD is a function of spousal fear, Cascardi et al. (1995) found that abused women were generally more fearful of their spouses than the other two groups, and their specific fears included bodily harm. Spouse-specific fear was correlated with a higher prevalence of PTSD in the abused women. Among IPV victims, the prevalence of spouse specific-fear and PTSD was higher, compared to either the maritally discordant women or the community control group.

Kemp, Rawling and Green (1991) conducted a study that included 77 battered women recruited from a battered women's shelter. They found that over 84% of the sample met the diagnostic criteria for PTSD; however, there were major limitations to this study. Data were collected between the victims' third and fifth day at the shelter; therefore, PTSD symptomatology may be a reflection of the crisis reaction to a recent incident of abuse and the distress involved in leaving the abuser. The authors also failed to report the time frame since the last incident of abuse. Therefore, the one month criterion may have not been met. Further, this study assessed for a current diagnosis of PTSD, while failing to control for lifetime prevalence.

A similar shelter-based study, conducted by Humphreys et al. (2001) yielded somewhat different results. Based on a sample of 50 battered women, findings indicated that 38.8% met

diagnostic criteria for PTSD. However, 77.6% had qualified for a lifetime diagnosis of PTSD. Both of the above studies (i.e., Humphreys et al., 2001; Kemp et al., 1991) used shelter-based samples, introducing study limitations. A limited number of domestic violence victims seek help from shelters and shelter-based samples differ from community-based samples (Vogel & Marshall, 2001). Previous research indicates that IPV victims who seek help are more likely to have experienced more severe violence (Lewis, 2002; Saunders, 1994; Wilson, Vercella, Brems, Benning & Renfro, 1992).

To investigate help-seeking behavior, Lewis (2002) compared help-seeking IPV victims to non-help seeking IPV victims, and included a comparison group. This sample, which consisted of predominantly white, Appalachian participants, was recruited from a domestic violence facility that provides shelter, and assistance to victims, an agency that provides protective services to children and the general community. Results indicated that significantly more help-seeking IPV victims were likely to meet the criteria for PTSD than non-help-seeking IPV victims. In addition, more non-help-seeking women met criteria for PTSD than the control group. The overall prevalence of PTSD in the IPV groups was 40%.

Also examining service utilization and PTSD, Abel (2001) compared female IPV victims with female batterers. The 67 female batterers were enrolled in a batterer intervention program and the 51 women identified as victims were also receiving services. The entire sample was recruited through service agencies identified by the Florida's Commission on Domestic and Sexual Violence. Although both groups evidenced elevated trauma symptomatology, the women receiving victim services scored significantly higher than the perpetrators on the trauma symptomatology measure. However, the majority of the domestic violence victims were being housed at shelters. This may exaggerate the difference between the groups, because shelter samples are more likely to exhibit PTSD symptoms (Jones et al., 2001). In a similar study, Houskamp and Foy (1991) reported that 45% of a sample of battered women from a community domestic violence service agency exhibited PTSD due to IPV. Lastly, Saunders (1994) found a

prevalence rate of 62% for PTSD among IPV victims recruited from shelters and outpatient programs.

Woods (2000) assessed PTSD among abused, post-abused and non-abused women. The sample in this study was comprised of 160 women (53 abused, 55 post abused and 52 nonabused). Women currently involved in an abusive relationship comprised the abused group. Post-abused women were defined as subjects who were formerly in an abusive relationship ending at least two years prior. The sample was recruited from clinical and community settings, shelters, and newspaper advertisements. When PTSD was assessed by the Impact of Events Scale (IES; Horowitz, Wilner & Alvarez, 1979), 66% of post-abused women, 92% of abused women, and 6% of the nonabused women had scores suggestive of PTSD symptomatology. Seventy-four percent of the abused women, 44% of the post-abused women and 11% of the nonabused women reported PTSD symptomatology, as measured by the Crime Related PTSD Scale (CR-PTSD; Saunders, Arata, & Kilpatrick, 1990). One limitation of this study is that the CR-PTSD scale is not a diagnostic instrument with adequate norms and psychometric properties.

Using an ethnically diverse, community based sample of 836 poor women (303 African American, 273 Euro-American, 260 Mexican American), Vogel and Marshall (2001) examined the relationship between poverty, IPV and PTSD. The sample was recruited through flyers, mailings, personal contact etc. Half of the participants exceeded the cutoff on the PTSD measure (CR-PTSD). High and low PTSD symptomatology was used as an independent variable to examine its relationship to demographic variables. Women who reported high PTSD symptomatology were less educated and poorer than those low in symptoms. No differences were found between age, length of relationship and marital status.

To examine the impact of IPV, 579 of the participants who reported IPV were included; these participants were categorized into four distinct groups: moderate violence and no partner rape (43%), moderate violence and partner rape (12%), severe violence and no rape (25%),

and severe violence and rape (20%). Forty-seven percent of the women who sustained moderate violence were high in PTSD-symptomatology. This proportion increased when the participants reported rape (63%). Sixty-five percent of the women who experienced severe violence and 71% of the women who reported severe violence and rape reported high PTSD symptomatology. When the four groups were compared, scores did not differ significantly by ethnicity. Vogel and Marshall (2001) suggest that socioeconomic status (SES) is a stronger contributor to stress vulnerability than ethnicity. The conclusions from this research are limited by the measures utilized. The PTSD measure in this study is not a diagnostic tool, with adequate psychometric properties.

Using a reliable and valid diagnostic instrument, the Coolidge Axis II Inventory, Coolidge and Anderson (2002) compared women who had experienced multiple abusive relationships to those who had experienced one abusive relationship or to a comparison group. No significant difference was found between the single abusive relationship group and the control group on a measure of PTSD. The women in multiple abusive relationships evidenced significantly more PTSD symptomatology than the women in the other two groups. Thirty-six percent of the women in multiple abusive relationships, fifteen percent of the women in single abusive relationships and seventeen percent of the control group reported PTSD symptomatology. The participants who met criteria for PTSD were compared and significant differences were found. Women in multiple abusive relationships who expressed PTSD symptomatology were more likely to have personality disorders than the women in single abusive relationships. Like many of the studies previously reviewed, the sample was recruited through a treatment program. The restricted sample, along with the failure to control for prior (non-IPV) traumas are limitations of this study. To accurately identify PTSD resulting from IPV, it is imperative to assess and control for previous traumatic experiences or to probe and assure that PTSD symptoms are due to IPV.

However, neglecting the role of previous traumatic experience is not the only methodological flaw within this body of research. PTSD symptomatology can also result from a

crisis reaction to a recent incident of abuse or distress resulting from dissolution of the relationship. Therefore when using samples recruited from shelters, the time frame between the abusive incident and the assessment should be extended. The majority of these studies (e.g., Abel, 2001; Astin et al., 1995; Humphreys et al., 2001; Kemp et al., 1991) utilized samples recruited from shelters. Shelter-samples are not representative of IPV victims, because most victims do not seek assistance. Victims who obtain services are also those who have the fewest available supportive resources (e.g., family, friends, Steinmetz, 1984). Further, many of these studies failed to use comparison groups (e.g., Houskamp & Foy, 1991; Kemp et al., 1991; Saunders, 1994) and most have investigated samples of urban women (e.g., Kemp et al., 1991; Houskamp & Foy, 1991).

Although the aforementioned studies (Abel, 2001; Astin, et. al., 1995; Cascardi et al., 1995; Coolidge & Anderson, 2002; Houskamp & Foy, 1991; Humphreys et. al., 2001; Kemp et. al., 1991; Saunders, 1994; Vogel & Marshall, 2001; Woods, 2001) unequivocally demonstrate a robust relationship between IPV and PTSD, the reviewed literature has yielded disparate prevalence rates, from 31% to 84% (Jones et al., 2000). These differing estimates possibly can be attributed to the lack of relevant control groups and representative samples, the utilization of unstandardized instruments and failure to control for prior traumas and time of assessment. Without comparison groups and sound methodology, interpretation and generalization is more difficult.

General Risk Factors for PTSD

Multiple variables have been identified as risk factors in the etiology of PTSD including demographic and genetic factors along with elements associated with an individual's personal and familial history (Yehuda, 1999). Specific demographic variables such as, low socioeconomic status (e.g., Bassuk, Dawson, Perloff & Weinreb, 1999; Brewin, Andrews & Valentine, 2000; Vogel & Marshall, 2001), minority status and low educational attainment (e.g., Brewin, Andrews & Valentine, 2000) have been implicated in the development of PTSD.

Likewise, gender is considered a risk factor with women more likely than men to develop PTSD, following exposure to a traumatic event (e.g., Brewin, Andrews & Valentine, 2000; Kessler et al., 1999).

Family psychiatric history (Yehuda, 1999), demonstrates a uniform predictive association in the etiology of PTSD (Brewin, Andrews & Valentine, 2000). An individual's own psychiatric history and preexisting psychopathology, such as personality disorders, may influence the development of PTSD (e.g., Brewin, Andrews & Valentine, 2000; DSM-IV, 2000, Gomez-Beneyto, 2006).

Specific Risk and Protective Factors

Social support. Despite the identification of specific risk factors associated with the etiology of PTSD and the increase in IPV research within the last two decades, little is known about why some IPV victims are at a higher risk for negative psychological sequelae. Within the popular literature, the relationship between beneficial effects of social support on psychological outcomes following traumatic event exposure is widely accepted (e.g., Muller, Goebel-Fabri, Diamond & Dinklage, 2003; Schat & Kelloway, 2003). In a recent meta-analysis, Brewin, Andrews, & Valentine (2000) found insufficient social support to have the strongest weighted effect size (.40) compared to 14 other risk factors for PTSD. Evidence suggests that the use of supportive resources serves as a buffer, protecting individuals from the pathogenic effects of stress (Carlson, McNutt, Choi & Rose, 2002; Cohen, Mermelstein, Kamack, & Hoberman, 1985; Coker, et. al., 2002). Coker et al. (2002) examined the association between IPV, mental health outcomes and social support. A cross-sectional survey was conducted using a sample of 1152 women recruited from university associated medical clinics. Abused women who reported more social support were less likely to evidence PTSD symptoms, anxiety, depression, and suicidal ideation. Specifically, IPV victims who claimed to have friends who were "always" supportive were less likely to report overall poor mental health, depression, anxiety and PTSD symptoms, regardless of IPV frequency.

Perceived support, the belief that others would be available if needed, has been the most widely investigated component of social support. Conversely, the impact of received support, actual receipt of support, has been neglected within the body of literature (Kaniasty, 2005). When perceived and received support are examined, perceived support demonstrates more beneficial effects. Specifically, perceived support has been associated with a stronger relationship with lower levels of distress than received support (Kaniasty & Norris, 1992). Andrews, Brewin & Rose (2003) investigated gender differences in social support and the benefit of supportive resources on PTSD symptomatology in a sample of 158 crime victims. The authors used an instrument to assess several components of support which measured the availability of others, emotional support, practical support, confiding in others, negative response and support satisfaction in relation to specific trauma. Compared to men, women exhibited higher scores on a measure of PTSD at both one month and six month post-assault. However, when negative response from social network was introduced into the regression equation, there was no longer a relationship between gender and PTSD symptoms. Thus, negative support mediates the relationship between gender and PTSD symptomatology. The impact of social support also varied by gender. The influence of negative response and support satisfaction was greater on women than on men. However, there were differences in types of event exposure for genders. Eighteen percent of female participants and zero percent of male participants reported sexual assault. Women were more likely to report negative response in relation to their assault experiences.

Smoking. Individuals with a history of traumatic event exposure are apt to abuse substances (e.g., alcohol; Najavits, Weiss & Shaw, 1999; Springs & Friedrich, 1992; Stewart, 1996; Volpicelli et al., 1999). Among traumatized populations, there are few studies to date on smoking, as compared to alcohol abuse (Op Den Velde et al., 2002), with the majority of this research using samples of veterans (e.g., Beckham, 1995; Schnurr & Spiro, 1999; Op Den Velde et al., 2002). Within the extant literature, a strong relationship between heavy smoking

and depression, anxiety, and other measures of distress has been found (Khantzian, 1997). Among persons meeting criteria for PTSD, sixty percent are current smokers. Further, individuals with PTSD are more likely to be heavy smokers (Beckham, 1999; Beckham et al., 1997).

Two hypotheses have been utilized in explaining the relationship between PTSD and smoking. The first hypothesis uses a neurobiological framework, while the second hypothesis proposes a self-medication model. Koenen (2006) studied over 6,000 pairs of male twins and found a significant overlap between nicotine dependence and PTSD. Persons with pre-existing nicotine dependence, exposed to a traumatic event, were twice as likely to develop PTSD, compared to their non-smoking counterparts. Researchers hypothesize that nicotine affects central nervous system functioning, by modifying neurotransmitters (Carmody, 1992; e.g., dopamine) and stimulating neurobiological pathways, implicated in stress and addiction (Koenen, 2006). Thus, smoking could sensitize these pathways and predispose individuals to PTSD (Koenen, 2006).

The self-medication hypothesis is comprised of two important components. The first aspect suggests that people use, abuse and become dependent upon substances because they reduce stress, and the second component implies that there is a considerable degree of psychopharmacologic specificity in an individual's drug of choice (Khantzian, 2003). For example, an individual with PTSD may abuse psychostimulants in an effort to combat emotional numbing.

In the National Women's Study, Acierno, Kilpatrick, Resnick, Saunders and Best (1996) interviewed 3,009 women to test the hypothesis that higher rates of smoking are common in women who experienced traumatic events (i.e., physical or sexual assault) due to their attempts to alleviate negative affect. Information was obtained via telephone interviews. Findings demonstrated that the best predictor for the number of daily cigarettes smoked was a lifetime history of PTSD. Moreover, a lifetime history of depression and assault was most strongly correlated with smoking status. Compared to women with no history of assault, women with an

assault history were almost twice as likely to smoke.

There are limitations to the Acierno et al. (1996) findings. Data were obtained via telephone interviews, introducing sample bias. Demographic differences, such as socioeconomic status, race, ethnicity, gender, and age have been found when comparing individuals who have phones and those who do not (Stocks, 1988). Moreover, individuals who are hospitalized, incarcerated, living on a military base, or cannot speak English are not included. Telephone assessment may not be optimal for inquiring about topics so sensitive in nature, especially if a subject's family members are present during the conversation. Likewise, face to face contact with participants is ideal for rapport building, especially when asking about these types of traumatic experiences.

Using a sample of severely battered women, Weaver and Etzel (2003) examined patterns of cigarette smoking, as measured by the Fagerstrom Test of Nicotine Dependence (FTND; Heatherton, Kozlowski, Frecker, & Fagerstrom, 1991), and explored its relationship to sociodemographic variables, characteristics of IPV, PTSD and depression. Fifty-eight percent of the total sample identified themselves as current smokers. Forty-three percent of smokers endorsed smoking behavior consistent with that of heavy smokers. When the sample was compared on select sociodemographic variables, Weaver and Etzel (2003) found that unemployment and less education were significantly associated with higher scores on the FTND. However, there was no significant relationship between age, race, marital status, income and number of children and smoking dependence.

Smoking behavior was also related to characteristics of IPV. Women smokers who experienced more severe sexual coercion and dominance/isolation evidenced more symptoms of nicotine dependence. Women who experienced IPV more recently also scored higher on a measure of nicotine dependence. Depression and specific PTSD symptoms of reexperiencing and arousal were associated with higher scores on a measure of nicotine dependence. This investigation has significant limitations including lack of a comparison group and an

unrepresentative sample of help-seeking IPV victims. Further, the FTND is a measure of physical dependence. To thoroughly examine smoking behavior, motivation for cigarette usage needs to be assessed.

Topography of Traumatic Events. *Topography* refers to the characteristics of the trauma and how often it occurs. The topography of the abuse is an instrumental factor in the psychological sequelae of IPV, including PTSD. Astin et al (1995) explored PTSD in a sample of battered women and found that participants meeting criteria for PTSD reported significantly higher multiple trauma rates and childhood sexual abuse compared to IPV victims who did not meet criteria for PTSD. Women experiencing more severe abuse are also less likely to benefit from the provision of social support (Carlson et al., 2002). Severity of violence and history of exposure to traumatic events place individuals at a greater risk for morbidity (Carlson et al. 2002; Golding, 1999; Jones et al., 2002). In summary, previous research has demonstrated that trauma has a collective effect, with severity and frequency of trauma associated with greater pathological responding and a more detrimental impact on the victim (Astin et al., 1995; Green, et al., 2000; Kemp et al., 1995).

Rural Victims

Research shows that risk and prevalence of IPV cuts across racial, ethnic, geographic and social classifications (Bachman & Saltzman, 1995; Greenfeld, et al., 1998). While studies examining domestic violence in rural areas are limited, the existing literature suggests that rural and urban inhabitants experience equal rates of intimate partner violence (Greenfeld et. al., 1998; Zawitz, 1994). Current rates of IPV among the rural population range from 19% to 29% (Krishnan, Hilbert, Pase, 2001; Van Hightower & Gorton, 2001; Wagner et al., 1995). Although the prevalence of rural IPV may be similar that of urban areas, the inherent social and cultural treatment barriers cause the experience of rural victims to be highly different from those in urban areas.

Among rural victims of IPV, responses from law enforcement, religious beliefs, gender

roles and the lack of social support and programming play important roles in help-seeking behavior (e.g., Few, 2004; Gagne, 1992; Whipple, 1987). Research demonstrates that rural IPV victims describe interactions with the criminal justice system negatively (e.g., Logan, Shannon & Walker, 2005). In a study of the protective order process in rural and urban areas, Logan, Shannon and Walker (2005) found that rural women experienced more barriers to obtaining a protective order compared to their urban counterparts. Few (2004) qualitatively examined the experiences of Black and White rural battered women and discovered that both groups felt discriminated against by the police on the basis of gender. In another qualitative study, Websdale (1995) investigated the police responses to IPV in a rural area and found that patriarchal attitudes of the police officers inhibit effective responses to reports of IPV. Evidence demonstrates that having a traditional sex-role orientation increases the probability of a detrimental outcome resulting from IPV (Follingstad et al., 1991).

Researchers have identified religious teachings as the basis for these stereotypical gender roles in rural areas (Few, 2004; Navin, Stockhum, & Campell-Ruggard, 1993; Whipple, 1987). While some religious teachings hold women responsible for their abuse, others emphasize the importance of keeping the marital bond intact (Grama, 2000). Revealing IPV and seeking help are behaviors considered to be a disservice to the holy institution of marriage. This belief is not only held by the women who experience the abuse, it is also held by the community at large (Wendt & Cheers, 2002). These attitudes “intensify the isolation and entrapment of rural women” (Goekerman, Hamberger, & Barber, 1994).

Another barrier to services is the geographic isolation experienced by rural inhabitants (Few, 2004; Krishnan et al., 2002; Logan, Walker, & Luekefeld, 2001; Ulbrich & Stockdale, 2002; Websdale, 1995). In the event a woman decides to seek services, her access to services is limited by geographic seclusion. Travel distances and transportation also pose problems. The family may not own a car, and if they do, its use may be limited to the abuser (Goekerman et al., 1994). Similarly, accessing support may require lengthy traveling distances on

substandard tertiary roads (Grama, 2000). To make matters worse, there is no public transportation system in most rural areas (Grama, 2000; Ulbrich & Stockdale, 2002). Because individuals are not proximate, a victim has nowhere to turn for help. Social support is limited by the distances between neighbors (Goekerman et.al., 1994).

Another obstacle faced by rural women is the lack of programs available in their area. Many rural areas are without safe houses, shelters and assistance programs (Grama, 2000). A single rural domestic violence program may cover multiple counties in the state. These programs are often limited in funding, necessary auxiliary services and qualified personnel (Goekerman et al,1994). Over sixty-percent of rural areas have been designated as federal Mental Health Professional Shortage Areas (Doyle, 1998; Rural Health Bulletin, 1994). Mental health professionals, such as psychologists and psychiatrists, tend to practice in metropolitan areas (Doyle, 1998).

In a qualitative research study, Logan Stevenson, Evans and Leukfeld (2004) examined rural and urban women's perceptions of obstacles to accessing physical and mental health and criminal justice services. Significant differences were found between rural and urban women's perceived barriers to services accession, and rural women were more likely to identify lack of services, cultural norms (e.g., need for privacy), confidentiality concerns, lack of perceived need for help and gender/power issues as variables that obstruct service usage.

A pilot study conducted by Logan, Walker, Cole, Ratliff and Leukefeld (2003) examined the differences between rural and urban IPV victims. Rural women reported less social support than the urban participants. Compared to urban IPV victims, rural battered women encountered abuse earlier in the relationship and were more likely to have been maltreated as children. Both groups reported similar rates of psychological abuse, but rural women reported significantly more physical abuse. Further, rural women rated their overall physical and psychological health as significantly worse than urban women.

In a preliminary investigation, Adams, Lewis, Hunt and Fauber (2004) compared a

sample of college aged women from rural and non-rural environments, and found results incongruent with the Logan et al. (2003) study. While equal rates of IPV were discovered among both groups, the non-rural group evinced higher rates of PTSD and reported fewer social supports, compared to the rural group.

Thorngren (2003) suggests experiences in rural life both contribute to and ameliorate psychological problems. A strength and weakness typically inherent in rural communities is that of community support. While rural inhabitants may benefit from an informal support network among their extended families and community members, this may also undermine their view of the necessity of formal services. For example, rural residents may over rely on friends instead of obtaining professional help.

In summary, the literature suggests that limited access to services, cultural and social norms, and geographic isolation are common barriers to utilizing services among rural IPV victims. For these reasons, the needs of rural victims should be considered disparate from that of urban victims.

Statement of the Problem

Rural life is replete with a myriad of stressors including lack of services, isolation, inadequate social support, and poverty, and these challenges are hypothesized to make the experience of rural IPV victims different from that of their urban counterparts. Thus, data obtained from urban samples may be insufficient in predicting and describing the psychological sequelae of rural IPV victims. The extant literature documents the prevalence and indicates that rural women experience more frequent and severe incidents of IPV (Krishnan et al., 2001; Logan et al., 2003; Van Hightower & Gorton, 2001; Wagner et al., 1995). However, these findings are limited by small sample sizes, lack of comparison groups and unreliable methods of assessment.

The Present Study

To date, no study has investigated variables that increase the risk for PTSD among rural

victims of IPV, using a comparison group of non-victims. Thus, this study makes a significant contribution to the literature by examining these pressing issues among a distinct cultural population and providing data on an understudied population. The sample was recruited from the rural Appalachian region, specifically the general community, medical and mental health clinics. In an effort to control for outcomes associated with rural living, the study employed a comparison group of rural non-battered women.

Method

Participants

Participants were 56 adult women. The entire Rural Control (RC group; N=30) and 13 participants of the Rural IPV (R-IPV group) were recruited from a primary care clinic and the general community in southern West Virginia (see following section for operational definitions of groups). An additional 13 women, meeting criteria for the IPV group were recruited from an outpatient treatment program in Eastern Kentucky. All participants were residents of rural counties. For the purposes of this study, rural is defined as a city, town or village with a population of 20,000 or less, in Eastern Kentucky and West Virginia. This definition excludes residents who reside in cities or surrounding counties. Participant demographic data are presented in the results section.

Inclusion Criteria and Group Membership. Participants were invited to participate, based on their responses to a brief screener that was administered orally, via telephone or face-to-face. Participants in the *IPV* group must have had a history of violence from an intimate partner within the past twelve months. An intimate partner was defined as an individual with whom the participant reported having a romantic relationship of at least three months duration. A history of IPV was assessed by participants' responses to a two-item screener (McFarlane, 1995; Appendix A, items 8 and 9). Women in the *RC* group met criteria if they denied violence by an intimate partner within the past five years. *All* participants must have been in an intimate relationship within the past twelve months, and the relationship must have lasted for at least

three months. Likewise, *all* participants must have met criteria for rural residence, as described above.

Recruitment. Participants were recruited from three rural settings, Valley Health-Fort Gay, the general community (e.g., referrals from other participants, flyers, etc.) and Project ADVANCE. Valley Health-Fort Gay is a primary care clinic in Southern West Virginia, operated by Valley Health Systems that provides dental care and a variety of medical services to individuals residing in Southern West Virginia and Eastern Kentucky. Forty-three participants were recruited from Valley Health-Fort Gay and the general community, thirty of these participants met criteria for the Rural Control (RC Group) and thirteen met criteria for the Rural IPV group (R-IPV).

During data collection, the opportunity to collect data among a sample of rural women enrolled in a treatment program, Project for **Addressing Dimensions of Domestic Violence and Addiction Needs through Community Efforts** (Project ADVANCE), was presented. Project ADVANCE is a unique, intensive outpatient treatment program for women that provides individual and group therapy, case management, and advocacy for women, with one or more of the following problems: substance abuse, domestic violence, and mental health. Although some clients of Project ADVANCE are self-referred, most are required by the Department of Protection and Permanency, or ordered by the court to attend Project ADVANCE for legal charges and/or custody issues. Thirteen participants, meeting criteria for the IPV group, were recruited from Project ADVANCE.

The staff of Project ADVANCE and Valley Health-Fort Gay or the primary investigator approached potential participants with the opportunity to participate in research. The majority of interested women were screened immediately. Based on their responses to an initial screener (see Appendix A), participants enrolled and completed the study the same day or were excluded from the study. Due to time constraints of the primary investigator or potential participants, some women who expressed interest were asked for their contact information. Afterwards,

those participants were called by the primary investigator and screened via telephone.

Participants who responded to flyers or a newspaper ad were responsible for making contact with the primary investigator, and subsequently screened via telephone. If these participants met criteria, they were invited to attend a research session or informed that they did not qualify.

Session. The principal investigator collected data at designated rooms at Fort Gay Family Health Center (at this location two female undergraduate students sometimes assisted with data collection), and Project ADVANCE. Data were collected individually and the protocol was administered orally to each participant, in an effort to ensure understanding, enable participants to ask questions, and minimize the possible effect of low reading levels. More importantly, research examining the impact of research of trauma-focused research suggests that oral administration of questions decreases the risk of potential harm (Griffin, Resick, Waldrop, Mechanic, 2003; Johnson & Benight, 2003; Newman, Walker, & Gefland, 1999; Ruzek & Zatzick, 2000). Therefore, all measures, including questionnaires that are unlikely to cause emotional upset were read to participants.

In the initial phase of the research session, the investigator or research assistant read the informed consent to each participant and it was signed by both the participant and the individual obtaining consent (Appendix B). Next, a packet of questionnaires was orally administered to each participant. Following completion of the questionnaires, participants were offered a list of community resources and mental health referral information, and were given the opportunity to discuss any concerns or issues that may have arisen during the session. All women were paid \$15 for their participation.

Measures.

The ordering of the questionnaire measures utilized in this study was as follows: First participants were asked to provide demographic information, complete self-report instruments assessing smoking dependence (FTND; Heatherton et al., 1989) and symptoms of PTSD (PDS; Foa et al., 1997). Next, participants completed questionnaires measuring social support

satisfaction (CSS; Joseph, et al., 1992), reasons for smoking (RFS; Ikard et al., 1969) and the provision of social support (SPS; Cutrona & Russell, 1987). Last, traumatic event exposure (THQ; Green, 1996) and history of IPV (CTS-2; Straus et al., 1996) was assessed. The order of the questionnaires in the present assessment battery is sequenced to reduce the inflation of psychological symptoms that may ensue after reporting potentially distressing experiences. Individuals who denied current smoking were not asked to complete the FTND and the RFS.

Demographics. A demographics questionnaire (see Appendix C) was administered to each participant. It included inquiries about the participant's age, income (amount and source), marital status, ethnicity, number of children, employment/occupation, and education. These data were used to generate descriptive information about the sample.

Fagerstrom Test of Nicotine Dependence (FTND; Heatherton, et al., 1991; see Appendix D). The FTND is a six-item self-report measure of nicotine dependence. It can be administered quickly and easily, and has been demonstrated to be a reliable and valid measure. Internal consistency levels are acceptable with an alpha level of .61. The FTND is closely related to biochemical measures of smoking, demonstrating validity (Heatherton, et al., 1991). The FTND assesses different aspects of smoking behavior and physical symptoms of nicotine dependence. In the present study, the FTND was used as a continuous measure to investigate differences in nicotine dependence among the groups of rural women. Higher scores reflect greater nicotine dependence.

Posttraumatic Stress Diagnostic Scale (PDS; Foa, 1995; see Appendix E). The PDS is a 49-item self-report instrument designed to assess the presence of PTSD symptomatology, based on DSM-IV criteria. Individual items load on several subscales: (a) exposure to traumatic event and peritraumatic responding, (b) re-experiencing the event, (c) avoidance of cues associated with the event, and (d) arousal. The PDS provides confirmatory information regarding the diagnosis of PTSD, the number of symptoms endorsed (maximum = 17), and the severity of symptoms (maximum = 61). Higher scores reflect greater symptoms of traumatic

stress.

Crisis Support Scale (CSS; Joseph, Williams & Yule, 1992; see Appendix F). The CSS consists of seven items. Each item is asked twice, regarding social support immediately following an identified crisis and at the present time. One item measures support satisfaction and the other six items are added to obtain a total crises support score. The respondent is asked to rate the items on a seven-point-Likert scale ranging from 'never' (1) to 'always' (7). The CSS demonstrates a high internal consistency of .80 (Joseph, Andrews, Williams & Yule, 1992). A higher score indicates an elevated level of support.

Reasons for Smoking Test (RFS; Ikard, Green & Horn, 1969; see Appendix G) The RFS is a 23-item self-report measure of smoking motivation. The RFS is divided into six subscales that assess subjective importance of smoking for reasons of addiction, regulation of negative affect, habitual, pleasurable relaxation, stimulation and sensorimotor manipulation. Higher subscale scores on the RFS reflect greater motivation to engage in smoking for that specific reason.

Social Provisions Scale (SPS; Cutrona & Russell, 1987; see Appendix H). The SPS is a 24-item self-report questionnaire designed to measure perceived social functions or "provisions" obtained from relationships with others. The SPS assesses six components of social support including: attachment (emotional closeness from which one derives a sense of security), opportunity to provide nurturance (the sense that others rely upon one for their well-being), reliable alliance (assurance that others can be counted upon for tangible assistance), supplying guidance (advice or information), reassurance of worth (recognition of one's competence, skills, and value by others) and social integration (a sense of belonging to a group). Reliability of the SPS is adequate, with each subscale ranging from .65 to .76 (Cutrona & Russell, 1987). Higher scores are indicative of greater levels of social support.

Trauma History Questionnaire (THQ; Green, 1996; see Appendix I). The THQ is a 24-item instrument assessing the experience of traumatic events in three areas: crime related (e.g.

robbery, mugging), general disaster and trauma (e.g., disaster, witnessing death) and unwanted physical and sexual experiences (e.g., rape). For each item, respondents indicate whether or not they experienced it, and if so, the number of incidences and the age(s) of occurrence.

Psychometric data on the THQ demonstrates adequate test-retest reliability of items over a two to three month period, with correlations ranging from .47 to 1.00, with a mean of .70 (Green, 1996). Higher scores are indicative of greater exposure to traumatic events and lower scores reflect less traumatic event exposure.

Revised Conflicts Tactics Scale (CTS-2; Straus, Hamby, Boney-McCoy & Sugarman, 1996; see Appendix J). The CTS-2 is a 78-item self-report instrument used to assess both adaptive (e.g., negotiation) and maladaptive (assault) behaviors employed in conflict resolution. The CTS-2 was used to measure the level of violence experienced by the participant within the past 12 months. Individual items are divided into five subscales; Physical Assault (12 items) and Psychological Aggression (eight items) Negotiation (six items) Sexual Coercion (seven items), and Injury (six items). To obtain a total violence score, the Physical Assault, Sexual Coercion, and Injury scales are summed. The possible responses are arranged as a Likert Scale, ranging from 1 (None) to 6 (Very Often). The CTS-2 has been found to have good psychometric properties. All scales have good internal consistency, construct validity, and discriminant validity (Straus, et al., 1996). Higher scores on the CTS-2 indicate a greater number and/or frequency of IPV.

Hypotheses. Several exploratory hypotheses directed the statistical analyses. By comparing rural IPV victims to rural non-victims, it was hypothesized that IPV victims would evidence less social support, report less support satisfaction and greater nicotine dependence, have a longer history of smoking, report greater history of traumatic events and be more likely to suffer from PTSD symptomatology. Conversely, it was hypothesized that rural non-victims would have more social support, report more satisfaction with social support, be less likely to smoke and report less traumatic event exposure, compared to the rural IPV victims.

The participants were further divided into two separate groups: those who meet criteria for PTSD (PTSD-positive) and those who do not (PTSD-negative). PTSD-positive participants were compared to PTSD-negative participants. It was hypothesized that PTSD-positive victims would report deficient and unsatisfactory social support networks, evince higher rates of smoking dependence, report more frequent and severe partner violence and have a greater history of traumatic event exposure.

Statistical Analysis

Group Comparisons for Victim Status. Because the obtained sample characteristics deviate from the original design, the initial step in the statistical analyses assessed for differences between the two victim groups, which included three distinct phases. First, demographic data of the victim groups were compared. Second, chi-square comparisons were conducted to examine the differences between the groups on the Posttraumatic Diagnostic Scale (i.e., those who meet diagnostic criteria and those who do not), and smoking status. Lastly, independent samples t-tests were used to determine whether or not there are significant differences between the two victim groups on continuous variables. The following criteria were applied in determining the next step of analyses.

- If no differences were detected, the participants identified as IPV victims, would be treated as a homogenous group. As such, two groups, an IPV group and a RC group, would be compared, using independent sample t-tests, and descriptive statistics to describe and compare demographic data, as described in the original proposal.
- If differences between the two victim groups were found, three distinct groups (rural IPV victims recruited from the general community (R-IPV) rural IPV victims in treatment (T-IPV) and the rural control group of non-victims (RC group) would be compared by using Analysis of Variance (ANOVA) with planned comparisons (Tukey HSD moderately

conservative post-hoc tests). Descriptive statistics would be used to describe and compare demographic data.

Group comparison for PTSD-positive and PTSD-negative participants. The second step of analysis required comparison of participants, in all three groups, on the basis of PTSD status. First, demographic data of the PTSD-positive and PTSD-negative groups were compared. Second, chi-square comparisons were employed to examine the differences between these two groups on categorical data (e.g., smoking status). Next, independent samples t-tests were used to determine whether or not there are significant differences between the PTSD-positive and PTSD-negative groups on continuous variables.

Results

Comparison of victim groups

Chi-square analyses and independent samples t-tests were performed on selected variables to determine whether or not differences exist between the two victim groups, and these findings were used to guide the next phase of statistical analyses (see tables 1 and 2). If distinct differences were detected, the IPV victims would be divided into two separate groups and thus, the analyses would compare two victim groups and one control group.

First, demographic comparisons of age, relationship status, number of marriages, number of children and education were computed by using independent samples t-tests and chi-square and produced no significant differences between the victim groups. However, significant differences emerged on employment and income, with victims recruited from a treatment setting being more likely than those recruited from the general community to report unemployment, and report lower income levels. No significant differences were detected on smoking status and whether criteria for PTSD were met or not.

The second part of the preliminary comparisons, using independent samples t-tests, revealed more differences between IPV victims recruited from the general community and IPV victims enrolled in an intensive outpatient treatment program. Specifically, the victims in

treatment reported a lower income range, and scored higher on measures of social support, including total SPS score, and four of its subscales: social integration, reliable alliance, guidance, and opportunity for nurturance, when compared to the victims recruited from the general community.

Further, independent samples t-test revealed significant differences on a measure of IPV, the CTS-2, with the victims in treatment reporting more domestic violence. Specific subscale discrepancies included levels of Psychological Aggression, Assault, Injury, as well as the total CTS violence score. In summary, victims enrolled in treatment differed demographically and scored higher on measures of social support and domestic violence, when compared to victims recruited from the general community. Because these findings suggest notable differences among women endorsing violence within the past year, participants were divided into three distinct groups:

(a) rural women experiencing IPV within the past year, recruited from a primary care clinic and the general community (Rural IPV group; R-IPV Group, N=13)

(b) rural women experiencing IPV within the past year and receiving treatment (Rural IPV victims in treatment; T-IPV, N=13)

(c) rural women, with no history of IPV within the past year, recruited from a primary care clinic and the general community (Rural Control group; RC Group, N=30)

Demographics

The participants' age range of 19-69 years ($M=33.4$, $Mdn=32.5$, $SD=10.7$) was skewed (see table 3 for demographic information). The majority of participants fell between the ages of 19-47, with few participants falling into the older range. For example, only one participant was 50 years old, one participant was 54 years old, and one participant was 69 years old. When the three groups were compared, no significant differences for age were found. Participants were 98.2% (N=55) Caucasian and 1.8% (N=1) other. The demographics questionnaire requires participants who endorse "other" as their ethnicity to specify, and this individual identified herself

as biracial.

To investigate group differences for relationship status while controlling for small cell sizes, multiple categories (i.e., divorced, dating, etc.) were collapsed to two categories: currently in a relationship or not in a relationship currently. Significant group differences in relationship status were discovered. One hundred percent of the RC group reported being in a relationship currently, compared to 77% of the R-IPV group and 69% of the T-IPV group. The mean number of children for the entire sample was 1.7 (Mdn.=1.5, Mode=1, SD= 1.4, range=0 to 8), with no significant differences between the groups.

SES. Fifty-two percent of the sample reported current employment. Chi-square results indicated that there were significant differences in employment by group, with fewer of the T-IPV group reporting current employment than the RC and R-IPV groups. To control for small cell sizes, income ranges were collapsed into four categories. Afterwards, ANOVA was used to determine differences in family income among the groups and significance was detected. The mean annual family income of the T-IPV group fell into the 0 to \$10,000 range, while the mean annual family income for the RC and R-IPV groups fell into the \$11,000 to \$20,000 range. Thus, when the three groups were compared demographic differences were discovered. Compared to the RC and R-IPV groups, the T-IPV group reported lower levels of income and were less likely to be employed. More participants in the RC group reported being in a relationship than in both victim groups.

Smoking

The three groups were compared on smoking status, FTND scores, two smoking history items and the RFS measure. Fifty-nine percent of the entire sample reported current smoking. Chi-square analyses were used and significant differences were found regarding smoking status, $\chi^2(2) = 10.99, p < .005$. Ninety-two percent of the T-IPV group, 69.2% of the R-IPV group and 40% of the RC group reported current smoking. Two questions, derived from the smoking history questionnaire, were used to assess smoking behavior history. ANOVA was used to

determine differences on these questions, between the three groups. However, no group differences were detected. The mean age of starting regular daily cigarette smoking, for the entire sample was 16.7 years, with the average number of years smoking at 14 years.

FTND. An ANOVA detected significant differences between the members of each group, who reported current smoking, on a measure of nicotine dependence, the total score of the FTND (see table 4). Tukey HSD post-hoc analyses revealed that the RC group had significantly lower scores than the R-IPV and T-IPV, but the violence groups did not differ from each other. Scores on the FTND for the entire sample ranged from 2-16. No differences were detected when comparing the three groups on the individual items that measure the number of cigarettes smoked per day and the time after awakening when the first daily cigarette is smoked; both factors are considered to be strong predictors of smoking dependence.

RFS. An ANOVA revealed significant differences on a smoking motivation scale, Reasons for Smoking (RFS), total score and three subscales (see Table 4). Tukey HSD, post-hoc analysis indicated the RC group scored significantly lower than the R-IPV and T-IPV groups, on the RFS total score, and the Addictive subscale. However, the R-IPV and T-IPV groups did not differ from each other on the RFS total score or the Addictive subscale. Between the three groups, a significant difference was also detected, through ANOVA, Tukey HSD post hoc analyses, on both the Pleasurable Relaxation and the Sensorimotor Manipulation subscales, with the R-IPV group scoring higher than the RC group. However, no other significant group difference was found on the Pleasurable Relaxation and Sensorimotor Manipulation subscales.

On smoking variables, significant differences were found on smoking status and smoking motivation measures. On the total smoking dependence and the RFS total and Addictive subscale scores, the two victim groups scored higher than the RC group. Further, the R-IPV group scored higher than the RC group on the Pleasurable Relaxation and Sensorimotor subscales.

Social Support

SPS. The RC, R-IPV and T-IPV groups were compared on both measures of social support: the SPS and CSS. ANOVA comparisons, followed by Tukey HSD post hoc tests, revealed significant differences between the three groups on the SPS total score and four of the six subscales (see Table 5). The total SPS score for the T-IPV group was higher than both the RC and R-IPV groups, with no significant differences detected on the total SPS score for the RC and R-IPV groups. A similar pattern emerged, when all three groups were compared on SPS subscale scores. Compared to the RC and R-IPV groups, the T-IPV group scored significantly higher on the social integration subscale, the reliable alliance subscale, the guidance subscale, and the opportunity for nurturance subscale. No significant differences were found between the three groups on the attachment and reassurance of worth subscales.

CSS. ANOVA, followed by Tukey HSD post hoc tests, revealed significant differences on the CSS (see Table 5). Specific differences were detected between the three groups on a measure of social support following a crisis, with the RC group scoring higher than the T-IPV group. All three groups' responses to two specific questions derived from the CSS, which measure overall support satisfaction, were also compared. Compared to the T-IPV group, the RC group reported more satisfaction with their support system following their most recent crisis. The RC group also reported higher satisfaction with their current support system than the R-IPV group. No other differences were detected on an analysis of the CSS.

To recapitulate, the T-IPV group scored higher on the SPS total, social integration, reliable alliance, guidance and opportunity for nurturance scales than the RC and R-IPV groups. On the CSS, the RC group scored higher than the victim groups on a measure of social support following a recent crisis, while reporting more satisfaction with crisis support and current levels of support.

Trauma

THQ. On measures of total lifetime traumatic events, current IPV, and Posttraumatic Stress symptomatology, the three groups were compared. Chi-square analyses were used to compare the three groups on various types of traumatic experiences. Compared to the RC and R-IPV groups, the T-IPV group was more likely to report the traumatic events of someone trying “to take something directly from you by using force or threat of force, such as stick up or mugging,” $X^2[2]= 13.7, p =.001$ and having “been in any other situation in which you feared you might be killed or seriously injured”, $X^2[2]= 12.3, p <.005$. No significant differences were discovered when employing ANOVA to compare the three groups on the cumulative number of different traumas, as measured by the THQ. The number of different traumas ranged from 3-19 ($M= 7.48, Mdn = 7, SD= 3.24$). Due to its inclusive design, group comparisons for all THQ items will not be presented here. However, the items experienced by a significant number of participants (greater than 25% of the sample) are provided (see table 6).

CTS-2. ANOVA, followed by Tukey HSD post hoc tests was used to compare the three groups on CTS-2 total and scale scores and group differences emerged (see Table 7). To obtain the CTS-2 total score, the Assault, Sexual Coercion and the Injury scales of the CTS-2 were summed. On the CTS-2 total score, both the T-IPV and R-IPV groups scored significantly higher than the RC group and when the two violence groups were compared, the T-IPV group scored significantly higher than the R-IPV group.

Although the Negotiation and Psychological Aggression scales were excluded from the total violence score summation, significant differences were detected, when the three groups were compared on these individual scales. Both the R-IPV and T-IPV groups scored significantly lower than the RC group, but no differences were detected between the R-IPV and T-IPV groups on the Negotiation scale. There were group differences on the Psychological Aggression scale, and Tukey HSD post-hoc analyses indicated that the T-IPV group reported

significantly higher Psychological Aggression than both the R-IPV and the RC groups. On the Assault scale, the T-IPV group scored significantly higher than both the R-IPV and RC groups, and the RC group scored lower than the R-IPV group. The T-IPV group reported more sexual coercion, than the RC group, and no differences were detected between the T-IPV and R-IPV groups on this measure. ANOVA indicated significant differences between the groups on the Injury scale, with the T-IPV group scoring higher than the RC and R-IPV groups.

PDS. Chi-square tests were computed to compare the RC, R-IPV and T-IPV groups on whether or not they meet criteria for PTSD. The R-IPV and T-IPV groups were more likely to meet criteria for PTSD than the RC group, $X^2[2] = 7.352, p < .05$. In fact, the prevalence of PTSD among the two victim groups (46.2%) was exactly the same, while thirteen percent of the RC group met criteria for PTSD. To compare PDS total scores and symptom scale scores, ANOVA was used and significant differences emerged (see Table 8). The R-IPV and T-IPV groups scored higher on the total PDS score, the Arousal symptom score, and the Avoidance symptom score. No differences were detected on the Re-experiencing symptom score.

In summary, no differences were discovered when comparing the three groups on an assessment of total lifetime traumatic events. However, several significant differences were detected between all three groups on a measure of IPV. Compared to the RC group, both of the victim groups scored higher on the total violence CTS-2 score. On the Assault scale, the T-IPV group scored higher than the RC and R-IPV groups and the RC group scored lower than the R-IPV group. The T-IPV group scored higher than the RC group on the Sexual Coercion scale. On the Injury scale, the T-IPV group scored higher than both the RC and R-IPV group. When PTSD status was compared, both victim groups were more likely to meet criteria than the RC group. Total PDS scores and specific subscale differences were also detected when the three groups were compared. Both victim groups scored higher on the PDS total score and the Arousal and Avoidance subscales.

Comparisons of participants and PTSD status

In the third phase of analyses, independent t-tests were employed in the comparison of victims based on PTSD status. All participants were included in this analysis, because a percentage of participants from each group met criteria for PTSD. Twenty-nine percent of the participants met criteria for PTSD (PTSD-positive), and these participants were compared to the remaining seventy-one percent of participants who did not meet criteria (PTSD-negative). Independent samples t-tests were used to compare these two groups on a variety of variables, including demographics, all measures of social support, the total number of different traumas endorsed, indicators of domestic violence and an assessment of smoking dependence.

When comparing the PTSD-positive and PTSD-negative groups on demographic variables, such as age, income and education, two significant differences were found. Participants meeting criteria for PTSD, reported significantly lower income levels $t(54) = 2.27$, $p < .05$, and were less likely to be employed, $X^2[2] = 5.35$, $p < .05$, than those who did not meet criteria. Independent samples t-tests also revealed differences on one smoking variable, with PTSD-positive victims scoring higher on Sensorimotor manipulation, as a reason for smoking, $t(32) = 3.44$, $p < .05$, compared to PTSD-negative participants. Significant differences were also found on a measure of IPV, specifically, PTSD positive participants scored higher on the psychological aggression scale of the CTS-2, $t(54) = 2.49$, $p < .05$. No other differences, between the PTSD-positive and PTSD-negative participants were found.

On demographic variables, participants meeting criteria for PTSD were more likely to be unemployed and reported lower income levels compared to participants who did not meet criteria. Significant differences were also detected on a smoking motivation variable, sensorimotor manipulation and an IPV measure, psychological aggression. PTSD-positive participants scored higher on both sensorimotor manipulation and psychological aggression, compared to PTSD-negative participants.

Discussion

The current study investigated consequences of IPV among rural victims of domestic violence, using a relevant comparison group. During data collection, the opportunity to collect data with participants in a treatment program was presented. While analyzing data, significant differences were found between victims recruited from the general community and victims in treatment. For this reason, subsequent analyses included two victim groups: those recruited from the general community (R-IPV) and victims enrolled in a treatment program (T-IPV) and one rural control group (RC).

Comparisons between the three groups yielded significant differences on a variety of variables. On demographic comparisons, the T-IPV group reported lower levels of income and were less likely to be employed than the RC and R-IPV groups. More participants in the RC group reported being in a relationship than in both victim groups.

Among all the participants, a high percentage reported current smoking, however, more participants in the victim groups reported current smoking compared to the control group. Among the three groups, significant differences were found on nicotine dependence and addiction, along with smoking motivation measures. Compared to the RC group, the R-IPV and T-IPV group scored higher on a measure of nicotine dependence and addiction. The R-IPV group scored higher on the Pleasurable Relaxation and Sensorimotor subscales.

Differences were also detected on measures of social support. The T-IPV group scored higher on the total SPS, social integration, guidance, and opportunity for nurturance compared to the RC and R-IPV groups. Conversely, the RC group scored higher than both victim groups on measures of social support following a recent crisis, while reporting more satisfaction with crisis support and current levels of support.

Although no differences were discovered when comparing the three groups on an assessment of total lifetime traumatic events, several significant differences were found between all three groups on a measure of IPV. Compared to the RC group, both of the victim

groups scored higher on the total violence CTS-2 score. On the Assault scale, the T-IPV group scored higher than the RC and R-IPV groups and the RC group scored lower than the R-IPV group. The T-IPV group scored higher than the RC group and on the Sexual Coercion. On the Injury scale, the T-IPV group scored higher than both the RC and R-IPV group. Both victim groups were more likely to meet criteria for PTSD than the RC group. When the three groups were compared, on a measure of PTSD, total PDS scores and specific subscale differences were detected. Both victim groups scored higher on the PDS total score and the Arousal and Avoidance subscales than the RC group.

In comparing PTSD-positive participants to PTSD-negative participants, significant differences were detected on demographic variables; individuals meeting criteria were more likely to be unemployed and reported lower levels of income. PTSD-negative participants endorsed higher levels of psychological aggression and were more likely to report sensorimotor manipulation as a reason for smoking.

Demographic Information

The three groups were similar on many important demographic variables, including their age, ethnicity and number of children. Further, all participants were from rural areas. However, there were observed group differences in relationship status, employment, and income levels. The T-IPV group reported lower levels of income and were less likely to be employed than the RC and R-IPV groups. Compared to both the victim groups, the RC group was more likely to be in a relationship.

These findings are congruent with previous research, which has discovered an inverse relationship between IPV risk and socioeconomic status and found the financial status of women to actually decrease after victimization. Similarly, victimization places women at risk for unemployment status and divorce (Byrne, Resnick, Kilpatrick, Saunders & Best, 1997; Kilpatrick, et al. 1998). Thus, IPV appears to impair occupational and interpersonal functioning, which has a detrimental impact on socioeconomic status and intimate relationships.

While the abovementioned research does not fully explain the demographic differences, between the three groups, some of the discrepancy could be accounted for by the treatment program: Project ADVANCE. The intensive nature of Project ADVANCE requires commitment to treatment for up to three days per week. Thus, Project ADVANCE clients may be unable to maintain employment, remain committed to treatment and meet other competing demands (e.g., children). Because treatment compliance is likely to interfere with their ability to maintain employment, their income levels may be impacted.

Smoking

Overall, the prevalence of smoking for the entire sample was high, as rates of tobacco use are in rural areas. Compared to urban residents, rural inhabitants are more likely to smoke, with 27 percent of women and 31 percent of men identifying themselves as smokers (Eberhardt, et al., 2001). Both predominantly rural states, Kentucky and West Virginia lead the country in smoking prevalence, with 30.8% and 27.9% respectively (CDC, 1998). Therefore, this finding can be attributed to, in part, characteristics of rural Appalachian residence. Nevertheless, the prevalence of smoking in this sample is much higher than what would be expected among women residing in this region.

Significant differences were found on smoking status, measures of smoking dependence and smoking motivation, with a higher prevalence of smoking among the two victim groups. Both victim groups scored higher on measures of smoking dependence and the RFS Addictive subscale than the RC group. Interestingly, the R-IPV group was more likely to report Pleasurable Relaxation and Sensorimotor Manipulation as a reason for smoking compared to the RC group.

Research demonstrates that individuals smoke for various reasons including stress reduction and alleviate withdrawal symptom alleviation (e.g, Hughes, 1992; Parrott, 1999). Because nicotine has an anxiolytic effect, individuals are more apt to smoke after stressful situations (Levin, Rose, Behm & Caskey; Parrott, 1999). It can be implied that women in violent

relationships experience a disproportionate amount of stress, thus, they have more opportunities to develop an addiction and become dependent upon cigarettes.

After becoming addicted and physiologically dependent on nicotine, victims may be more prone to smoke in an attempt to alleviate withdrawal symptoms. Difficult to cope with and quick to appear, smoking withdrawal symptomatology surfaces within one hour of nicotine deprivation and manifest through symptoms of anxiety, irritability, and restlessness (Hughes, 1992; Zvolensky, Schmidt & Stewart, 2003). Cigarette consumption is reinforced because it alleviates these negative internal states (Beckham, 1999). Thus, these findings can be attributed to victims' attempt to alleviate withdrawal symptoms and/or decrease stress in the absence of adaptive coping strategies.

Social Support

Between the three groups, differences were detected on two measures of social support. The SPS assesses the perceived provision of social support, while the CSS measures received support, specifically assessing support at present, support following a recent crisis and satisfaction with crisis and current support. Comparisons on these measures yielded interesting and inconsistent findings. The IPV victims in treatment scored higher on a social support constructs, including social integration, guidance, reliable alliance, opportunity for nurturance and a global measure of social support than the RC and R-IPV groups. Although the T-IPV group reported more perceived social support, the RC group scored higher than the victim groups on a measure of received support. Specifically, the RC group reported more crisis support and satisfaction with both current support and support following a recent crisis.

The comprehensive nature of Project ADVANCE may account for the differences in self-report of perceived social support between the T-IPV group and the RC and R-IPV groups. Project ADVANCE is an outpatient treatment program for women overcoming domestic violence (past or present), struggling with substance abuse and or mental health problems. As an intensive treatment program, participation requires attendance of two to five days per week.

Services options include victim advocacy, legal advocacy, case management, group and individual therapy, psychological evaluations, psychiatric services, housing, assessment, education and transportation.

Thus, individuals enrolled in Project ADVANCE are provided the opportunity to interact with others in similar situations and receive comprehensive services, while benefiting from a therapeutic milieu. Hence, Project ADVANCE offers victims the opportunity to benefit from the receipt and provision of formal and informal social supports.

It is also possible that the T-IPV's higher scores on social support measures resulted from demand characteristics. Understanding that the goals of Project ADVANCE include providing clients with a variety of supportive services, the T-IPV group may have felt compelled to describe high levels of support.

A possible explanation for the RC group's report of more received support may stem from the research methodology. Participants were asked to think about the most recent distressing situation and respond accordingly. While participants in the victim groups described recent episode of violence, individuals in the control group responded according to a recent, more generalized crisis (e.g., death of a loved one). A relationship has been found between the type of crisis one experiences and the support response from others. Thus, not all types of crises elicit similar supportive behaviors from others. Andrews et al. (2003) investigated social support among a sample of crime victims, and found that women were more likely to report a negative response in relation to their assault experiences. Negative responses and lack of supportive behaviors following a crisis resulting from victimization can be attributed to victim-blaming, since research has found many people assign responsibility to IPV victims for both physical and sexual assault (e.g., Bryant & Spencer, 2003; White & Kurpius, 1999).

Trauma

Comparisons of the groups on various types of traumatic event exposure, revealed two differences. The T-IPV group were more likely report the traumatic events of someone trying "to

take something directly from you by using force or threat of force, such as stick up or mugging,” and having “*been in any other situation in which you feared you might be killed or seriously injured*”, compared to the RC and R-IPV groups. Interestingly, the T-IPV group also reported lower income levels than the both the other groups. Thus, the higher prevalence of these two types of criminal victimization among the T-IPV group are consistent with findings from the literature, which suggests that women with the lowest incomes are more likely to be victims of various types of violence (U.S. Department of Justice, 1997). Another plausible explanation for the difference on these two items may lie within characteristics of violent relationships or high-risk situations. The T-IPV group also reported more severe violence, so increased exposure to highly aggressive, violent partners is probable. Contact with aggressive individuals is more likely to occur in environments where illegal activity is taking place (Buddie & Parks, 2003), thereby, increasing the risk of traumatic exposure and criminal victimization.

Between the three groups, no differences were detected on the number of cumulative traumas experienced. The number of different traumas experienced was high for the entire sample. Traumatic event exposure is a common phenomena among women, with 51% of women reporting at least one traumatic event during their lifetime, and large percentage of those experiencing traumatic events report two or more traumatic events during their lifetime (Kessler et al., 1995). However, the average number of different traumas reported by this sample was seven, and with a range of scores from three to nineteen. Although 85% of participants reported a traumatic event in the category of “other”, the most common specific trauma endorsed was “*receiving news of serious injury, life threatening illness, or unexpected illness of someone close to you*” (71.4%). Over 60% of the sample reported being forced to have sex against their will during their lifetime, and this finding is much higher than prevalence of rape in national samples. For example, Kessler et al. (1995) found that 9.8% of women reported a lifetime history of rape.

Multiple significant differences were detected on the CTS-2. Compared to the victim

groups, the RC group was more likely to describe negotiation as a mechanism of resolving interpersonal conflict, reflecting adaptive communication strategies. Overall, the T-IPV group endorsed more IPV experiences compared to the other groups, especially psychological aggression, assault, and injury, demonstrating increased severity of victimization experiences. As described above, the T-IPV reported lower levels of income and there is a negative correlation between income and victimization, especially IPV (U.S. Department of Justice, 2000).

These differences in IPV severity may also be attributed to characteristics of individuals in treatment settings. Because the T-IPV group was enrolled in treatment, group members were likely to have previously reported and processed abuse experiences with professionals and para-professionals, thus, increasing their willingness to disclose in a research situation. While these data were not collected, many clients of Project ADVANCE are court-ordered into treatment for domestic violence. Therefore, it can be conjectured that victims of more severe and potentially lethal violence are more likely to receive the attention of law enforcement and the larger legal system.

While both victim groups were more likely to meet criteria for PTSD compared to the RC group, no difference was found between the T-IPV group and R-IPV groups on PTSD-status, or specific symptom scores. The lack of differences in PTSD status among the R-IPV and T-IPV groups is both surprising and inconsistent with previous literature. The extant body of research would suggest that the differences in types of traumatic event exposure increased severity of IPV and lower socioeconomic status of the T-IPV group would put these victims at greater risk for PTSD morbidity than the R-IPV group (e.g., Bassuk, et al., 1999; Golding, 1999; Jones, et al., 2001; Vogel & Marshall, 2001; Kessler et al., 1995).

This finding may be explained by the most obvious difference between the victim groups: one group was recruited from a treatment setting and the other group was recruited from the general community. Differences between victims in treatment and those who are not have been

investigated (e.g., Wilson, et al., 1992). Within the literature, it has been hypothesized that IPV victims in treatment (e.g., shelters) are possibly the most distressed of battered women (e.g., Jones et al., 2001; Salazer & Cook, 2002). However, an alternative description of battered women in treatment is that they are among the “healthiest” of victims with the strength necessary to receive help (Jones et al., 2001).

The SPS scores of the T-IPV group were higher than both the RC and R-IPV groups and these high levels of perceived support may serve as a buffer for the T-PV group from the detrimental effects of multiple risk factors for PTSD. The beneficial effects of perceived support have demonstrated a robust relationship in thwarting the trajectory of pathological responding to traumatic events (e.g., Kaniasty, 2005). Although the specific sources of support were not assessed, it is possible that the perception of supportive resources and their beneficial effects are a result of comprehensive, intensive, outpatient treatment. Project ADVANCE incorporates multiple supportive interventions, including housing, case management, advocacy and individual and therapies, and interventions that focus on facilitating and providing social support for individuals with victimization issues has demonstrated beneficial effects (e.g., Tan, Basta, Sullivan & Davidson, 1995).

When PTSD-positive participants were compared to PTSD-negative participants, significant differences were detected on demographic variables. Specifically, participants meeting criteria for PTSD were more likely to be unemployed and reported lower income levels compared to participants who did not meet criteria. The lower income levels and unemployment status of individuals meeting criteria for PTSD is congruent with current literature, which documents the direct and indirect impact of PTSD on overall functioning. Individuals diagnosed with PTSD are likely to suffer from comorbid psychological and physical health problems (e.g., Schurr, Spiro & Davis, 2000). Impairments resulting from PTSD and comorbid conditions are related to the loss of productivity at work (Hildago & Davidson, 2000), and so it is likely that resultant functional impairments can impact an individual's ability to maintain employment.

Because more participants in the victim group met criteria for PTSD, some of the demographic differences can be attributed to being involved in an abusive relationship. IPV victims are often isolated from friends, family and community members by their abuse partners, making it difficult to maintain employment, thus impacting their income levels.

Significant differences were also detected on one smoking motivation variable, sensorimotor manipulation, suggesting that PTSD-positive participants are motivated to smoke from the gratification they obtain through handling the cigarette, taking steps to light up, watching the smoke as it is exhaled, etc. The relationship between PTSD-positive participants and sensorimotor manipulation as a reason for smoking is inconsistent with previous literature, which found a relationship between PTSD and nicotine dependence (e.g., Weaver & Etzel, 2003) and identifying reduction of negative affect as a reason for smoking (e.g., Acierno et al, 1996).

On the IPV measure, a significant difference was detected between the PTSD-positive and PTSD-negative groups on a measure of psychological aggression. Within the extant body of literature, the relationship between emotional and verbal abuse, such as psychological aggression has received limited attention. However, one study of IPV victims found that psychological aggression predicted PTSD symptoms, even after controlling for the extent of physical abuse (Arias & Pape, 1999).

Limitations

The generalizability and application of these findings are restricted by several methodological limitations. The demographic composition of the sample aligned with the goals of the research design, to investigate IPV among rural women. However, the sample was recruited from specific areas in rural Appalachia and self-selected to participate, both of which limit the generalizability of these findings, because it is not truly representative of rural women. The total sample and group sizes are small, which has a negative impact on data analyses, interpretation and generalizability.

The design of this study relies on retrospective self-report of demographic variables, smoking, social support, traumatic events and Posttraumatic Symptomatology. The questionnaires utilized in this study are widely accepted with adequate psychometric properties. Further, to ensure comprehension and allow participants to ask questions and address subsequent issues, the protocol was administered in an interview format. Nevertheless, the data were obtained through self-report. Within research communities, it is generally accepted that problems with self-report include its subjective nature and reliance on memory, which is fallible. Likewise, information obtained through self-report is often impacted by social desirability and demand characteristics. In addition, the measures used in this research to assess smoking behavior are not diagnostic, while biochemical indices of cigarette use have more validity as they are free from the limitations of self-report.

The general nature of IPV and victimization research requires disclosure of highly sensitive topics. For a variety of reasons, including fear of retaliatory violence from the abuser and reports to authorities along with shame and embarrassment, participants may be motivated to minimize or completely deny IPV and other victimization experiences. It is well beyond the scope of this investigation to assess an individual's victimization and traumatic event exposure history through a mechanism other than self-report.

Applications

Despite its limitations, this research provides valuable information on a neglected population: rural IPV victims. The research design incorporated adequate measures and utilized procedures designed to ensure comprehension and facilitate disclosure of sensitive information. By including rural IPV victims in treatment in the sample, the opportunity was provided to compare rural IPV victims in a unique treatment setting to those recruited from the general community and a control group of rural women. Examination of IPV among rural women is a requisite step in increasing awareness about an overlooked and underserved group. Thus, these findings are applicable, especially in developing programs for rural women with

victimization histories.

Although the finding of similar rates of PTSD among the T-IPV and R-IPV are unexpected, they are promising. Given the victim group discrepancies on several variables, identified as risk factors, one could hypothesize that the T-IPV group would evidence more psychopathology. However, this lack of difference among PTSD status could be accounted for by group differences on a protective factor: social support. Research suggests supportive factors provide a buffering effect for individuals with trauma histories, in spite of the presence of risk factors. Consistent with current research, these findings are noteworthy and provide evidence for beneficial effects of treatment programs like Project ADVANCE.

In order for similar IPV victim programs in rural areas to be efficacious, they should utilize evidence-based practices in areas of assessment and treatment while attending to the cultural and social norms of each community. First and foremost, services in rural areas must be safe and accessible. Secondly, because tailoring interventions to each victim's unique and dynamic needs is critical, a comprehensive assessment is vital in the initial stages of intervention. For this reason, a broad evaluation of psychopathology, traumatic event exposure, specifically victimization experiences, including psychological abuse, health risk behaviors, and social support is necessary. Further, given the high prevalence of health risk behaviors, such as smoking, among IPV victims (Acierno, et al., 1996), a behavioral health treatment component would be beneficial. Most importantly, social support should be woven into all components of treatment. Providing support, while assisting women in developing new and utilizing existing supportive networks has the potential to help victims thwart the psychological sequelae of IPV.

Among IPV victims, "the achievement and effectiveness of greater safety and emotional health is contingent upon the environments that cause the violence in the first place" (Logan, et al., 2005). Despite overwhelming changes in social norms and public policy, IPV remains highly prevalent and somewhat acceptable in today's society. In an effort to decrease tolerance of domestic violence, intervention and prevention efforts should be aimed at multiple systems with

a focus on educating community members and developing a “zero tolerance” for IPV climate. Further, in an effort to change the perceptions of law enforcement in rural areas, the police responses to IPV should be targeted. In doing so, victims may be more willing to involve law enforcement, thereby, addressing a barrier to service accession. Also, through these community interventions, acceptance and support for victim services could be fostered. Community level interventions in rural areas are essential and are unlikely to be successful if community members are disengaged and uninvolved. Without IPV services for individuals and communities, this pressing issue will continue to be disregarded in rural communities and victims will not receive services necessary to overcome the detrimental consequences of IPV.

Conclusion

While some of the findings generated from this study were unanticipated and inconsistent with previous research, others were consistent and expected. A surprising result was the lack of differences detected between the victim groups on a measure of PTSD, and the increased levels of social support reported by the T-IPV group. These results are inconsistent with previous research, which has documented that IPV victims in treatment evince higher prevalence of PTSD (e.g., Switzer et al., 1999) and lower levels of social support (e.g., Steinmetz, 1984), compared to victims who are not utilizing services. Therefore, these results of this study provide evidence for the supportive nature of comprehensive IPV programs designed for rural women.

Consistent with previous literature, these results suggest that IPV victims tend to engage in behaviors, such as smoking and remaining in violent relationships, which pose serious threats to their psychological and physical well-being. Similar to their urban counterparts, IPV victims in rural areas tend to suffer resultant negative consequences, including smoking dependence and addiction and PTSD. The differences between rural and urban IPV victims, such as accessibility to services, along with social and cultural norms, have been well documented. Further, the evidence supporting the beneficial effects of various treatment programs for

survivors of trauma is compelling. While these results provide preliminary support for the value of treatment programs like Project ADVANCE, no study to date has examined the effectiveness and utility of evidence-based trauma treatment among rural IPV victims.

Given the nature of rural life, interventions geared toward victimized individuals is unlikely to be successful, without the support of the community. Therefore, multiple systems within rural areas must be targeted, with the goals of increasing understanding and changing the culture of violence. Rural communities are not without their strengths and social support networks are their greatest asset, and, thus, these systems should be utilized in both community and individual treatment efforts.

References

- Abel, E.M. (2001). Comparing the social service utilization, exposure to violence and trauma symptomatology to domestic violence female "victims" and female "batterers." *Journal of Family Violence, 16* (4), 401-420.
- Abbot, J., Johnson, R., Koziol-McClain, J. & Lowenstein, S.R. (1995). Domestic violence against women: Incidence and prevalence in the emergency department population. *Journal of the American Medical Association, 273*(22), 1763-1767.
- Acierno, R.N., Kilpatrick, D.G., Resnick, H.S., Saunders, B.E. & Best, C.L. (1996). Violent Assault, Posttraumatic stress disorder and depression: Risk factors for cigarette use among adult women. *Behavior Modification, 20*(4), 363-384.
- Acierno, R.N., Resnick, H.S. & Kilpatrick, D.G. (1997). Prevalence rates, case identification, and risk factors for sexual assault, physical assault and domestic violence in men and women. *Behavioral Medicine, 23*(2), 53-64.
- Adams, A., Lewis, S. F., Hunt, A., & Fauber, A. (2004, March). Intimate partner violence in rural women. In M. J. Amerikaner (Chair), *Psychological and Behavioral Health Issues in Appalachia*. Symposium presented at the 27th Annual Meeting of the Appalachian Studies Association, Cherokee, NC.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed. text revision). Washington, D.C: Author.
- Andrews, B., Brewin, C.R. & Rose, S. (2003). Gender, social support and PTSD in victims of violent crime. *Journal of Traumatic Stress, 16*(4), 421-427.
- Archer, J. (2000). Sex differences in aggression between heterosexual partners: A meta-analytic review. *Psychological Bulletin, 126*(5), 651-680.
- Arias, I. & Pape, K.T. (1999). Psychological Abuse: Implications for adjustment and commitment to leave partners. *Violence and Victims, 14*(1), 55-67.

- Astin, M.C., Ogland-Hand, S.M., Coleman, E.M. & Foy, D.M. (1995). Posttraumatic stress disorder and childhood abuse in battered women: Comparisons with martially distressed women. *Journal of Consulting and Clinical Psychology, 63*(2), 308-312.
- Bachman, R. & Saltzman, L. (1995). *Violence Against Women: Estimates From the Redesigned Survey*. U.S. Department of Justice, Bureau of Justice Statistics, NCJ 154348; 1995.
- Bassuk, E.L., Dawson, R., Perloff, J. & Weinreb, L. (2001). Post-traumatic stress disorder in extremely poor women: Implications for health care clinicians. *Journal of the American Medical Women's Association, 56*(2), 79-85.
- Beckham, J.C. (1999). Smoking and anxiety in combat veterans with chronic posttraumatic stress disorder: A review. *Journal of Psychoactive Drugs, 31*, 103-110.
- Beckham, J.C., Feldman, M.E., Vrana, S.R., Mozley, S.L., Erkanli, A., Clancy, C.P., Rose & J.E. (2005). Immediate antecedents of cigarette smoking in smokers with and without Posttraumatic Stress Disorder: A preliminary study. *Experimental and Clinical Psychopharmacology, 13* (3), 219-228.
- Beckham, J.C., Kirby, S.C., Feldman, M.C., Hertsberg, M.A., Moore, S.D., Crawford, A.L., et al., (1997). Pervallence and correlates of heaving smoking in Vietnam veterans with chronic Posttraumatic Stress Disorder. *Addictive Behaviors, 21*, 93-101.
- Beckham, J.C., Roodman, A.A., Shipley, R.H., Hertzberg, M.A., Cunha, G.H., Kudler, H.S., Levin, E.D., Rose, J.E. & Fairbank, J.A. (1995). Smoking in Vietnam combat veterans with posttraumatic stress disorder. *Journal of Traumatic Stress, 8*, 461-472.
- Brewin, C.R., Andrews, B. & Valentine, J. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology, 68*(5), 748-766.
- Browne, A. (1993). Violence against women by male partners: Prevalence, outcomes and policy implications. *American Psychologist, 48*(10), 1077-1087.

- Bryant, S.A. & Spencer, G.A. (2003). University students' attitude about attributing blame in domestic violence. *Journal of Family Violence, 18*(6), 369-376.
- Buzawa E.S. & Buzawa. C.G. (2000). *Domestic violence: The criminal justice response*. 3rd Ed. Newbury Park, CA: Sage Publications.
- Buddie, A. & Parks, K. (2003). The role of the bar context and social behaviors on women's risk for aggression. *Journal of Interpersonal Violence, 18*, 1378-1393.
- Byrne, C.A., Resnick, H.S., Kilpatrick, D.G., Best, C.L. & Saunders, B.E. (1999). The socioeconomic impact of interpersonal violence on women. *Journal of Consulting and Clinical Psychology, 67*(3), 362-366.
- CDC. State-specific Prevalence of Current Cigarette and Cigar Smoking among Adults-United States Fact Sheet, 1998. Tobacco Information and Prevention Source (TIPS). 1999.http://www.cdc.gov/tobacco/research_data/adults_prev/mmwr1199fs.htm
August 10, 2001.
- Campbell, J.C., Poland, M.L., Waller, J.B., & Ager, J. (1992). Correlates of battering during pregnancy. *Research in Nursing and Health, 15*, 12-17.
- Carlson, B.E., McNutt, L., Choi, D. & Rose, I. M. (2002). Intimate partner abuse and mental health: The role of social support and other factors. *Violence Against Women, 8*(6), 720-745.
- Carmody, T.P. (1992). Affect regulation, nicotine addiction, and smoking cessation. *Journal of Psychoactive Drugs, 24*, 111-122.
- Cascardi, M. & O'Leary, K. (1992). Depressive symptomatology, self-esteem, and self-blame in battered women. *Journal of Family Violence, 7*, 249-259.
- Cascardi, M., O'Leary, K.D. & Schlee, K.A. (1999). Co-occurrence and correlates of posttraumatic stress disorder and major depression in physically abused women. *Journal of Family Violence, 14*(3), 227-249.

- Cascardi, M., O'Leary, K.D., Lawrence, E.E. & Schlee, K.A. (1995). Characteristics of women physically abused by their spouses and who seek treatment regarding marital conflict. *Journal of Consulting and Clinical Psychology, 63*(4), 616-623.
- Cochran, M.L. (1974). The Revised Ohio Literacy Test with normal adults. *Journal of Clinical Psychology, 30*, 321-325.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. San Diego, CA: Academic Press.
- Cohen, S., Mermelstein, R., Kamarck, T., Hoberman, H. (1985). Measuring the functional components of social support. In I.G. Sarason & B.R. Sarason (Eds.), *Social support: Theory, research and applications* (pp. 73-94). The Hague, Holland: Martinus Nijhoff.
- Coker, A.L., Hall-Smith, P., McKeown, R.E. & King, M.J. (2000). Frequency and correlates of intimate partner violence by type: Physical, sexual, and psychological battering. *American Journal of Public Health, 90*(4), 5553-5559.
- Coker, A.L., Smith, P.G., Thompson, M.P., McKeown, R.E., Bethea, L., & Davis, K.E. (2002). Social support protects against the negative effects of partner violence on mental health. *Journal of Women's Health & Gender -Based Medicine, 11*, 465-476.
- Coolidge, F.L. & Anderson, L.W. (2002). Personality profiles of women in multiple abusive relationships. *Journal of Family Violence, 17*(2), 117-131.
- Curtona, C. & Russell, D. (1987). The provisions of social relationships and adaptation to stress. In: Jones, W. & D. Perlman (Eds.), *Advances in Personal Relationships* (pp. 37-67). Greenwich, CT: JAI Press.
- Dobash, R. E. & Dobash, R. (1979). *Violence against wives: A case against the patriarchy*. New York, NY: The Free Press.
- Doyle, R. (1998). Where the doctors aren't. *Scientific American, 279*, 4-31.

- Drossman, D.A., Talley, N.J., Leaserman, J., Olden, K.W., Barreiro, M.A. (1995). Sexual and physical abuse and gastrointestinal illness: Review and recommendations. *Annals of internal medicine*, 123(1), 782-794.
- Eberhardt, M.S; Ingram, D.D. & Makuk, D.M. Urban and Rural Health Chartbook. *Health, United States, 2001*. Hyattsville, MD: National Center for Health Statistics, 2001, 32-35.
- Few, A.L. (2004). The voices of black and white rural battered women in domestic violence shelters. *Family Relations*, 54, 488-500.
- Fritchcraft, A., Hadley, S., Hendricks-Matthews, M.L., McLeer, S.V. & Warshaw, C. (1992). Diagnostic and Treatment Guidelines on Domestic Violence. Chicago, IL: American Medical Association.
- Foa, E.B., Cashman, L., Jaycox, L., & Perry, K. (1997). The validation of a self-report measure of posttraumatic stress disorder: The Posttraumatic diagnostic scale. *Psychological Assessment*, 9(4), 445-451.
- Follingstad, D.R., Brennan, A.F., Hause, E.S., Polek, D.S. & Rutledge, L.L. (1991). Factors moderating physical and psychological symptoms of battered women. *Journal of Family Violence*, 6(1), 81-94.
- Gagne, P.L. (1992). Appalachian women: Violence and social control. *Journal of Contemporary Ethnography*, 20, 386-415.
- Gazmararian, J.A., Lazorick, S., Spitz, A.M., Ballard, T.J., Saltzman, L.E. & Marks, J.S. (1996). Prevalence of violence against pregnant women. *JAMA*, 275(24), 1915-1920.
- Gelles, R. (1993). *Current Controversies on Family Violence*. Newbury Park, California: Sage Publications.
- Gelles, R. (1997). *Intimate Violence in Families, 3rd Edition*. Thousand Oaks, CA: Sage Publications.

- Gelles, R. & Straus, M.A. (1988). *Intimate violence: The causes and consequences of abuse in the American family*. New York: Simon & Schuster.
- Goekerman, C., Hamberger, L., & Barber, K. (1994). Issues of domestic violence unique to rural areas. *Wisconsin Medical Journal*, 93, 473-479.
- Golding, J.M. (1999). Intimate partner violence as a risk factor for mental disorders: A meta-analysis. *Journal of Family Violence*, 14(2), 99-132.
- Gomez-Beneyto, M. (2006). Posttraumatic Stress Disorder in primary care with specialized reference to personality disorder comorbidity. *The British Journal of General Practice*, 56 (526), 349-354.
- Goode, W.J. (1971). Force and violence in the family. *Journal of Marriage and the Family*, 33(4), 624-636.
- Grama, J.L. (2000). Women forgotten: Difficulties faced by rural victims of domestic violence. *American Journal of Family Law*, 14, 173-189.
- Green, B.L. (1996). Psychometric Review of Trauma History Questionnaire (Self-report). In B.H. Stamm & E.M. Varra (Eds.) *Measurement of Stress, Trauma and Adaptation*. Lutherville, MD: Sidran.
- Green, B., Goodman, L., Krupnick, J., Corcoran, C., Petty, R., Stockton, P. & Stern, N. (2000). Outcomes of single versus multiple trauma exposure in a screening sample. *Journal of Traumatic Stress*, 13(2), 271-286.
- Greenfeld, L.A., Rand, M.R., Craven, D., Klaus, P.A., Perkins, C.A., Ringel, C., Warchol, G Masten C. & Fox, J.A. (1998). *Violence by intimates: Analysis of data on crimes by current or former spouses, boyfriends, and girlfriends*. Washington, D.C: Department of Justice, Bureau of Justice Statistics. (No. 167237).
- Griffin, M.G., Resick, P.A., Waldrop, A.E. & Mechanic, M.B (2003). Participation in trauma research: Is there evidence of harm. *Journal of Traumatic Stress*, 16(3), 221-227.

Griso, J.A., Wishner, A.R., Schwartz, D.F., Wenne, B.A., Holmes, J.H. & Sutton, R.L.(1991).

A population-based study of injuries in inner-city women. *American Journal of Epidemiology*, 34, 59-68.

Harwell, T.S., Casten, R., Armstrong, K., Dempsey, S., Coons, H.L.& Davis, M. (1998).

Results of a domestic violence training program offered to the staff of urban community health centers. *American Journal of Preventive Medicine*, 15(3), 235- 242.

Heatherton, T.F., Kozlowski, L.T., Frecker, R.C. & Fagerstrom, K. (1991). The Fagerstrom

Test of Nicotine Dependence: a Revision of the Fagerstrom Tolerance Questionnaire. *British Journal of Addiction*, 86, 1119-1127.

Hildago, R.B. & Davidson, J.R. (2000). Posttraumatic Stress Disorder: Epidemiology and health-related considerations. *Journal of Clinical Psychiatry*, 61(7), 5-13.

Horowitz, M., Wilner, N., & Alvarez, W. (1979). Impact of Event Scale: A measure of subjective distress. *Psychosomatic Medicine*, 41, 209-218.

Houskamp, B., & Foy, D. (1991). The assessment of posttraumatic stress disorder in battered women. *Journal of Interpersonal Violence*, 6, 367-375.

Hughes, J.R. (1992). Tobacco withdrawal in self-quitters. *Journal of Consulting and Clinical Psychology*, 60(5), 689-697.

Humphreys, J., Lee, K., Neylan, T. & Marmar, C. (2001). Psychological and physical distress of sheltered battered women. *Health Care for Women International*, 22, 401-414.

Ikard, F.F., Green D.E. & Horn, D. (1969). A scale to differentiate between types of smoking as related to the management of affect. *International Journal of Addictions*, 4, 649-659.

Johnson, L.E. & Benight, C.C.(2003). Effects of trauma-focused research on recent domestic violence survivors. *Journal of Traumatic Stress*, 16(6), 567-571.

- Johnson, M. (1995). The patriarchal terrorism and common couple violence: Two forms of violence against women. *Journal of Marriage & Family*, 57(2), 283-295.
- Jones, L., Hughes, M., Unterstaller, U. (2001). Posttraumatic Stress Disorder (PTSD) in victims of domestic violence: A review of the research. *Trauma, Violence & Abuse*, 2(2), 99-119.
- Joseph, S. A., Andrews, B., Williams, R. & Yule, W. (1992). Crisis support and psychiatric symptomatology in adult survivors of the Jupiter cruise ship disaster. *British Journal of Clinical Psychology*, 31, 63-73.
- Joseph, S.A., Williams, R. & Yule, W. (1992). Crises support, attributional style, coping style and post-traumatic symptoms. *Personality and Individual Differences*, 13, 1249-1251.
- Kaniasty, K. (2005). Social support and traumatic stress. *PTSD Research Quarterly*, 16 (2), 1-7.
- Kaniasty, K. & Norris, F. (1992). Social support and victims of crime: Matching event, support, and outcome. *American Journal of Community Psychology*, 31, 63-73.
- Kemp, A., Green, B., Hovanitz, C., & Rawlings, E. (1995). Incidence and prevalence of posttraumatic stress disorder in battered women. *Journal of Interpersonal Violence*, 10, 43-55.
- Kemp, A., Rawlings, E., & Green, B. (1991). Post-traumatic stress disorder (PTSD) in battered women: A shelter sample. *Journal of Traumatic Stress*, 4, 137-148.
- Kessler, R.C., Sonnega, A., Bromet, E., Hughes, M. & Nelson, C.B. (1995). Posttraumatic stress disorder in the national comorbidity survey. *Archives of General Psychiatry*, 52, 1048-1060.
- Kessler, R.C., Sonnega, A., Bromet, E., Hughes, M. & Nelson, C.B., & Breslau, N. (1999). Epidemiological risk factors for trauma and PTSD. In R. Yehuda (Ed.) Risk factors for Posttraumatic Stress Disorder. (pp. 23-60). Washington, DC: American Psychiatric Press, Inc.

- Khantzian, E. (1997). The self-medication hypothesis of substance abuse disorders: A reconsideration of recent applications. *Harvard Review of Psychiatry*, 4, 231-244.
- Khantzian, E. (2003). The self-medication hypothesis revisited: The dually diagnosed patient. *Primary Psychiatry*, 10(9), 47-54,
- Kilpatrick, D.G., Acierno, R., Saunders, B., Resnick, H.S., Best, C.L. & Schnurr, P.P. (2000). Risk factors for adolescent substance abuse and dependence: Data from a national sample. *Journal of Consulting and Clinical Psychology*, 68(1), 19-30.
- Koenen, K. (2006). Smoking linked with PTSD. *The Brown University Digest of Addiction Theory & Application*, 25 (1), 1.
- Krishnan, S.P., Hilbert, J.C., & Pase, M. (2001). An examination of intimate partner violence in rural communities: Results from a hospital emergency department study from southwest United States. *Family & Community Health*, 24(1), 1-14.
- Levin, E.D., Rose, J.E., Behm, F. & Caskey, N.H. (1991). The effects of smoking-related sensory cues on psychological stress. *Pharmacology Biochemistry and Behavior*, 39, 265-268.
- Lewis, S. F. (2002). An investigation of help-seeking behavior in battered women. Unpublished doctoral dissertation, West Virginia University, West Virginia.
- Lockhart, L., White, B, Causby, V., & Isaac, A. (1994). Letting out the secret: Violence in lesbian relationships. *The Journal of Interpersonal Violence*, 9 (4), 469-492.
- Logan, T.K., Shannon, L. & Walker, R. (2005). Protective orders in rural and urban areas: A multiple perspective study. *Violence Against Women*, 11(7), 876-911.
- Logan, T.K., Stevenson, E., Evans, L. & Leukfeld, C. (2004). Rural and urban women's perceptions of barriers to health, mental health, and criminal justice services: Implications for victim service. *Violence and Victims*, 19(1), 37-62.

- Logan, T.K., Walker, R., Cole, J., Ratliff, S. & Leukefeld, C. (2003). Qualitative differences among rural and urban intimate violence victimization experiences and consequences: A pilot study. *Journal of Family Violence, 18*, 83-92.
- Logan, T.K., Walker, R., & Leukefeld, C. (2001). Rural, urban influenced and urban differences among domestic violence arrestees. *Journal of Interpersonal Violence, 16*, 266-283.
- McCauley, J., Kern, D.E., Kolokner, K., Dill, L., Schroeder, A.F., DeChant, H.K., Ryden, J., Bass, E.B., & Derogatis, L.R. (1995). The "Battering Syndrome": Prevalence and clinical characteristics of domestic violence in primary care internal medicine practices. *Annals of Internal Medicine, 123*, 737-746.
- McFarlane, J. (1995). Identification of abuse in emergency departments: Effectiveness of a two-question screening tool. *Journal of Emergency Nursing, 21*, 391-394.
- McFarlane, J., Parker, B., Soeken, K. & Bullock, L. (1992). Assessing for abuse during pregnancy. *Journal of the American Medical Association, 267*(23), 3176-3178.
- McLeer, S.V., Anwar, R.A.H., Herman, S. Maquiling, K. (1989). Education is not enough: A systems failure in protecting battered women. *Annals of Emergency Medicine, 18*, 651-653.
- Mezey, G.C. & Bewley, S. (1997). Domestic violence and pregnancy. *British Medical Journal, 314*, 1295.
- Mills, M.E. (1990). The new heretics: Men. *American Psychologist, 45*(5), 675-676.
- Muller, R.T., Goevel-Fabri, A.E., Diamond, T. & Dinklage, D. (2000). Social support and the relationship between family and community violence exposure and psychopathology among high risk adolescents. *Child Abuse and Neglect, 24*, 449-464.
- Najavits, L.M., Weiss, R.D. & Shaw, S.R. (1999). A clinical profile of women with posttraumatic stress disorder and substance dependence. *Psychology of Addictive Behaviors, 13*(2), 98-104.

National Center for Injury Prevention and Control (2003). *Costs of Intimate Partner Violence against Women in the United States*. Atlanta, GA: Centers for Disease Control and Prevention.

Navin, S., Stockhum R., & Campell-Ruggard, J. (1993). Battered women in rural america. *Journal of Humanistic Education and Development*, 32, 9-16

Newman, E., Walker, E.A. & Gefland, A. (1999). Assessing the ethical costs and benefits of trauma-focused research. *General Hospital Psychiatry*, 21, 181-196.

Op Den Velde, W., Aarts, P., Falger, P., Hovens, J., Van Duijun, H., Groen, J., Van Duijn, M (2002). Alcohol use, cigarette consumption and chronic posttraumatic stress disorder. *Alcohol & Alcoholism*, 37(4), 355-361.

Ovara, T.A., McLeod, P.J. & Sharpe, D. (1996). Perceptions of control, depressive symptomology, and self-esteem of women in transition from abusive relationships. *Journal of Family Violence*, 11(2), 167-186.

Parrott, A.C. (1999). Does cigarette smoking cause stress? *American Psychologist*, 54(10), 817-820

Randall, T. (1990). Domestic violence intervention calls for more than treating injuries. *Journal of the American Medical Association*, 264, 939-940.

Renninson, C.M. & Welchans, S. (2000). Intimate partner violence. Washington, D.C: Department of Justice, Bureau of Justice Statistics. (No. 178247)

Resnick, H.S., Kilpatrick, D.G., Dansky, B.S., Saunders, B.E., Best, C.L. (1993). Prevalence of civilian trauma and posttraumatic stress disorder in a representative sample of women. *Journal of Consulting and Clinical Psychology*, 61(6), 984-991.

Rural Health Bulletin (1994). Protecting the mind and body of rural America. *APA Practice Directorate*, 1(1), 1-7.

- Ruzek, J.I. & Zatick, D.F. (2000). Ethical considerations in research participation among acutely injured trauma survivors: An empirical investigation. *General Hospital Psychiatry, 22*, 27-36.
- Saltzman, L.E., Fanslow, J.L., McMahon, P.M. & Shelley, J.A. (1999). Intimate partner violence surveillance: Uniform definitions and recommended data elements, Version 1.0. Atlanta (GA): National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Salazar, L. & Cook, S. (2002). Violence against women: Is psychology part of the problem or the solution? A current analysis of the psychological research from 1990 through 1999. *Journal of Community and Applied Social Psychology, 12*, 410-421.
- Saunders, B.E., Arata, C.M., & Kilpatrick, D. (1990). Development of a crime-related post traumatic stress disorder scale for women within the symptom checklist-90-revised. *Journal of Traumatic Stress, 3*, 439-448.
- Saunders, D.G. (1994). Posttraumatic stress symptoms of battered women: A comparison of survivors in two settings. *Violence and Victims, 9*(1), 31-44.
- Schat, A.C.H. & Kelloway, E.K. (2003). Reducing the adverse consequences of workplace aggression and violence: The buffering effects of organizational support. *Occupational Health Psychology, 8*, 110-122.
- Schurr, P.P. & Spiro, A., III (1999). Combat exposure, posttraumatic stress disorder symptoms, and health behaviors as predictors of self-report physical health in older veterans. *Journal of Nervous and Mental Disease, 187*, 353-359.
- Schurr, P.P., Spiro, A., & Paris, A. (2000). Physician-diagnosed medical disorders in relation to PTSD symptoms in older military veterans. *Health Psychology, 19*, 91-97.
- Smith, M.D. (1990). Sociodemographic risk factors in wife abuse: Results from a survey of Toronto women. *Canadian Journal of Sociology, 15*, 39-58.

- Springs, F.E. & Friedrich, W.N. (1992). Health risk behaviors and medical sequelae of childhood sexual abuse. *Mayo Clinic Proceedings*, 67, 527-532.
- Steinmetz, S. (1978). The battered husband syndrome. *Victimology*, 2, 499-509.
- Steinmetz, C.H.D. (1984). Coping with serious crime: Self-help and outside help. *Victimology*, 9, 324-343.
- Stewart, S.H. (1996). Alcohol abuse in individuals exposed to trauma: A critical review *Psychological Bulletin*, 120, 83-112.
- Stocks, T.J. (1988). Has family violence decreased? A reassessment of Straus and Gelles data. *Journal of Marriage and the Family*, 50, 281-291.
- Straus, M.A. (1971). Some social antecedents of physical punishment: A linkage theory interpretation. *Journal of Marriage and the Family*, 33, 658-663.
- Straus, M., & Gelles, R. (1986). Societal change and change in family violence from 1975 to 1985 as revealed by two national surveys. *Journal of Marriage and the Family*, 48, 465-479.
- Straus, M.A., Hamby, S.L., Boney-McCoy, S. & Sugarman, D.B. (1996). The revised conflicts tactics scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues*, 17(3), 283-316.
- Switzer, G., Dew, A., Thompson, K., Goycoolea, J., Derricott, T., & Mullins, S. (1999). Posttraumatic stress disorder and service utilization among urban mental health clients. *Journal of Traumatic Stress*, 12, 25-39.
- Tan, C., Basta, J., Sullivan, C. & Davidson, W. (1995). The role of social support in the lives of women exiting domestic violence shelters. *Journal of Interpersonal Violence*, 20, 437-451.
- Thorngren, J.M. (2003). Rural mental health: A qualitative inquiry. *Journal of Rural Community Psychology*, E6(2), available at http://www.marshall.edu/jrcp/JRCP_E6_2_Thorngren.htm

- Tjaden, P., & Thoennes, N. (1998). Prevalence, incidence, and consequences of violence against women: Findings from the National Violence Against Women Survey (NCJ No.172837). Washington, DC: U.S. Department of Justice.
- Tjaden, P. & Thoennes, N. (2000). *Full report of the prevalence, incidence and consequences of violence against women: Findings from the National Violence Against Women Survey* (NCJ No.183781). Washington, DC: U.S. Department of Justice.
- Ulbrich, P.M. & Stockdale, J. (2002). Making family planning clinics an empowerment zone for rural battered women. *Women and Health, 35*, 83-101.
- Umberson, D., Anderson, K., Glick, J. & Shapiro, A. (1998). Domestic violence, personal control and gender. *Journal of Marriage & Family, 60*(2), 442-453.
- U.S. Department of Justice (1997). *Sex differences in violent victimization, 1994: Bureau of Justice Statistics special report* (NCJ 178247). Washington, DC: Office of Justice Programs.
- U.S. Department of Justice (2000). *Intimate partner violence: Bureau of Justice Statistics special report* (NCJ 178247). Washington DC: Office of Justice Programs.
- Van Hightower, N.R. & Gorton, J. (1998). Domestic violence among patients at two rural health care clinics: Prevalence and social correlates. *Public Health Nursing, 15*(5), 355-362.
- Vogel, L.C.M. & Marshall, L.L. (2001). PTSD symptoms and partner abuse: Low income women at risk. *Journal of Traumatic Stress, 14*(3), 569-584.
- Volpicelli, J., Balaraman, G., Hahn, J., Wallace, M.A., & Bux, D. (1999). The role of uncontrollable trauma in the development of PTSD and alcohol addiction. *Alcohol Research & Health, 23*(4), 256-262.
- Walker, L.E.A. (1989). Psychology and violence against women. *American Psychologist, 44*(4), 695-702.

- Wagner, P.J., Morgan, P., Hamrick, D., & Hendrick, L.K. (1995). Experience of abuse in primary care patients: Racial and rural differences. *Archives of Family Medicine, 4*, 956-962.
- Weaver, T.L. & Etzel, J.C. (2003). Smoking patterns, Symptoms of PTSD and depression: Preliminary findings from a sample of severely battered women. *Addictive Behaviors, 28*(9), 1165-1679.
- Websdale, N. (1995). Rural woman abuse: The voices of Kentucky women. *Violence Against Women, 1*(4), 309-338.
- Wendt, S., & Cheers, B. (2002). Impact of rural culture on domestic violence. *Rural Social Work, 7*, 22-32.
- Whipple, V. (1987). Counseling battered women from fundamentalist churches. *Journal of Marital and family therapy 13*, 251-258.
- White, J.W., & Kowalski, R.M. (1994). Deconstructing the myth of the nonaggressive woman: A feminist analysis. *Psychology of Women Quarterly, 18*, 487-50.
- White, B., & Kurpius, S. (1999). Attitude towards rape victims: Effects of gender and professional status. *Journal of Interpersonal Violence, 14*, 989-995.
- Wilson, K. Vercella, R., Brems, C., Benning, D. & Renfro, N. (1992). Levels of learned helplessness in abused women. *Women & Therapy, 13*, 53-67.
- Woods, S.J., (2000). Prevalence and patterns of posttraumatic stress disorder in abused and postabused women. *Issues in Mental Health Nursing, 21*, 309-324
- Yehuda, R. (1999). *Risk factors for Posttraumatic Stress Disorder*. Washington, DC: American Psychiatric Press, Inc.
- Zawitz, M.W. (1994). Violence between intimates. Washington, DC: Department of Justice, Bureau of Justice Statistics (No. 149229).
- Zvolensky, M.J., Schmidt, N.B. & Stewart, S.H. (2003). Panic disorder and smoking. *Clinical Psychology: Science and Practice, 10*(1), 29-51.

Table 1**Chi-Square Group Comparisons for Victims Status**

	<u>Group</u>	
	<i>Victims from General Community</i>	<i>Victims in Treatment</i>
Employment *		
Employed	61.5%	15.4%
Unemployed	38.5%	84.6%
Relationship Status		
In a Relationship	76.9%	69.2%
Not in a Relationship	23.1%	30.8%
Smoking Status		
Smoker	69.2%	92.3%
Non-smoker	30.8%	7.7%
PTSD status		
PTSD-positive	46.2%	46.2%
PTSD-negative	53.8%	53.8%

Note: *p<.05

Table 2**T-test Comparisons by Victim Status**

	Group		t	df
	<i>Victims from the General Community</i>	<i>Victims in Treatment</i>		
	M (SD)	M (SD)		
Demographics				
Age	33.4 (10)	28 (6.0)	1.6	24.00
Number of marriages	1.3 (.65)	1.3 (.70)	.00	19.00
Number of Children	1.5 (.96)	2.0 (1.2)	1.1	24.00
Income**	2.5 (1.1) (11,000 to 20,000)	1.2 (.38)	4.5	15.02
Smoking				
FTND score	11.2 (3.7)	10.6 (3.2)	.42	19
Age first smoking	16.2 (4.1)	16.1 (3.3)	.87	19
Years smoking	13.2 (8.0)	11.3 (6.2)	.61	19
RFS Total	82.3 (11.9)	76.3 (12.2)	1.1	19
Habitual	10.4 (4.6)	10.9 (3.2)	.27	19
Addictive	21.8 (3.1)	19.0 (4.6)	1.5	19
Reduce Negative Affect	24.7 (4.3)	24.0 (3.6)	.39	19
Stimulation	9.8 (3.2)	7.7 (3.9)	1.3	19
Sensorimotor manipulation	6.6 (2.2)	6.7 (2.5)	.10	19

Table 2 (continued)**T-test Comparisons by Victim Status**

	Group		t	df
	<i>Victims from the General Community</i>	<i>Victims in Treatment</i>		
	M (SD)	M (SD)		
Social Support				
SPS				
Total Score**	61.5 (3.5)	74.6 (10.6)	4.23	14.5
Social Integration**	9.8 (1.3)	13.4 (1.6)	6.43	24.0
Reliable Alliance**	10.4 (1.0)	13.3 (2.9)	3.45	24.0
Guidance*	10.2 (.93)	12.7 (2.6)	3.19	14.9
Opportunity for Nurturance**	10.5 (1.1)	14.0 (1.5)	6.88	24.0
Attachment	10.7 (1.2)	10.5 (2.7)	.380	24.0
Reassurance of Worth	9.9 (1.2)	10.8 (2.0)	1.30	24.0
CSS				
Support current	33.8 (9.8)	36.5 (6.8)	.810	24.0
Support after crisis	29.0 (11.5)	26.5 (11.0)	.560	24.0

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

Table 2 (continued)

T-test Comparisons by Victim Status

	Group		t	df
	<i>Victims from the General Community</i>	<i>Victims in Treatment</i>		
	M (SD)	M (SD)		
Trauma				
Total THQ	7.5 (2.5)	9.2 (4.1)	1.2	24.0
<i>CTS-2</i>				
Negotiation	16.7 (9.9)	17.2 (7.1)	.16	24.0
Psychological Aggression**	19.4 (7.6)	29.2 (7.1)	3.4	24.0
Total Violence**	13.5 (7.9)	41.0 (24.1)	3.9	14.5
Assault**	7.9 (5.5)	23.7 (13.2)	3.9	15.9
Injury**	1.7 (2.0)	7.8 (5.7)	3.6	14.9
Sexual Coercion	3.9 (5.7)	9.5 (11.3)	1.5	24.0
PDS total score	23.6 (7.7)	25.3 (14.6)	.37	24.0

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

Table 3**Demographic Comparisons for Three Groups (ANOVA)**

	<u>Group</u>		
	<i>RC</i>	<i>R-IPV</i>	<i>T-IPV</i>
	<u>ANOVA</u>		
	M (SD)	M (SD)	M(SD)
Age	35.6 (11.9)	33.4 (10.0)	28.2 (6.4)
# of children	1.6 (1.6)	1.5 (.97)	2.0 (1.2)
# of marriages	1.6 (.72)	1.3 (.65)	1.3 (.70)
Income***	2.6 (.93) (11,000 -20,000)	2.6 (1.1) (11,000 -20,000)	1.2 (.38) (0-10,000)

Note: *** $p=.001$

Table 3 (continued)

Demographic Comparisons for Three Groups (Chi-Square)

	<u>Group</u>		
	<i>RC</i>	<i>R-IPV</i>	<i>T-IPV</i>
<u>Chi-Square</u>			
<i>Relationship Status**</i>			
In a Relationship	100%	77%	69%
Not in a Relationship	0%	23%	31%
<i>Employment***</i>			
Employed	63%	61.5%	15%
Unemployed	37%	38.5%	85%

 Note:

**p<.01

*** p=.001

Table 4**Comparisons for Three Groups (ANOVA) on Smoking Variables**

	<u>Group</u>		
	<i>RC</i>	<i>R-IPV</i>	<i>T-IPV</i>
	M (SD)	M (SD)	M (SD)
<i>FTND</i>			
Total Score**	6.3 (3.7)	11.2 (3.7)	10.6 (9.2)
Time to 1 st cigarette	54.0 (46)	20.0 (24)	29.0 (85)
# of cigarettes	14.4 (10.8)	19.4 (9.2)	22.1 (11.1)
Age first smoking	17.7 (4.8)	16.2 (4.1)	16.1 (3.2)
Years smoking	17.2 (14.9)	13.2 (7.9)	11.3 (6.2)
<i>RFS</i>			
Total Score***	61.3 (14.9)	82.3 (11.8)	76.3 (12.2)
Habitual	8.7 (3.7)	10.4 (4.6)	10.9 (3.2)
Reduce negative affect	21.7 (3.8)	24.7 (4.3)	24.0 (3.6)
Stimulation	5.9 (3.7)	9.8 (3.2)	7.7 (3.9)
Addictive***	14.4 (5.4)	21.8 (3.1)	19.2 (4.6)
Pleasurable Relaxation**	6.7 (2.7)	9.1 (1.7)	7.9 (1.8)
Sensorimotor Manipulation*	4.0 (1.5)	6.6 (2.2)	6.7 (2.5)

Note:

* $p=.05$ ** $p<.01$ *** $p<.005$

Table 5**Comparisons for Three Groups (ANOVA) on Social Support Measures**

	<u>Group</u>		
	<i>RC</i>	<i>R-IPV</i>	<i>T-IPV</i>
	M (SD)	M (SD)	M (SD)
<i>SPS</i>			
Total Score *	60.7 (4.2)	61.5 (3.5)	74.6 (10.6)
Social Integration*	9.7 (1.3)	9.7 (1.3)	13.4 (1.5)
Reliable Alliance*	10.2 (1.0)	10.4 (1.0)	13.3 (2.9)
Guidance*	10.2 (.81)	10.2 (.92)	12.7 (2.6)
Opportunity for Nurturance*	10.5 (1.1)	9.2 (1.7)	14.0 (1.5)
Attachment	10.8 (1.4)	10.8 (1.2)	10.5 (2.6)
Reassurance of Worth	10.6 (1.3)	9.8 (1.3)	13.4 (1.6)
<i>CSS</i>			
Support Current	31.4 (4.9)	28.7 (8.0)	30.8 (5.9)
Support after Crisis**	30.1 (7.9)	24.1 (9.6)	27.1 (8.7)
Satisfaction with Support Following Crisis***	5.9 (1.9)	4.9 (2.3)	3.3 (2.6)
Satisfaction with Current Support***	6.7 (.64)	5.2 (2.4)	5.7 (1.4)

Note: * $p < .001$, ** $p < .01$, *** $p < .05$

Table 6
Percentage of Participants Endorsing Individual Items on the THQ

<u><i>Crime-Related Events</i></u>	
Attempted to rob you or actually robbed you	32.1%
Attempted to break into your home	32.1%
<u><i>General Disaster and Trauma</i></u>	
Serious accident at work, in a car or somewhere else	41.1%
Experiences a natural disaster	28.6%
Been in a situation in which you feared you might be killed or seriously injured	44.6%
Seen someone seriously injured or killed	51.8%
Seen dead bodies or had to handle dead bodies for any reason	51.8%
Received news of serious injury, life threatening illness, or unexpected death of someone close to you	71.4%
<u><i>Physical and Sexual Experiences</i></u>	
Sex against your will	60.7%
Touched private parts, under force or threat	30.4%
<u><i>Other</i></u>	
Other stressful situation	85.7%

Table 7**Comparisons for Three Groups (ANOVA) on CTS-2**

	<u>Group</u>		
	<i>RC</i>	<i>R-IPV</i>	<i>T-IPV</i>
	M (SD)	M (SD)	M (SD)
Total Violence *	---	13.5 (7.9)	41.0 (24.1)
Assault**	----	7.9 (5.5)	23.7 (13.2)
Injury**	----	1.7 (2.0)	7.8 (5.7)
Sexual Coercion**	----	3.9 (5.7)	9.5 (11.3)
Psychological Aggression**	5.2 (5.5)	19.4 (7.6)	29.2 (7.1)
Negotiation***	23.9 (8.1)	16.7 (9.9)	17.2 (7.1)

Note: Values for the RC group on the Total Violence, Assault, Injury and Sexual Coercion scales are not provided as they equal approximately zero.

* $p=.001$

** $p < .001$

*** $p < .05$

Table 8**Comparisons for Three Groups (ANOVA) on PDS**

	<u>Group</u>		
	<i>RC</i>	<i>R-IPV</i>	<i>T-IPV</i>
	M (SD)	M (SD)	M (SD)
PDS			
Total Score*	11.7 (9.1)	23.6 (7.7)	25.3 (14.6)
Avoidance*	3.6 (3.5)	9.6 (4.5)	9.8 (7.5)
Arousal*	4.3 (3.7)	9.3 (3.1)	9.2 (4.1)
Re-experiencing	3.7 (3.2)	4.7 (3.6)	3.7 (3.1)

Note: * $p < .001$

**Screener
 (Appendix A)**

Screener Name: _____

Date of Call: _____

“My name is _____ and I am calling from Marshall University. I am calling because you have agreed to participate in a research project. I really appreciate you volunteering and taking some time to help me. I wanted to tell you a little bit about this project, what you will be doing, and then ask you a few questions. Then we will set up a time to get together.”

“Our research project is interested in relationships and how couples solve their problems. You will be answering questions about how you and your partner or previous partner resolved conflict. We are also interested in difficulties you may be having, such as depression or anxiety and we will be asking you how you have been feeling, recent experiences, and any problems you are currently having. All information that you provide to us is confidential and will not be discussed with anyone else, including the fact that you participated in this study. It will take approximately one hour and I will pay you \$15 when you are finished. Do you have any questions?”

“I am going to ask you a few questions and some of them are quite personal. I appreciate your honesty.”

1. Name: _____
2. Age: _____ (must be 18 years or older)
3. What is your county of residence? _____ (rural or non-rural)
4. Are you currently in a relationship? _____ (if yes, skip to #7, if no, go to next question)
5. When was the last time you were in a relationship? _____ (has to be within past 12 months)
6. How long did it last? _____ (must be 3 months or more)
7. How long has it been going on? _____ (must be 3 months or more)
8. Have you ever been hit, slapped, kicked, or otherwise physically hurt by your male partner?
Y or N
9. Have you ever been forced by your partner to have sexual activities against your will? Y or N
10. If yes to 8 or 9, when did this happen? _____

Within one year ---RIPV group

Must be out the violent relationship for five years to qualify for RC group

- I appreciate you answering personal questions about your private life. Let’s set up a time to get together.
- OR**
- I appreciate you answering personal questions about your private life. Based on your responses, you do not qualify for the study at this time. Thank you.

**Informed Consent to Participate in a Research Study:
Experiences and Health of Rural Women
(Appendix B)**

Introduction. You have been invited to participate in this research study. This study has been explained to me by Amanda Adams, M.A. or _____ research assistant. This research is being conducted by Dr. Margaret Fish and Amanda Adams, M.A. to fulfill the requirements for a doctoral dissertation in psychology at Marshall University.

Purposes of the Study. The purpose of this study is to learn more about intimate partner violence, smoking and psychological disorders among rural women. This study is voluntary and you may withdraw at any time without any type of penalty. There will be approximately 60 subjects enrolled in the study.

Description of the procedures. This study involves asking participants to complete a packet of questionnaires and will take less than 1 hour to complete. The questionnaires ask about a variety of issues, including available support systems, symptoms of depression and stress and general demographic information. The investigators may review the questions before signing the consent and they may skip any questions that you do not feel comfortable answering.

Risks and discomforts: There are no known or expected risks from participating in this study, except for the discomfort associated with discussing personally distressing experiences.

Alternatives: I may choose not to participate in the study.

Benefits: It is understood this study is not expected to be of direct benefit to you, but the knowledge gained may be of benefit to others.

In the case of Injury or Illness: In the unlikely event of injury or illness as a direct result of participating in the study, no compensation, financial or otherwise, will be provided by the investigators or Marshall University.

Payment for Participation: You will receive \$15 for participating in this study.

Confidentiality: We will do our best to make sure that your personal information is kept confidential. However, we cannot guarantee absolute confidentiality. Federal law says that we must keep your study records private. Nevertheless, under unforeseen and rare circumstances, we may be required by law to allow certain agencies to view your records. These agencies would include Marshall University IRB, Office of Research Integrity (ORI) and the Federal Office of Human Research Protection (OHRP). This is to make sure that we are protecting your rights and your safety. If we publish the information we learn from this study, you will not be identified by name or in any other way.

Contact Persons: If you have questions regarding this study, you may contact Dr. Margaret Fish at (304) 691-1185, Mrs. Adams' advisor.

If I have questions regarding your rights as a research subject, I may call Dr. Stephen Cooper, Marshall University IRB #2, at (304) 696-7320.

Statement of Informed Consent: I understand that participation in this study is voluntary and that I am free to withdraw my consent to participate in this study at any time. Refusal to participate or withdraw will involve no penalty or benefits. I have been given the opportunity to ask questions about the research, and I have received answers concerning the areas that I did not understand. I willingly consent to participate in this research and have received a copy of the signed informed consent form.

Signature of Subject

Date

Signature of Person Obtaining Consent

Date

Demographics

(Appendix C)

Please carefully read and answer the following questions. The questions concern yourself, your partner in a relationship, and experiences you may have had. "Partner" refers to someone you are living with or married to, or someone with whom you are involved in a romantic relationship (such as dating) for at least 3 months. Some questions may concern partners you have had in the past.

1. Today's Date _____

2. Age _____

3. Ethnicity (check one)

Caucasian African-American Asian-American Native American

Hispanic-American Other _____(specify)

4. Marital Status (check one)

Married Separated Living Together Dating Divorced Widowed

If Married, Length of Current Marriage _____ How many times have you been married? _____

5. Number of Children and their ages:

Number _____ Ages _____

6. Are you currently employed? yes no

If yes, what is your occupation? _____

7. Family Income (check one)

- Less than \$5,000 annually
- \$5,000 to \$10,000 annually
- \$11,000 to \$15,000 annually
- \$15,000 to \$20,000 annually
- \$21,000 to 30,000 annually
- \$31,000 to \$50,000 annually
- \$51,000 to \$75,000 annually
- \$76,000 to \$100,000 annually
- more than \$100,000 annually

9. Source of Family Income (check all that apply):

- Partner's job
- your job
- non-employment sources of income, (food stamps, Supplemental Security Income (SSI),
- Social Security Disability (SSDI)
- Other (describe) _____

10. Years of Education (check highest level completed):

- Completed_____ grade (indicate how far you went in school)
- High School Degree
- GED
- Some college credits
- College degree
- Graduate degree
- Other (describe)_____

11. What state are you from?_____

12. What county are you from (e.g., Logan, Wayne)?_____

13. What is the population of the town you live in?

- 100-2,000
- 2,100-10,000
- 11,000-20,000
- 21,000-50,000
- 51,000-100,000
- more than 100,000

14. Are you from a rural area?

- Yes
- No

FAGERSTROM SCALE (A)
(Appendix D)

1. How many minutes after you wake do you smoke your first cigarette? _____(min.)
2. How many cigarettes a day do you smoke? _____(#cig.)

For questions 3-6 please use the provided scale and write the number of your answer on the blank line to the right.

- 0 = No, never**
1 = Sometimes
2 = Most of the time
3 = Yes, always

3. Do you find it difficult to refrain from smoking in places where it is forbidden; e.g., in church, at the library, in cinemas, etc.? _____
4. Do you smoke more during the first 2 hours of your day than during the rest of the day? _____
5. Do you smoke if you are so ill that you are in bed most of the day? _____
6. When you are smoking, do you inhale? _____

For questions 7-8, please write your answer on the blank line below each question.

7. Which cigarette of the day would you most hate to give up?
 (please be specific) _____

8. a. What is your usual brand of cigarettes?
 Brand: _____

- b. Check off all the following that apply to your brand:
 _____regular _____menthol _____hard pack _____nonfiltered
 _____lights _____nonmenthol _____soft pack _____filtered
 _____ultralights _____kings _____100's _____120's

9. How old were you when you started regular daily cigarette smoking? _____
10. How many years, altogether, have you been a regular daily smoker? _____

PDS
(Appendix E)

Read each item carefully.

Put a checkmark next to **ALL** the events that have happened to you or that you have witnessed.

Part I

- (1.) _____ Serious accident, fire, or explosion (for example, an industrial, farm, car, plane, or boating accident)
- (2.) _____ Natural disaster (for example, tornado, hurricane, flood, or major earthquake)
- (3.) _____ Non-sexual assault by a **family member** or someone you know (for example, being mugged, physically attacked, shot, stabbed, or held at gunpoint)
- (4.) _____ Non-sexual assault by a **stranger** (for example, being mugged, physically attacked, shot, stabbed, or held at gunpoint)
- (5.) _____ Sexual assault by a **family member** or someone you know (for example, rape or attempted rape)
- (6.) _____ Sexual assault by a **stranger** (for example, rape or attempted rape)
- (7.) _____ Military combat or service in a war zone
- (8.) _____ Sexual contact when you were younger than 18 with someone who was 5 or more years older than you (for example, contact with genitals or breasts)
- (9.) _____ Imprisonment (for example, prison inmate, prisoner of war, hostage)
- (10.) _____ Torture
- (11.) _____ Life-threatening illness
- (12.) _____ Other traumatic event
- (13.) If you marked Item 12, specify the traumatic event below

Part 2

(14.) If you marked more than one traumatic event in Part 1, put a checkmark in the box below next to the event that **bothers you the most** or has **caused you the greatest amount of distress**. If you marked only one traumatic event in Part 1, make the same mark below.

- Accident
- Disaster
- Non-sexual assault/someone you know
- Non-sexual assault/stranger
- Sexual assault/someone you know
- Sexual assault/stranger
- Combat
- Sexual contact under 18 with someone 5 or more years older
- Imprisonment
- Torture
- Life-threatening illness
- Other

On the lines below, briefly describe the traumatic event you marked above.

Below are several questions about the traumatic event that has caused you the most distress:

(15.) How long ago did the traumatic event happen? (circle one)

- 1** Less than 1 month
- 2** 1 to 3 months
- 3** 3 to 6 months
- 4** 6 months to 3 years
- 5** 3 years to 5 years
- 6** More than 5 years

For the following questions, circle **Y** for Yes or **N** for No.

During this traumatic event:

- (16.) **Y** **N** Were you physically injured?
 - (17.) **Y** **N** Was someone else physically injured?
 - (18.) **Y** **N** Did you think that your life was in danger?
 - (19.) **Y** **N** Did you think that someone else's life was in danger?
 - (20.) **Y** **N** Did you feel helpless?
 - (21.) **Y** **N** Did you feel terrified?
-

Part 3

Read each one carefully and circle the number (0-3) that best describes how often that problem has bothered you IN THE PAST MONTH. Rate each problem with respect to the traumatic event that you and the researcher agreed upon.

- 0 Not at all or only one time**
1 Once a week or less/once in a while
2 2 to 4 times a week/ half the time
3 5 or time a week/almost always

- (22) **0 1 2 3** Having upsetting thoughts or images about the traumatic event that came into your head when you didn't want them to
- (23) **0 1 2 3** Having bad dreams or nightmares about the traumatic event
- (24) **0 1 2 3** Reliving the traumatic event, acting or feeling as if it was happening again
- (25) **0 1 2 3** Feeling emotionally upset when you were reminded of the traumatic event (for example, feeling scared, angry, sad or guilty, etc.)
- (26) **0 1 2 3** Experiencing physical reactions when you were reminded of the traumatic event (for example, breaking out in a sweat, heart beating fast)
- (27) **0 1 2 3** Trying not to think about, talk about, or have feelings about the traumatic event
- (28) **0 1 2 3** Trying to avoid activities, people, or places that remind you of the traumatic event
- (29) **0 1 2 3** Not being able to remember an important part of the traumatic event
- (30) **0 1 2 3** Having much less interest or participating much less often in important activities
- (31) **0 1 2 3** Feeling distant or cut off from people around you
- (32) **0 1 2 3** Feeling emotionally numb (for example, being unable to cry or unable to have loving feelings)
- (33) **0 1 2 3** Feeling as if your future plans or hopes will not come true (for example, you will not have a career, marriage, children, or a long life)
- (34) **0 1 2 3** Having trouble falling or staying asleep
- (35) **0 1 2 3** Feeling irritable or having fits of anger
- (36) **0 1 2 3** Having trouble concentrating (for example, drifting off in and out of conversations, losing track of a story on television, forgetting what you read)

(37) 0 1 2 3 Being overly alert (for example, checking to see who is around you, being uncomfortable with your back to a door, etc.)

(38) 0 1 2 3 Being jumpy or easily startled (for example, when someone walks up behind you)

(39) How long have you experienced the problems that you reported above? (circle one)

- 1 Less than 1 month
- 2 1 to 3 Months
- 3 More than 3 months

(40) How long after the traumatic event did these problems begin? (circle one)

- 1 Less than 6 months
- 2 6 or more months

Part 4

Indicate below if the problems you rated in Part 3 have interfered with any of the following areas of your life DURING THE PAST MONTH. Circle Y for Yes or N for No.

- (41) Y N Work
- (42) Y N Household chores and duties
- (43) Y N Relationships with friends
- (44) Y N Fun and Leisure activities
- (45) Y N Schoolwork
- (46) Y N Relationships with your family
- (47) Y N Sex Life
- (48) Y N General satisfaction with life
- (49) Y N Overall level of functioning in all areas of your life

CSS
(Appendix F)

We are interested in the help that you received from others following the most distressing event you described earlier. Please answer the questions that follow by circling the appropriate number from the scale below:

1	2	3	4	5	6	7
Never						Always

1. Whenever you wanted to talk, how often was there someone willing to listen just after the crisis?
1 2 3 4 5 6 7
2. Whenever you want to talk, how often is there someone willing to listen at the present time?
1 2 3 4 5 6 7
3. Did you have personal contact with other survivors or people with a similar experience just after the crisis?
1 2 3 4 5 6 7
4. Do you have personal contact with other survivors or people with a similar experience at the present time?
1 2 3 4 5 6 7
5. Were you able to talk about your thoughts and feelings just after the crisis?
1 2 3 4 5 6 7
6. Are you able to talk about your thoughts and feelings at the present time?
1 2 3 4 5 6 7
7. Were people sympathetic and supportive just after the crisis?
1 2 3 4 5 6 7
8. Are people sympathetic and supportive at the present time?
1 2 3 4 5 6 7
9. Were people helpful in a practical sort of way just after the crisis?
1 2 3 4 5 6 7
10. Are people helpful in a practical sort of way at the present time?
1 2 3 4 5 6 7

11. Did people you expected to be supportive make you feel worse at any time just after the crisis?

1 2 3 4 5 6 7

12. Do people you expect to be supportive make you feel worse at any time at the present time?

1 2 3 4 5 6 7

13. Overall, were you satisfied with the support you received just after the crisis?

1 2 3 4 5 6 7

14. Overall, are you satisfied with the support you are receiving at the present time?

1 2 3 4 5 6 7

RFS
(Appendix G)

Directions. Please answer each question this scale.

- 5 = Always
- 4 = Frequently
- 3 = Occasionally
- 2 = Seldom
- 1 = Never

1. I smoke cigarettes to stimulate me, to perk myself up _____
2. I've found a cigarette in my mouth and didn't remember putting it there _____
3. When I'm trying to solve a problem, I light up a cigarette _____
4. When I smoke a cigarette, part of the enjoyment is watching the smoke as I exhale it. _____
5. I am very much aware of the fact I am not smoking a cigarette _____
6. Part of the enjoyment of smoking comes from the steps I take to light up _____
7. When I feel "blue" or want to take my mind off cares and worries, I smoke cigarette _____
8. I smoke cigarettes automatically without even being aware of it _____
9. I smoke cigarettes in order to keep myself from slowing down _____
10. I get a real gnawing hunger for a cigarette when I haven't smoked for a while _____
11. When I feel uncomfortable or upset about something, I light up a cigarette _____
12. Handling a cigarette is part of the enjoyment of smoking it _____
13. Between cigarettes, I get a craving that only a cigarette can satisfy _____
14. I light up a cigarette when I feel angry about something _____
15. I light up a cigarette without realizing I still have one burning in the ashtray _____
16. I find cigarettes pleasurable _____
17. When I feel ashamed or embarrassed about something, I light up a cigarette _____

18. When I have run out of cigarettes, I find it almost unbearable until I get them _____
19. Few things help better than cigarettes when I'm feeling upset _____
20. I smoke cigarettes just from habit, without even really wanting the one I'm smoking _____
21. Smoking cigarettes is pleasant and relaxing _____
22. I do not feel contented for long unless I am smoking a cigarette _____
23. I smoke cigarettes to give me a "lift." _____

SPS
(Appendix H)

Instructions: In answering the following questions, think about your current relationships with friends, family members, co-workers, community members, and so on. Please indicate to what extent each statement describes your current relationships with other people. Use the following scale to indicate your opinion.

<u>STRONGLY DISAGREE</u>	<u>DISAGREE</u>	<u>AGREE</u>	<u>STRONGLY AGREE</u>
1	2	3	4

So, for example, if you feel a statement is very true of your current relationships, you would respond with a 4 (strongly agree). If you feel a statement clearly does not describe your relationships, you would respond with a 1 (strongly disagree).

	<u>Rating</u>
1. There are people I can depend on to help me if I really need it.	_____
2. I feel that I do not have close relationships with other people.	_____
3. There is no one I can turn to for guidance in times of stress.	_____
4. There are people who depend on me for help.	_____
5. There are people who enjoy the same activities as I do.	_____
6. Other people do not view me as competent.	_____
7. I feel personally responsible for the well-being of another person.	_____
8. I feel part of a group of people who share my attitudes and beliefs.	_____
9. I do not think other people respect my skills and abilities.	_____
10. If something went wrong, no one would come to my assistance.	_____
11. I have close relationships that provide me with a sense of emotional security and well-being.	_____
12. There is someone I could talk to about important decisions in my life.	_____
13. I have relationships where my competence and skill are recognized.	_____
14. There is no one who shares my interests and concerns.	_____
15. There is no one who really relies on me for their well-being.	_____

16. There is a trustworthy person I could turn to for advice if I were having problems. _____
17. I feel a strong emotional bond with at least one other person. _____
18. There is no one I can depend on for aid if I really need it. _____
19. There is no one I feel comfortable talking about my problems with. _____
20. There are people who admire my talents and abilities. _____
21. I lack a feeling of intimacy with another person. _____
22. There is no one who likes to do the things I do. _____
23. There are people who I can count on in an emergency. _____
24. No one needs me to care for them. _____

THQ
(Appendix L)

The following is a series of questions about serious or traumatic life events. These types of events actually occur with some regularity, although we would like to believe they are rare, and they affect how people feel about, react to, and/or think about things subsequently. Knowing about the occurrence of such events, and reactions to them, will help us to develop programs for prevention, education, and other services. The questionnaire is divided into questions covering crime experiences, general disaster and trauma questions, and questions about physical and sexual experiences.

For each event, please indicate whether it happened, by circling yes or no, and if it did, the number of times and your approximate age when it happened (give your best guess if you are not sure). Also note the nature of your relationship to the person involved, and the specific nature of the event, if appropriate.

Crime-Related Events

		<u>If Yes</u>	
		# of Times	Approx. Age
1.	Has anyone ever tried to take something directly from you by using force or the threat of force, such as a stick-up or mugging?	No Yes	_____ _____
2.	Has anyone ever attempted to rob you or actually robbed you (i.e. stolen your personal belongings)?	No Yes	_____ _____
3.	Has anyone ever attempted to or succeeded in breaking into your home when you weren't there?	No Yes	_____ _____
4.	Has anyone ever tried to or succeeded in breaking into your home while you <u>were</u> there?	No Yes	_____ _____

General Disaster and Trauma

5.	Have you ever had a serious accident at work, in a car or somewhere else? <u>If yes</u> , please specify	No Yes	_____ _____
----	---	----------	---------------

If Yes

			# of Times	Approx. Age
6.	Have you ever experienced a natural disaster such as a tornado, hurricane, flood, major earthquake, etc., where you felt you or your loved ones were in danger of death or injury? <u>If yes</u> , please specify	No Yes	_____	_____
<hr/>				

7.	Have you ever experienced a "man-made" disaster such as a train crash, building collapse, bank robbery, fire, etc., where you felt you or your loved ones were in danger of death or injury? <u>If yes</u> , please specify	No Yes	_____	_____
----	--	--------	-------	-------

			# of Times	Approx. Age
8.	Have you ever been exposed to dangerous chemicals or radioactivity that might threaten your health?	No Yes	_____	_____

9.	Have you ever been in any other situation in which you were seriously injured? <u>If yes</u> , please specify	No Yes	_____	_____
<hr/>				

10.	Have you ever been in any other situation in which you feared you <u>might</u> be killed or seriously injured? <u>If yes</u> , please specify	No Yes	_____	_____
<hr/>				

11.	Have you ever seen someone seriously injured or killed? <u>If yes</u> , please specify who	No Yes	_____	_____
<hr/>				

		<u>If Yes</u>			
		# of Times	Approx. Age		
12.	Have you ever seen dead bodies (other than at a funeral) or had to handle dead bodies for any reason? <u>If yes, please specify</u> <hr/>	No	Yes	_____	_____
13.	Have you ever had a close friend or family member murdered, or killed by a drunk driver? <u>If yes, please specify</u> relationship (e.g.mother, grandson,etc.) <hr/>	No	Yes	_____	_____
14.	Have you ever had a spouse, romantic partner, or child die? <u>If yes, please specify</u> relationship <hr/>	No	Yes	_____	_____
15.	Have you ever had a serious or life-threatening illness? <u>If yes, please specify</u> <hr/>	No	Yes	_____	_____
16.	Have you ever received news of a serious injury, life-threatening illness or unexpected death of someone close to you? <u>If yes, please indicate</u> <hr/> <hr/>	No	Yes	_____	_____
17.	Have you ever had to engage in combat while in military service in an official or unofficial war zone? If yes, please indicate where. <hr/>	No	Yes	_____	_____

Physical and Sexual Experiences

		<u>If Yes</u>	
		Was it repeated?	Approx. how often & what Age(s)
18.	Has anyone ever made you have intercourse, oral or anal sex against your will? If yes, please indicate nature of relationship with person (e.g. stranger, friend, relative, parent, sibling) _____	No	Yes
		_____	_____
19.	Has anyone ever touched private parts of your body, or made you touch theirs, under force or threat? If yes, please indicate nature of relationship with person (e.g. stranger, friend, relative, parent, sibling) _____	No	Yes
		_____	_____
20.	Other than incidents mentioned in Questions 18 and 19, have there been any other situations in which another person tried to force you to have unwanted sexual contact?	No	Yes
		_____	_____
21.	Has anyone, including family members or friends, ever attacked you with a gun, knife or some other weapon?	No	Yes
		_____	_____
22.	Has anyone, including family members or friends, ever attacked you <u>without</u> a weapon and seriously injured you?	No	Yes
		_____	_____
23.	Has anyone in your family ever beaten, "spanked" or pushed you hard enough to cause injury?	No	Yes
		_____	_____

Please respond to this questionnaire if you have dated someone for 3 months or longer, during the past 12 months.

(CTS-2)

Appendix J

No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, want different things from each other, or just have spats or fights because they are in a bad mood, tired, or for some other reason. This is a list of things that might happen when you have differences. Please circle how many times your partner did each of these things in the past twelve months. If you didn't experience these things in the past 12 months, but have experienced them before, please circle "7."

How often did this happen?

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

- | | |
|---|-----------------|
| 1. My partner showed he cared even though we disagreed. | 1 2 3 4 5 6 7 8 |
| 2. My partner insulted or swore at me. | 1 2 3 4 5 6 7 8 |
| 3. My partner explained his side of a disagreement to me. | 1 2 3 4 5 6 7 8 |
| 4. My partner threw something at me that could hurt. | 1 2 3 4 5 6 7 8 |
| 5. My partner twisted my arm or hair. | 1 2 3 4 5 6 7 8 |
| 6. I had a sprain, bruise, or small cut because of a fight with my partner. | 1 2 3 4 5 6 7 8 |
| 7. My partner showed respect for my feelings about an issue. | 1 2 3 4 5 6 7 8 |
| 8. My partner made me have sex without a condom. | 1 2 3 4 5 6 7 8 |
| 9. My partner shoved or pushed me. | 1 2 3 4 5 6 7 8 |
| 10. My partner used force (like hitting, holding down, or using a weapon) to make me have oral or anal sex. | 1 2 3 4 5 6 7 8 |
| 11. My partner used a knife or gun on me. | 1 2 3 4 5 6 7 8 |

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

- 12. I passed out from being hit on the head by my partner in a fight. 1 2 3 4 5 6 7 8
- 13. My partner called me fat or ugly. 1 2 3 4 5 6 7 8
- 14. My partner punched or hit me with something that could hurt. 1 2 3 4 5 6 7 8
- 15. My partner destroyed something that belonged to me. 1 2 3 4 5 6 7 8
- 16. I went to the doctor because of a fight with my partner. 1 2 3 4 5 6 7 8
- 17. My partner choked me. 1 2 3 4 5 6 7 8
- 18. My partner shouted or yelled at me. 1 2 3 4 5 6 7 8
- 19. My partner slammed me against the wall. 1 2 3 4 5 6 7 8
- 20. My partner was sure we could work out a partner. 1 2 3 4 5 6 7 8
- 21. I needed to see a doctor because of a fight with my partner,
but my partner was not hurt. 1 2 3 4 5 6 7 8
- 22. My partner beat me up. 1 2 3 4 5 6 7 8
- 23. My partner grabbed me. 1 2 3 4 5 6 7 8
- 24. My partner used force (like hitting, holding down,
(or using a weapon) to make me have sex. 1 2 3 4 5 6 7 8
- 25. My partner stomped out of the room or house or yard during
a disagreement. 1 2 3 4 5 6 7 8
- 26. My partner insisted on sex when I didn't want to (but I did, so I
would not be physically forced) 1 2 3 4 5 6 7 8
- 27. My partner slapped me. 1 2 3 4 5 6 7 8
- 28. I had a broken bone from a fight with my partner. 1 2 3 4 5 6 7 8

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

- 29. My partner used threats to make me have oral or anal sex. 1 2 3 4 5 6 7 8
- 30. My partner suggested a compromise to a disagreement. 1 2 3 4 5 6 7 8
- 31. My partner burned or scalded me on purpose. 1 2 3 4 5 6 7 8
- 32. My partner insisted I have oral or anal sex
(but did not use physical force). 1 2 3 4 5 6 7 8
- 33. My partner accused me of being a lousy lover. 1 2 3 4 5 6 7 8
- 34. My partner did something to spite me. 1 2 3 4 5 6 7 8
- 35. My partner threatened to hit or throw something at me. 1 2 3 4 5 6 7 8
- 36. I felt physical pain that still hurt the next day because of a
fight with my partner. 1 2 3 4 5 6 7 8
- 37. My partner kicked me. 1 2 3 4 5 6 7 8
- 38. My partner used threats to make me have sex. 1 2 3 4 5 6 7 8
- 39. My partner agreed to try a solution that I suggested. 1 2 3 4 5 6 7 8

CURRICULUM VITAE

Amanda S. Adams, M.A.
(Revised August, 2006)

PERSONAL INFORMATION

HOME

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EDUCATIONAL INFORMATION

Doctoral Student-Degree Expected August, 2006

Marshall University
Huntington, WV 25755
Program: Doctor of Psychology, Rural Emphasis

Master of Arts-December 2002

Marshall University
Huntington, WV 25755
Program: Clinical Psychology

Bachelor of Arts-May 2000

Marshall University
Huntington, WV 25755
Major: Psychology

UNDERGRADUATE AWARDS AND HONORS

- Dean's List: All semesters
- Psi Chi National Honor Society, 1998-2000
- Graduated Cum Laude 2000

GRADUATE AWARDS AND HONORS

- Madeline Feil Scholarship 2001-2004
 - Sandra and John Boyle Dissertation Scholarship 2004
 - Quinlan Endowment Research Award 2004
-

PROFESSIONAL SOCIETY MEMBERSHIPS

- American Psychological Association
- Appalachian Studies Association
- West Virginia Psychological Association
- Association of the Advancement of Behavior Therapy
Child Maltreatment and Interpersonal Violence Special Interest Group

UNIVERSITY & DEPARTMENTAL COMMITTEES & COMMUNITY SERVICE

Marshall University

- American Psychological Association of Graduate Students (APAGS) Campus Representative for Marshall University, 2004
- Admissions Committee-- Doctoral Program, 2002- 2004
-

Community Service

- 2004-2005, West Virginia Coalition against Domestic Violence research committee
- 2002-present Red Cross Disaster Relief Volunteer
- 1997-2003 Big Sister, Big Brothers, Big Sisters of the Tri-State
- 1998-1999 Camp Counselor, We Can Camp for Abused and Neglected Children
- Summer 1999 Energy Express, Reading Tutor

Courses Taught

Marshall University 2001-2004

Introductory Psychology

I taught an undergraduate course exploring the fundamentals of psychology (10 sections total).

Marshall University Community and Technical College, 2002

Life-Span Development

I taught an undergraduate course examining the nature of human development through exploration of important developmental issues

RESEARCH EXPERIENCE

2002-2005 Interpersonal Violence Research and Prevention Laboratory

Research Assistant

Participation in all phases of data collection, entry, and analyses on a research protocol investigating the psychological consequences of interpersonal violence and traumatic event exposure among young adults. Developed original research projects investigating the phenomenology of IPV among rural women.

2004-2006 Rural Appalachian Infant Temperament Project

Research Associate

Assisted in a longitudinal research project examining socioemotional and cognitive development of rural adolescents and children. Participated in data collection, analyses and dissemination.

CLINICAL EXPERIENCE/CONSULTATION

CONSULTATION

Southwestern Community Action Council, Head Start Program 2000-2001

- I observed and evaluated classrooms, teachers and children.
- Consulted with parents and teachers about children with behavior problems.
- Designed plans and ways to improve problems in the classroom.

CLINICAL EXPERIENCE

Internship

East Kentucky Rural Psychology Internship –APA Approved (2005-2006)

Appalachian Regional Hospital Psychiatric Center

- Provided individual and group therapy in an inpatient setting
- Conducted psychological assessment and ER triage evaluations

Kentucky River Community Care

- Provided individual psychotherapy and psychological assessments
- Provided crisis services

Employment

Insight Psychological and Counseling Services, 2004-2005

- Provided individual and family therapy in a rural private practice
- Conducted psychological assessments

Prestera Center for Mental Health 2003-2004

- Provided individual and family therapy in a school-based setting
- Conducted psychological assessment
- Conducted outpatient intakes

Associates in Psychology and Therapy, 2003

- Contracted with a local group home to provide individual and family therapy to incorrigible adolescent males
- Consulted with professional staff and made treatment recommendations for patients

Practica

Mildred Mitchell-Bateman Hospital, 2003

- Provided acute service delivery, including crises intervention and psychotherapy
- Provided assessment and treatment of adults with severe mental illness
- Functioned as a member of a multidisciplinary team

University Psychiatric Associates

Marshall University School of Medicine, 2002-2003

- Conducted outpatient intakes
- Provided assessment and therapy on an outpatient basis
- Conducted psychological testing
- Participated to hospital consultation for pediatric oncology patients

Marshall University Psychology Clinic, 2001-2002

- Completed intakes with diverse clients
- Developed and implemented individual treatment plans
- Conducted therapy with college population which included individual and couples therapy
- Completed integrated intellectual, achievement, and personality assessments for children and adults to determine eligibility for learning disability services.

River Park Hospital, 1999

- Facilitated group therapy with adolescent sex-offenders
- Provided direct care to child and adolescent inpatients

GRANT WRITING ACTIVITIES

Adams, A. *Intimate Partner Violence and Posttraumatic Stress Disorder: Risk and Protective Factors among Rural Women* (October, 2004). Woodrow Wilson Dissertation Grants in Women's Studies and Women's Health (\$6,000, unfunded).

Adams, A. & Booth. *Project to Promote Oral Health Behaviors among Wayne County Students* (April, 2004). Sisters of Saint Joseph Health and Wellness Foundational Grant for School Based Health Initiatives (\$1,000 funded, July 2004).

Funding matched by Wal-Mart Stores (September, 2004).

PROFESSIONAL PRESENTATIONS

Adams, A. & Adams, N. (2006, March). Intimate Partner Violence and Rural Women. In M. J. Amerikaner (Chair), *Psychological and Behavioral Health Issues in Appalachia*. Symposium presented at the 29th Annual Meeting of the Appalachian Studies Association, Dayton, OH.

Nolan, J., **Adams, A.**, Davidov, D., West, H., Strange C., Fauber, A., Harmon, D., Miller, M., Cole, C., & Lewis S. (2005, March). History, limitations and advantages of research in rural Appalachia. In S. Lewis (Chair), *Health in Rural Appalachia: Building Bridges that promote Physical, Psychological, and Spiritual Health*. Symposium presented at the 28th Annual Appalachian Studies Association Conference, Radford, VA.

Lewis, S.F., Feldner, M.T & **Adams, A.** (November, 2004). *Anxiety Sensitivity as a Moderator of the Relation Between Trauma Exposure and Posttraumatic Stress Symptomatology*. Poster presented at the Annual International Society for Traumatic Stress Studies, New Orleans, LA.

- Nolan, J., **Adams, A.**, Fauber, A., Lewis, S. (2004, October). Difficulties facing rural women. In **A. Adams** (Chair), *Intimate Partner Violence in Rural Appalachia: Health Outcomes and Barriers to Service Utilization*. Symposium presented at the 6th Annual Women of Appalachia Conference, Zanesville, OH.
- Adams, A.**, Sizemore, D., & Lewis S.F. (2004, October). The extent and consequences of Intimate Partner Violence in Southern West Virginia: Findings from a primary care sample. In **A. Adams** (Chair), *Intimate Partner Violence in Rural Appalachia: Health Outcomes and Barriers to Service Utilization*. Symposium presented at the 6th Annual National Conference of the Women of Appalachia, Zanesville, OH.
- Nolan, J., Fauber, A., **Adams, A.**, Hunt, A., & Lewis, S. (2004, October) *Traumatic event exposure in Higher Education; Does residential status increase risk or buffer against stressful events?* Poster presentation at The U.S. Department of Education's 18th Annual National Meeting on Alcohol and Other Drug Abuse and Violence Prevention in Higher Education, Washington D.C.
- Adams, A.** & Rork, K. (2004, September). *Prescription privileges for psychologists: A novel idea or detrimental to the profession*. Symposium presented at the Fall Conference of the West Virginia Psychological Association, Clarksburg, WV.
- Adams, A.**, Nolan, J., Fauber A. & Lewis, S.F. (2004, September). *Intimate Partner Violence and Rural Women: Prevalence, Topography and Psychological Sequelae*. Poster presented at the Fall Conference of the West Virginia Psychological Association, Clarksburg, WV.
- Adams, A.**, Lewis, S. F., Hunt, A., & Fauber, A. (2004, March). Intimate partner violence in rural women. In M. J. Amerikaner (Chair), *Psychological and Behavioral Health Issues in Appalachia*. Symposium presented at the 27th Annual Meeting of the Appalachian Studies Association, Cherokee, NC.
- Adams, A.** & Lewis, S.F. (2003, October). *Risk and Protective Factors for Posttraumatic Stress Disorder among Victims of Intimate Partner Violence*. Poster presented at the 1st annual meeting of University of Kentucky's National Research Agenda on Violence against Women conference, Lexington, KY.
- Lewis, S. F., & **Adams, A.** (2003, October). *Help-seeking in Victims of Intimate Partner Violence: Variables that engender and obstruct service utilization*. Poster presented at the 1st annual meeting of University of Kentucky's National Research Agenda on Violence against Women conference, Lexington, KY.
- Adams, A.** & Wyatt, W.J. (2000, May). Twenty years of Behavior Analysis Digest: Special Index. Poster presented at the annual conference of the Association for Behavior Analysis, Washington, D.C.
-

PUBLICATIONS

Adams, A. (2004). Treating Obesity in a Rural Primary Care Setting. Rx: Behavioral Techniques. *Behavior Analysis Digest*, 16(1) p. 4

WORKS IN PROGRESS AND MANUSCRIPTS IN PREPARATION

Adams, A., & Fish, M. (Doctoral Dissertation- in preparation). Intimate partner violence and posttraumatic stress disorder: Risk factors among rural women.

Adams, A., & Fish, M. (manuscript in preparation). Behavior and emotional problems among rural Appalachian children: Predictors of stability and change.

Personal and Professional References Available Upon Request