

FACTORS INFLUENCING INTIMATE PARTNER VIOLENCE SCREENING BY  
RURAL TEXAS EMERGENCY ROOM NURSES

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## ABSTRACT

CHRISTINE HEADY

### FACTORS INFLUENCING INTIMATE PARTNER VIOLENCE SCREENING BY RURAL TEXAS EMERGENCY ROOM NURSES

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Intimate partner violence (IPV) is a prevalent and concerning health issue with associated poor health outcomes. The primary purpose of this quantitative study was to determine if attitudes (intrapersonal and social) and emergency room practice (environmental) factors influence screening for IPV by rural emergency room (ER) registered nurses (RN) and Licensed Vocational Nurses (LVN). Limited research exists about factors influencing IPV screening in rural nurses. An anonymous cross-sectional survey design was utilized to administer the Health Care Provider Survey (HCPS) of IPV Attitudes and Practices and the subscale Domestic Chores Domestic Life Domain (DCDLD) from the Gender Equitable Male (GEM) scale via a survey link to Psychdata. There were one hundred and five rural emergency room nurses in Texas who participated.

The data analysis included a descriptive analysis of the variables using means, standard deviations, and ranges of scores for the continuous variables of preparedness, self-confidence, professional supports, abuse inquiry, nurse consequences for asking, comfort following disclosure, nurse lack of control, and nurse practice pressures.

Multiple linear regression was used to predict the relationship of social, environmental, and geographical influences with rural nurse IPV screening. In this study the hypothesized independent variable, Age Group was determined to be a statistically significant predictor of Professional Support. The Highest Degree Earned was a significant predictor of scores for Preparedness, Self-confidence, Comfort Following Disclosure, and Practice Pressures. The Type of Nurse significantly predicted scores for Preparedness, Self-confidence, and Comfort Following Disclosure. The Type of ER was a significant predictor of Comfort Following Disclosure and Professional Support. Experience with Abuse Disclosures significantly predicted scores for Preparedness, and Formal Training about IPV significantly predicted scores for Preparedness, Self-Confidence, Practitioner Lack of Control, Comfort Following Disclosure, Professional Support, and Practice Pressures. Thus, this study provided valuable insight as to where health education needs to be focused and the barriers rural Texas ER nurses encounter.

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## CHAPTER I

### INTRODUCTION

Intimate partner violence (IPV) is a prevalent issue affecting 1 in 3 women in the United States (Centers for Disease Control and Prevention [CDC], 2013). While the prevalence of IPV in rural areas is not different than in urban areas, IPV victims in rural areas experience increased severity of abuse (Breiding, Ziembroski, & Black, 2009; Krishnan, Hilbert, & Pase, 2001; Murty et al., 2003; Peek-Asa et al., 2011; Rennison, DeKeseredy, & Dragiewicz, 2013). Rural residents also have an increased risk of IPV from immediate family members and casual or well-known acquaintances when compared to urban and suburban residents (Bureau of Justice Statistics [BJS], 2012). Although living in a rural area may serve as a significant barrier for IPV victims to report abuse, limited studies exist documenting rural IPV victim experiences (Hughes, 2010; Murty et al., 2003; Peek-Asa et al., 2011). The CDC (2014) reported 31.5% of IPV victims experienced physical violence, 9.2% experienced severe violence, and 47.1% experienced psychological aggression. In addition, the Texas Department of Public Safety (2016) reported 34% of IPV victims experienced minor injuries and 5% experienced major injuries.

A study conducted by researchers from the University of Texas at Austin reported over 3 million adult female Texans have experienced IPV during their lifetime (Busch-

Armendariz, Heffron, & Bohman, 2011). In 2015, there were 211,301 IPV victims in Texas and 72% of those were female (Texas Department of Public Safety (TXDPS), 2016). Of these victims most were within the 20-24yearold age bracket and for those whose race was known the IPV victims were 72% White, 27% Black, and 1% were American Indian, Alaskan Native, Asian, or Native Hawaiian/ Hawaiian/ Another Pacific Islander (TXDPS, 2016). In Texas, fifty percent of the women feel like the state is not doing enough to help IPV victims and 97% of women think they should have access to support services (Busch-Armendariz, et. al, 2011). Thus, IPV is a prevalent and concerning problem in Texas and more research in this area is needed.

### **Statement of the Purpose**

The primary purpose of this quantitative study was to determine if attitudes (intrapersonal and social) and emergency room practice (environmental) factors influence screening for IPV by rural emergency room (ER) registered nurses (RN) and Licensed Vocational Nurses (LVN). Additionally, the effect of descriptive variables (age, gender, race/ethnicity, education, length of practice, length of rural ER practice, employment status, type of hospital, prior training on IPV, prior experience with patient reported IPV) on preparedness, self-confidence, practitioner lack of control, comfort following disclosure, professional support, practice pressures, abuse inquiry, and practitioner consequences of inquiry was assessed.

### **Research Question**

What intrapersonal and professional practice factors influence screening for IPV by rural Texas ER registered and licensed vocational nurses?

### **Null Hypotheses**

1. Descriptive variables (age, gender, race/ethnicity, education, length of practice, length of rural ER practice, employment status, type of hospital, prior training on IPV, prior experience with patient reported IPV) and attitudes toward gender norms in intimate relationships such as a mother's responsibility in childcare, woman's role in the household, husband decision making in purchases of household items, and woman's obedience of her husband (Domestic Chores and Daily Life Domain (DCDLD) subscale of the Gender Equitable Men (GEM) scale) will have no significant effect on total score and subscale scores on the Health Care Provider Survey (HCPS) of IPV Attitudes and Practices (preparedness, self-confidence, practitioner lack of control, comfort following disclosure, professional supports, practice pressures, abuse inquiry, practitioner consequences of inquiry) (Gutmanis, Beynon, Tutty, Wathen, & MacMillan, 2007; Nanda, 2011).
2. Descriptive variables (age, gender, race/ethnicity, education, length of practice, length of rural ER practice, employment status, type of hospital, prior training on IPV, prior experience with patient reported IPV) and attitudes toward gender norms in intimate relationships such as a mother's responsibility in childcare,

woman's role in the household, husband decision making in purchases of household items, and woman's obedience of her husband (Domestic Chores and Daily Life Domain (DCDLD) subscale of the Gender Equitable Men (GEM) scale) will have significant effect on total score and subscale scores on the Health Care Provider Survey (HCPS) of IPV Attitudes and Practices (preparedness, self-confidence, practitioner lack of control, comfort following disclosure, professional supports, practice pressures, abuse inquiry, practitioner consequences of inquiry) (Gutmanis, et. al, 2007; Nanda, 2011).

### **Delimitations**

This study includes the following delimitations:

1. Participants must be Texas Registered Nurses or Texas Licensed Vocational Nurses working in a rural Texas hospital ER for greater than 1 year.
2. Participants are able to read and write English.
3. Participants must work in a rural ER as defined by the American Hospital Association.

### **Limitations**

This study includes the following limitations:

1. This study uses a convenience sample with voluntary participants, therefore, results cannot be generalized to all rural nurses in the United States or abroad.

2. This study is cross sectional and only captures the data during one point in time.
3. The responses in this study are self-reported and subjective in nature.

### **Assumptions**

The following assumptions are made:

1. The participants are honest and answer to the best of their ability.
2. All of the participants read and write English.
3. All of the participants understand the terminology used in the data collection instrument.

### **Definition of Terms**

The following defines the terms used within this study:

1. **Intimate Partner Violence (IPV)** - physical, sexual, or psychological abusive acts committed by an intimate partner which can be defined as a boyfriend, girlfriend, husband, wife, or partner (Bureau of Justice Statistics [BJS], 2012).
2. **Rural Hospital as defined by the American Hospital Association** - have 100 or fewer beds, 4,000 or fewer admissions a year, and located outside a Metropolitan Statistical Area (American Hospital Association, 2016).
3. **Social Influences** – influences from leaders, legal professionals, or law enforcement in the community, social norms, cultural norms, safety concerns.

4.     **Environmental Influences** - hospital support of IPV screening, availability of IPV training, electronic medical record requirements for IPV screening, state laws, professional support.
5.     **Geographical Influences** – isolation, limited access to resources and shelters, close relationships within communities, limited referral sources or access to counselors.

### **Importance of the Study**

There is limited research about factors influencing IPV screening in rural nurses. Research has indicated IPV victims want to disclose their experiences with abuse (Glass, Dearwater, & Campbell, 2001; Kramer, Lorenzon, & Mueller., 2004). IPV victims in rural areas experience an increased severity of abuse and health risks associated with abuse. (Annan, 2008; Peek-Asa et al., 2011; Sandberg, 2013). Research investigating the intrapersonal and professional practice factors influencing rural nurse screening for IPV will allow the development of health education strategies to address key factors inhibiting IPV screening and therefore increase the likelihood IPV victims will receive timely referral to appropriate resources. Early intervention is imperative to decrease IPV and the long term consequences to physical and mental health (United States Preventive Services Task Force, 2013).



## CHAPTER II

### LITERATURE REVIEW

Intrapersonal, environmental, and social factors have varying influence on nurse IPV screening attitudes and practices. The feminist perspective and social cognitive theory provide a theoretical basis for examination of factors influencing IPV screening. Research studies concerning rural nurses IPV screening are scarce. Consequently, studies in other areas outside of the rural ER were incorporated into the literature review to establish the overall scope of the problem with IPV. IPV has significant social, economic, and health implications that burden both the healthcare system and the victim. Barriers to IPV screening exist for both victims and nurses that influence patient centered care and IPV victim health outcomes. Early intervention and nurse education appear to mitigate these outcomes. Thus, this literature review will provide a foundation for reasons why performing further research in the area of rural nurse IPV screening influences is imperative.

#### **Feminist Theoretical Perspective**

The feminist theory contends society is patriarchal and social institutions are primarily male dominated (Oxford Bibliographies, 2016). The main constructs of feminist theory include oppression, patriarchy, and gender inequality that were rooted in Marxism (Oxford Bibliographies, 2016). The Stanford Encyclopedia of Philosophy (2015) defined feminism as an unfair disadvantage over women and a disregard of rights or respect when compared to men (oppression). In addition, patriarchy is defined as male

dominance in society and gender inequality is defined as more than just sexism; including economic discrimination and devaluation of women's social contributions to society (Stanford Encyclopedia of Philosophy, 2015).

It is important to consider the feminist theoretical perspective when examining the reasons rural nurses may or may not screen for IPV. Attitudes about women's roles within rural communities may influence how a rural nurse perceives the likelihood of IPV being an issue within their own community. Furthermore, how rural communities respond to IPV can be influenced by patriarchal views of women's role within the community (Dekeseredy, 2015; Websdale, 1995). Several researchers have used feminist theories to explain or predict factors influencing personal support, economic class, and stereotypical behaviors (Bosch & Bergan, 2006; Riddell, Ford-Gilboe, & Leipert, 2009; Sandberg, 2013). These factors have been reported to negatively impact nurse IPV screening and help-seeking behaviors of IPV victims leading to limited access to beneficial services (Bosch & Bergan, 2006; Olive, 2007; Riddell et al., 2009; Sandberg, 2013).

Several researchers have reported rural areas have increased patriarchal attitudes and experience more traditionalism or stereotypical behavior, which in turn oppresses women and increases their risk of IPV (Riddell, et al., 2009; Sandberg, 2013). One researcher looked at 12,092 cases of personal victimizations of violent acts in women and men and found women to be more likely to be victims of IPV than other types of violence, which was consistent with a feminist perspective of male dominance (Warner,

2010). Another ethnographic study that interviewed 85 battered women found patriarchal attitudes in a rural area influenced local law enforcement and personal relationships with abusive men, which compromised support of the women (Websdale, 1995).

### **Social Cognitive Theoretical Perspective**

The theoretical perspective of positivism includes empiricism and verificationism (Audi, 1999). The empiricists associated positivism with the verification of the world by experience or observation (Audi, 1999). Literature concerning nurse IPV screening linked the objective identification of specific barriers and identification of specific experiences of nurses as influences of IPV screening. The self-efficacy construct of the social cognitive theory is the confidence to complete an action and overcome barriers (Bandura, 1977; National Cancer Institute, 2005, p. 20). Several studies used Bandura's social cognitive theory as a theoretical basis for barriers to nurse IPV screening. The concepts of the social cognitive theory relative to this study include reciprocal determinism (environmental influences on individuals or groups), self-efficacy, and facilitation (providing resources/environmental changes) (McAlister, Perry, & Parcel, 2008). Although all concepts played a role in nurse IPV screening, self-efficacy was central in influencing nurse IPV screening. Self-efficacy has been found to be a factor in rural nurse IPV screening practices (Hamberger et al., 2004; Hollingsworth & Ford-Gilboe, 2006). The three factors influencing self-efficacy are personal behaviors, environmental influences, and cognitive factors (Bandura, 1982).

Bandura (1989) posited that self-efficacy contained three motivating processes. The first being a cognitive thought process that gives individuals a method to predict events and control their lives. This cognitive process was more successful in those whom have a high self-efficacy (and perceived increased problem-solving abilities). The second being the motivational process of self-efficacy. This process depends upon an individual's beliefs in his or her own capabilities and the ability to persevere in difficult challenges. Those with positive motivational attitudes were more likely to complete the challenging activity. The third process is the affective process of motivation. This process is an individual's response to stressors and depression when experiencing difficult situations. Individuals with less anxiety and fear tend to be more successful. Bandura (1989) suggested that giving individuals skills to manage their motivations, one could increase success. According to the social cognitive theory (SCT), social factors, environmental factors, and self-efficacy are intertwined and influence a person's behavior (Bandura, 1989). Reciprocal determinism influences whether a behavior is performed and contends that a person, their behavior, and the environment are reciprocal factors that hold influence over each other (Bandura, 1989).

### **Costs of Intimate Partner Violence**

The CDC (2003) reported that in 1995, 486,151 females in the United States visited the emergency department for rape or physical injuries resulting from IPV. There was also 4,773,037 IPV victimizations reported during that time period. Based on this information the 2003 updated costs from the IPV related ER visits was estimated to be

8.3 billion dollars. Healthcare needs can continue for up to 15 years after the person has been victimized causing costs to continue over time (CDC, 2003). Studies about IPV and health care utilization confirm the substantial costs of caring for IPV victims.

In one study, Davidov, Larrabee, and Davis (2015) looked at a sample of 2006-2009 national emergency room department visits and found 112,664 emergency room visit codes for battered spouses. Women comprised ninety three percent of the victims. The outpatient ER visit costs averaged \$1,904.69. Of the sample population, five percent were hospitalized and the cost averaged \$27,068.00. In this particular study, the southern United States had a significantly larger population of IPV victims. Bonomi, Anderson, Rivara, and Thompson (2009) looked at 3,333 metropolitan victims and found significant costs associated with both physical and non-physical IPV when compared to non-IPV victims. The mental healthcare costs and utilization were the highest among IPV victims when compared to non-victims, especially if the victims had ongoing abuse. Bonomi et al. (2009) also found physically abused IPV victims used the ER 42% more often than non-victims. Non-physically abused women used the ER 33% more often than non-abused victims. Thus, the increased utilization of both mental health and ER visits contributes to significant cost burden to communities.

### **Health Risks for Intimate Partner Violence Victims**

The 2010 National Intimate Partner and Sexual Violence Survey reported 10 million intimate partners a year are physically abused, equating to 20 people a minute (Black et al., 2011). A statewide prevalence study of intimate partner violence was

conducted by Busch-Armendariz, Heffron and Bohman (2011) and female IPV victims in Texas reported psychological abuse (55.7%), coercive control and entrapment (55.6%), physical violence (46.5%), stalking (41%), and sexual violence (14.5%). Of the women in the study, twenty-five percent reportedly contracted an STD and 22% became pregnant as a result of forced sexual activity (Busch-Armendariz et al., 2011). In addition, pregnant women are at increased risk for abuse and it is not uncommon for abuse to escalate during pregnancy (Agency for Healthcare Research and Quality, 2015).

Abuse has many forms. The top three types of abuses included threats of physical harm, being slammed against something, and being choked, strangled, or suffocated (Busch-Armendariz, et. al, 2011). Of the female IPV victims, thirty-six percent reported physical injuries as a result of the IPV (Busch-Armendariz et al., 2011). The Texas DPS (2016) reported the majority of family violence offenses are assault and 53% of the injuries reported are minor, 5% are major injuries and 42% did not sustain a physical injury at the time law enforcement responded. The major injuries reported included broken bones, severe lacerations, loss of consciousness, internal injuries, loss of teeth, and other major injuries (TXDPS, 2016). According to the Texas Council on Family Violence (TCFV), (2017), in 2016 alone 146 women were killed by a male intimate partner in Texas.

Health issues related to IPV include physical ailments and stressors leading to chronic health problems such as asthma, reproductive issues, psychological issues, social issues, and high-risk behaviors (CDC, 2017b). Fibromyalgia, irritable bowel syndrome,

chronic pain, sexual dysfunction, pregnancy complications, depression, and anxiety are some of the other chronic health issues associated with IPV (CDC, 2017b). Other issues such as antisocial behavior, social isolation, illicit drug abuse, alcoholism, and high risk sexual behaviors are also health consequences (CDC 2017b). Breiding, Black, and Ryan (2008) administered an IPV module within the Behavioral Risk Factor Surveillance System (BRFSS) to 70,000 women in 16 states and found the IPV victims were more likely to have joint disease, asthma, decrease in activity, risk factors for HIV, be a smoker, binge drink or overconsume alcohol and not have contact with a health care provider over the last one-year period. The National Intimate Partner and Sexual Violence Survey summary report in 2010 also found increased incidence in some of the same conditions reported by other researchers (Black et al., 2011). There was an increased prevalence in asthma (23.7% higher), irritable bowel syndrome (12.4% higher), frequent headaches (28.7% higher), and chronic pain (29.8% higher). Additionally, there was a 35% increase in activity limitations, 37.7% reported difficulty sleeping and 3.4% more IPV victims felt they had poor mental health. Thus, the chronic health problems associated with IPV victimization are noteworthy.

### **Rural Intimate Partner Violence Health Risks**

Rural women experiencing IPV have increased health risks such as suicide, depression, post-traumatic stress disorder, anxiety, drug abuse, fetal death, and low birth weight infants as result of the abuse (Afifi, Henrickson, Asmundson, & Sareen, 2012; Annan, 2008; CDC, 2015; Karakurt, Smith, & Whiting, 2014; Krishnan, Hilbert, & Pase,

2001; Pico-Alfonso et al., 2006). One study of 177 sheltered female victims of IPV found post-traumatic stress disorder severity increased psychiatric morbidity, social maladjustment, and loss of resources (Johnson, Ziotnick, & Perez, 2008). Pico-Alfonso et al. (2006) found suicidal thoughts were higher in physically and psychologically abused IPV victims when compared to non-abused women. Peek-Asa (2011) compared urban and rural women visiting family planning clinics and found a higher prevalence, frequency, and severity of IPV among women living in small or isolated rural areas when compared to urban areas. In another study consisting of 24 urban, suburban, and rural emergency departments, one in three women presenting to the emergency room reported severe physical abuse or forced sexual activity in their lifetime and 86% reported if they were asked about IPV by healthcare providers they would disclose abuse by intimate partners (Kramer, Lorenzon, & Mueller, 2004). Lastly, a study of 1,200 emergency department visits in a rural hospital system, it was found that 86% of victims reported assault, 19% showed objective signs of IPV and 33% of the IPV victims reported fear due to their experience with IPV (Trinkley et al., 2012).

A national crime victimization survey indicated separated or divorced rural women are at higher risk for IPV when compared to urban and suburban women (Rennison, DeKerseredy, & Dragiewicz, 2013). Research has also shown there is an increased use of weapons in rural areas and increased risk of femicide (Annan, 2008; Krishnan et al., 2001; Peek-Asa et al. 2011). Gallup-Black (2005) examined 20 years of homicide data and found population-based murder rates were higher in rural areas and



murder rates increased in rural areas while other areas decreased. Effects on childhood also need to be considered because many times these women have children in the home while the IPV occurs. According to the adverse childhood experiences study, children of IPV victims are at risk for injury and psychological harm as well (CDC, 2017a). The increased risks of abuse and neglect in children of IPV victims may lead to future IPV perpetration or victimization from IPV (CDC, 2017a). Thus, an endless cycle of victimization or perpetration of IPV could occur.

### **Homicide Rate of Intimate Partner Violence**

Texas was ranked number 16 in the nation for female homicide from a male partner in 2012 with 179 femicides (National Coalition Against Domestic Violence [NCADV], 2015). Texas also had a homicide rate of 1.37 per 100,000 females (NCADV, 2015). This is more than 10% of the 2012 national total of homicides which is 1,706 (Violence Policy Center [VPC], 2014). In the United States, sixty-two percent of the women were murdered by intimate partners in 2012 (VPC, 2014). Additionally, 267 out of the 1,706 women were shot and killed by an intimate partner and the number one weapon of choice was a gun (VPC, 2014). According to an 11city study of femicide victims if there is a gun in the home the risk of homicide increases 500% (Campbell et al., 2003). The VPC (2014) also reported 72% of murder-suicides are committed by an intimate partner with 94% of the victims being female. Thus, the risk of homicide among IPV victims is substantial.

### **Geographical and Social Barriers for Intimate Partner Violence Victims**

Hughes (2010) reported living in a rural area as a significant barrier to leaving abusive relationships for IPV victims. Rural women are more likely not to have access to a vehicle and not to own their own phone therefore limiting their access to help (Annan, 2008). A lack of IPV victim resources and support is a major barrier for rural victims (Logan, Walker, Cole, Ratliff, & Leukefeld, 2003; Riddell et al., 2009; Sandberg, 2013; Sprague et al., 2012). Peek-Asa et al. (2011) found some women had to drive more than 25 miles to seek IPV victim resources and domestic violence intervention programs in rural areas generally have fewer shelter beds and professional services available. Other factors affecting help seeking behaviors in rural IPV victims are the isolation of living in a rural area, inadequate police response, and the acceptability of guns in rural areas (Annan, 2008; Shuman et al., 2008; Van Hightower & Gorton, 2002).

Traditional gender roles and limited social or professional networks also affect rural IPV victim's ability to seek help (Annan, 2008; Riddell et al., 2009; Van Hightower & Gorton, 2002). Wendt and Cheers (2002) explored 14 rural women's cultural beliefs and values influence on IPV and found there was a strong belief in the sanctity in preserving marriage, importance of Christian doctrine and privacy. In a meta-analysis of the literature, sexist attitudes and approval of woman abuse were associated with IPV victimization rates (Archer, 2006). IPV victims are also influenced by public awareness of personal affairs which negatively predicts their help seeking behavior (Riddell et al.,

2009, Sandberg, 2013) and the IPV victims feel this may cause health care providers to question their credibility (Annan, 2008).

Often IPV victims present to rural emergency rooms and rural nurses may be the first person to have contact with the victim. Rural nurses also spend a significant amount of time interacting with patients as compared to other health care providers. Glass, Dearwater, and Campbell (2001) found both IPV victims and non-victims advocate IPV screening; though, in a study of 11 mid-sized ER's fewer than 25% of victims were asked about IPV. However, if there was acute trauma from the abuse 39% of victims were asked about IPV. IPV victims want to be asked about abuse and have their needs met upon disclosure (Olive, 2007). Additionally, IPV victims want education about IPV (Olive, 2007; Randell, Bledsoe, Shroff, & Pierce, 2012).

Social support among rural women is an important predictor of help seeking and appears to positively influence help seeking behaviors (Bosch & Bergan, 2006; Chang et al., 2003; Lanier & Maume, 2009; Olive, 2007; Reisenhofer & Seibold, 2013). Research has shown there is a decrease in rural IPV victim access to resources when social support of the victim is not available, leading to poorer outcomes (Bosch & Bergan, 2006; Lanier & Maume, 2009). Shannon, Logan, Cole, and Medley (2006) found rural women reported a less helpful justice system and accessed less help seeking resources than urban women. Emotional support has been found to be associated with better mental and physical health (Coker, Watkins, Smith, & Brandt., 2003; Coker, Flerx, & Smith, 2007;

Olive, 2007). Social support for IPV victims is necessary to enable the victim to leave the relationship and seek help.

### **Nurse Intimate Partner Violence Screening**

The United States Preventive Task Force (2013) recommends screening all women deemed to be at risk for IPV and all women of childbearing age for IPV. They also recommend referral for intervention services. Controversy exists on whether or not to screen all women. A systemic review did not support screening of all women across the lifespan (United States Preventive Task Force [USPTF], 2013). The rationale being most studies did not show a significant difference in health outcomes of screened and unscreened women. However, studies supported screening all women of childbearing age and pregnant women due to findings of improved birth outcomes, reduced IPV/unsafe relationships, and reduced pregnancy coercion (United States Department of Health and Human Services [USDHHS] & Agency for Healthcare Research and Quality [AHRQ], 2013). The USPTF (2013) did admit screening instruments could identify IPV victims and may improve outcomes, but no significant outcomes between screened and unscreened women were statistically significant in the systematic review. Other organizations such as the Emergency Nurses Association and the International Association of Forensic Nurses recommend nurses routinely screen all patients for IPV due to the positive health outcomes associated with identifying IPV early (Emergency Nurses Association, 2013). The American Medical Association (2009) and American College of Emergency Physicians (2016) also recommends routinely screening for IPV.

Thus, although the USPTF does not support routine screening, ER nurse and ER physician groups advocate for routine screening of all patients.

### **Nurse Intimate Partner Violence Prevention**

Niolon et al. (2017) advocated several strategies for prevention of IPV based on a cumulation of the literature. Several strategies can be utilized from a nursing standpoint through nursing empowerment to be an influential resource for the IPV victim through patient education and support. Nurses can also provide an environment of safety in order to lessen the adverse effects of IPV. Niolon et al. (2017) suggested a patient centered approach with victim-centered services. A patient-centered approach includes prevention education, universal screening, and intervention for IPV (AHRQ, 2013; USDHHS, 2013). Interventions by nursing include advocacy for the victim as well as referral services to help the victim access community resources (Niolon, 2017; USDHHS, 2013). Simply supporting the patient, providing the National Domestic Violence Hotline number and a list of community resources can foster the patient-centered approach (Bosch & Bergan, 2006; Chang et al., 2003; Coker et al., 2005). The National Domestic Violence Hotline (2018) has answered over 4 million calls and has nation-wide access to healthcare providers for IPV victims and a list of shelters. If the victims can leave the abusive relationship, there is a decrease in long-term health issues (Niolon, 2017; USDHHS, 2013). However, coordination of services is unique to each community and victim and should be approached individually (Niolon, 2017). Thus, it is imperative nurses know how to provide patient-centered care and referral services in a rural ER setting.

### **Influence of Intimate Partner Violence Education on Health Care Providers**

Education about IPV screening has positive effects on nurse and healthcare provider screening behaviors. However, studies focusing on rural nurse IPV education or training are scarce. In one study of a rural health nonprofit network, training sessions, and clinical protocols was established and healthcare providers reported increased self-confidence in IPV screening and familiarity of IPV resources (Gadomski, Wolff, Tripp, Lewis, & Short, 2001). Additionally, knowledge, beliefs, attitudes, and IPV screening behaviors improved with the training. Other studies outside rural areas provided training to healthcare providers and also saw increased self-confidence in IPV screening, increased comfort in referrals, and increased understanding of the importance of IPV screening (Hamberger et al., 2004; Hinderliter, Doughty, Delaney, Pitula, & Campbell, 2003; Knapp, Dowd, Kennedy, Stallbaumer-Rouyer, & Henderson, 2006; O'Campo, Kirst, Tsamis, Chambers, & Ahmad, 2011; Plunkett, 2009; Short, Cotton, & Hodgson, 1997; Smith, Danis, & Helmick, 1998; Yildiz, Selimen, & Dogan, 2014). One study found training about IPV also improved attitudes and dispelled myths about IPV (Kaplan & Komurcu, 2017). In another study, Campbell et al. (2001) provided IPV education to the ER staff of 12 Pennsylvania and California ER's and found the intervention group had increased knowledge and improved attitudes of IPV. Furthermore, patient satisfaction improved with the IPV training and IPV screening protocols. Lastly, a study evaluated healthcare provider training and did not show an increase in knowledge about IPV, but

did show an increase in IPV screening skills (Davila, 2006). Thus, education does influence health care provider screening of IPV.

### **Rural Nurse Intimate Partner Violence Screening Barriers**

#### **Nurse Education**

Choo, Newgard, Lowe, Hall, and McConnell (2011) reported rural ER's clinicians (nurses and physicians) had less education when compared to urban ER's clinicians. There was also significantly less on-site violence advocacy in rural ERs (Choo et al., 2011). In a study of physicians and nurses, Gutmanis, et al. (2007) found inadequate preparation in education and experience were key barriers to routine IPV inquiry. Rural nurses also experience fewer educational and referral resources to help them gain skills in caring for IPV victims (Annan, 2008; Cox, Cash, Hanna, D'Arcy-Tehran, & Adams, 2001; Hughes, 2010; Peek-Asa et al., 2011; Sandberg, 2013).

Institutional barriers such as available training about IPV, existing policies regarding IPV screening, and knowledge of available resources in urban, suburban, and rural areas exist (Alsabhan, Alkandari, Alshamali, Kamel, & El-Shazly, 2011; Ambuel et al., 2013; Annan, 2008; Beynon, Gutmanis, Tutty, Wathen, & MacMillan, 2012; Choo et al., 2011; Davila, 2006; Davis & Harsh, 2001; Deboer, Rashmikan, Kothari, Koestner, & Rohs, 2013; Leppäkoski & Paavilainen, 2013; Ritchie, Nelson, & Wills, 2009; Yonaka, Yoder, Darrow, & Sherck, 2007). Common practices and written procedures increased IPV victim intervention in one study of 950 emergency room department professionals (Leppäkoski & Paavilainen, 2013). A lack of training was cited as a top barrier in studies

asking physicians and nurses as to why they did not inquire about abuse (Alotaby, Alkandari, Alshamali, Kamel, & El-Shazly, 2012; Beynon et al., 2012). Knowledge, beliefs, perceptions, and attitudes influence a nurse's incentive to screen, identify, and refer IPV victims in various nurse practice settings including urban, suburban, and rural areas (Breiding, Ziembroski, & Black, 2009; Gutmanis et al., 2007; Peek-Asa et al., 2011; Robinson, 2010; Yeung, Chowdhury, Malpass, & Feder, 2012).

These barriers prevent nurses from appropriately screening and identifying victims of IPV. Natan and Rais (2010) used a questionnaire to identify what barriers nurses experienced in relation to IPV. Natan and Rais (2010) found 44% had no IPV training, 28.2% received training via in-service, 19.5% received training in an advanced course, and 14.1% were educated during their coursework in advanced degrees. Additionally, barriers to IPV screening included lack of knowledge, lack of expertise, and a lack of awareness of the IPV screening process (Natan & Rais, 2010). Other studies suggested a lack of training and not knowing how to ask about IPV as significant barriers (Ellis, 1999; Beynon et al., 2012).

Schoening, Greenwood, McNichols, Heermann, and Agrawal (2004) found nurses with no IPV training had significant improvement in attitudes about screening after a 3-hour training course and nurses with previous training had significant improvement after a 1-hour refresher course. This improvement in nurse attitudes about IPV screening confirms the importance of training and refresher courses. Schoening et al. (2004) found a 53% increase in awareness of IPV institutional screening policies and only one staff



member reported a lack of awareness of nurse responsibility to IPV screening 1-6 months after IPV training had occurred. They also found a 46% decrease in nurses' lack of knowledge about the IPV referral processes after IPV training. Other studies indicate training increases knowledge about IPV institutional policies and nurse responsibilities (Hamberger et al., 2004; Hinderliter et al., 2003; Knapp et al., 2006; O'Campo, Kirst, Tsamis, Chambers, & Ahmad, 2011; Plunkett, 2009; Short, et al., 1997; Smith, Danis, & Helmick, 1998). Thus, education appears to have significant impact on IPV screening behaviors by nurses.

### **Self-Efficacy**

Social and environmental factors such as nurse training about IPV, personal confidence in IPV screening ability, and hospital support of IPV screening influence rural nurse self-efficacy (Hamberger et al., 2004; Hollingsworth & Ford-Gilboe, 2006; Williams, Halstead, Salani, & Koerner, 2017). Recognizing self-efficacy as a factor in rural nurse IPV screening practices is important as research has shown knowledge and attitudes influence a nurse's incentive to screen, identify, and refer IPV victims in various nurse practice settings (Gutmanis et al., 2007; Yeung, et al., 2012). It has also been reported that there is a positive relationship between self-efficacy and IPV screening and response to IPV (Hamberger et al., 2004; Hollingsworth & Ford-Gilboe, 2006). Smith, et al.(1998) found perceived competence as a predictor of IPV screening behaviors once again relating self-efficacy to IPV screening.

Variability in rural nurse responses to support and refer IPV victims in rural communities has also been shown to be an issue (Chapin, Coleman, & Varner, 2011; Hughes, 2010). Self-confidence regarding IPV screening influences a nurse's intent to screen for IPV in various practice settings (Ambuel et al., 2013; Bournsnel & Prosser, 2010; Chapin, 2007). Chapin et al. (2011) examined 320 nurses and medical students and found self-efficacy to vary widely in their ability to screen for IPV. Nurses who have had training in IPV screening have improved self-confidence and skills to identify and respond to IPV (Ambuel et.al, 2013; Bournsnel & Prosser, 2010; Hamberger et. al, 2004). Rousch and Kurth (2016) looked at healthcare providers which included nurses in a large rural health network and found the providers only had moderate confidence in what to do when a victim disclosed abuse. Hollingsworth and Ford-Gilboe (2006) examined the self-efficacy of registered nurses and how it influenced response to IPV in an ER. IPV information availability positively influenced assessment and response to IPV and outcome expectancies were positively related to assessment and response to IPV in this study as well as other studies (Ambuel et.al, 2013; Bournsnel & Prosser, 2010; Hamberger et. al, 2004; Chapin, Coleman, & Varner, 2011; Hollingsworth & Ford-Gilboe, 2006).

### **Practice Issues**

There are limited studies about rural ER practice issues such as professional support, practice pressures, previous experience with IPV, and comfort with IPV screening. These issues are all significant barriers to rural ER nurse attitudes about IPV

screening. Rural nurses are not offered support for their role as IPV victim advocates (Davis & Harsh, 2001; Evanson, 2006; Hughes, 2010). Evanson (2006) found rural public health nurses had trouble getting support for themselves following disclosure of abuse. In addition, the presence of IPV victim's partners in the ER during treatment and the behaviors of women living with abuse are also significant barriers to screening (Beynon, et al., 2012). Lastly, many rural ER's do not have official screening policies and standardized screening tools (Choo et. al, 2011). Therefore, since limited research exists about rural ER nurse practice issues it is unclear how these particular issues influence their IPV screening attitudes and habits.

Other studies of urban ER nurses found practice issues such as a lack of privacy for screening, a lack of time and lack of experience were also barriers to IPV screening (Ellis, 1999; Williams, et al., 2017). Asking about IPV can be time consuming; a large percentage of nurses indicate this as the number one barrier (Ellis, 1999; Beynon et al., 2012; Williams et al., 2017). IPV screening is a sensitive topic to discuss with patients and time to conduct an assessment is paramount in identifying the potential victims. Time constraints were repeatedly cited as a negative predictor of IPV screening. Jeanjot, Barlow, and Rozenburg (2008) found that 24% of healthcare providers felt IPV screening is too time consuming.

Approaching the subject of IPV requires careful questioning and sensitivity by the health professional. Many health professionals have limited time in which to discuss this topic. Additional studies indicated barriers related to lack of privacy and lack of time

(Beynon et al., 2012; Rousch & Kurth, 2016; Williams et al., 2017). Experience has also been found to be a significant barrier. Yeoung et al. (2012) found nurses who lacked clinical experience in IPV disclosure did not feel confident in IPV screening despite training. Hamberger et al. (2004) found previous experience with IPV victims positively affected self-efficacy in health professionals. Lastly, Ellis (1999) suggested that more experienced or older nurses were more likely to screen for IPV, which was thought to be related to the nurses' age and more opportunities to attend in-services over time thus increasing self-efficacy. Thus, inferring age as a practice issue with younger nurses demonstrating less likeliness to screen for IPV.

### **Rural Community Barriers**

It is not uncommon for nurses to feel helpless and frustrated when dealing with IPV in rural communities (Cox et. al, 2001; Davila, 2006). Rural nurses feel that the close community ties within rural communities and the lack of anonymity create barriers to disclosure of abuse for rural IPV victims (Evanson, 2006; Haggblom & Moller, 2006; Sandberg, 2103). Evanson (2006) examined rural public health nurses and found the nurses had difficulty maintaining professional-personal boundaries with the IPV victims. Other factors such as a lack of privacy, increased public awareness of personal affairs in rural communities, difficulty in maintaining nurse/patient boundaries, and a need for emotional support for the nurse after disclosure influences rural nurse's IPV screening habits (Bracken & Clifton, 2015; Evanson, 2006; Riddell et al., 2009; Sandberg, 2013).

A lack of IPV victim resources in rural areas leads to varied rural nurse response to IPV (Annan, 2008; Hughes, 2010). Choo et. al (2011) noted remote rural ERs had fewer resources than larger, less remote ERs. If nurses identify IPV, it is imperative that housing or referral resources are available. Over the past five years, there has been a significant increase in unmet housing needs for IPV victims in Texas as evidenced by an inability for the TCFV to provide housing for 12,693 victims in 2016 (TCFV, 2017). Rural nurses caring for IPV victims experience challenges that only exist in rural communities (Annan, 2008; Cox et al., 2001; Evanson, 2006; Riddell, et al., 2009). Cooperation amongst ER providers and help resources increase IPV victim intervention amongst ER professionals (Leppäkoski & Paavilainen, 2013).

### **Gender Roles**

Beliefs, attitudes, and perceptions about traditional gender roles have a significant impact on a nurses IPV screening practices. Traditional gender roles are a challenge for rural nurses caring for IPV victims due to stereotypical views of gender roles in rural areas (Annan, 2008; Johnson, McGrath, Dunn, & Miller, 2007; Peek-Asa et al., 2011; Sandberg, 2013). Attitudes about women's roles within rural communities may influence how a rural nurse perceives the likelihood of IPV being an issue within their own community. Furthermore, how rural communities respond to IPV can be influenced by patriarchal views of women's role within the community (DeKeseredy, 2015; Johnson et al., 2007) Researchers have used feminist theories to explain or predict factors influencing personal support, economic class, and stereotypical behaviors (Bosch &

Bergan, 2006; Riddell et al., 2009; Sandberg, 2013). These factors have been reported to negatively impact nurse IPV screening and help-seeking behaviors of IPV victims leading to limited access to beneficial services (Bosch & Bergan, 2006; Riddell et al., 2009; Sandberg, 2013).

There are limited studies to describe the influence of gender roles on rural ER nurse IPV screening. Williams et al. (2017) conducted semi-structures interviews in 16 healthcare facilities and found the health care providers felt that Hispanic women's normative views about IPV contributed to more tolerance and longer periods of waiting prior to the victim reporting IPV. Normative gender roles related to local culture and ethnicity may indirectly influence rural nurse's views on IPV leading to complacency in nurse screening for IPV. Another researcher also performed semi-structured interviews with 24 nurses and midwives and found the nurses felt men inflicted power over women causing deliberate discomfort (Peckover, 2003). However, despite these feelings, nurses underestimated the prevalence of IPV. Lastly, Eastman, Bunch, Williams, and Carawan (2007) conducted a focus group of 38 rural IPV victims and found patriarchal attitudes encouraged the victim to be subordinate to their spouse and religious organizations promoted keeping the marriage intact. These views made to women feel male dominance was acceptable and that the community members or health professionals would not hold the perpetrator accountable.

Not all cultures perceive IPV in the same manner and personal views on gender roles may differ. Globally, one in three women experience gender-based violence (United

States Agency for International Development, 2018). The United States is a melting pot of cultures and has varied cultural beliefs. Carretta (2008) discussed how in some countries, men have the right to punish women in order to control their behavior. This cultural difference increased the risk of fatal domestic violence episodes because the punishment for the crime may be minimal. In addition, World Health Organization (2005) identified basic human rights violations in countries that accept domestic violence as the norm. Differing cultural views could complicate a health professional's ability to assist victims. Fortunately, in the United States laws to protect IPV victims do exist. Being mindful of cultural differences between countries and immigrants moving into the United States is important when screening for abuse because perceptions of what does or does not constitutes physical or verbal abuse could exist.

## CHAPTER III

### METHODOLOGY

#### **Population and Sample**

An anonymous cross-sectional survey design was utilized in this study. The data was collected from each participant using the selected HCPS of IPV Attitudes and Practices and the subscale DCDLD from the GEM scale. Other research studies of urban, suburban, and rural nurses have used a similar cross-sectional survey design to examine barriers for IPV screening across various types of nurse practice settings and have obtained valuable information about relationships between the barriers and IPV screening by nurses (Alotaby et al., 2012; Alsabhan et al., 2011; DeBoer et al., 2013; Ellis, 1999, Gutmanis et al., 2007). This study received exempt status approval from Texas Woman's University's Institutional Review Board (IRB) prior to beginning. Nurses who work in rural emergency departments in the state of Texas were recruited for participation in this study. A request to place the survey on the listservs of nursing organizations, universities, rural hospitals and the Texas Organization of Rural and Community Hospitals were conducted. In addition, social media such as Facebook and Twitter were used to recruit participants for the study. Participants in the study were offered a chance to enter a drawing to win a \$100 MasterCard gift card and the winner was selected using a table of



random numbers. According to the Texas State Board of Nursing (2016), 526 LVNs and 3,369 RNs are employed in rural Texas ERs. The Raosoft sample size calculator was used to determine the sample size of RNs and LVNs required to find significance. A sample size of 251 RNs and 179 LVNs was predicted to be needed to reach a confidence level of 90% with a 5% margin of error (Raosoft, 2016).

### **Protection of Human Participants**

PsychData (2017) reported the following:

All surveys hosted with PsychData are encrypted using 256-bit SSL Technology (Secure Socket Layer) that is equivalent to the industry standard for securely transmitting credit card information over the Internet. This technology encrypts BOTH the questions displayed to the participants and their responses. Thus, all responses are instantly encrypted and remain so until they are received at the PsychData database. Interception of data when it is being transmitted between the Internet browser (i.e., Internet Explorer, FireFox, Safari, Chrome) and the PsychData database is HIGHLY unlikely (consider the motivations of a person attempting to intercept research data over the internet vs. papers stored in an office vs. credit card information). However, should interception of encrypted data occur, that data could not be decoded without the unique encryption key that is held only by PsychData (para 1).

## **Data Collection Procedures**

### **Instrumentation**

A structured self-administered questionnaire, the HCPS of IPV Attitudes and Practices, which included questions related to attitude and practice barriers for IPV, IPV training received, personal experience with IPV screening, and experience of IPV of an acquaintance or relative was used (Gutmanis et al., 2007). The survey instrument presented a sample IPV case and then the rural emergency room nurse was given a 43-item questionnaire using a Likert type scale (ranging from strongly agree to strongly disagree) asking about IPV resources and IPV screening behaviors. In addition, the DCDLD subscale was used to measure attitudes about gender norms and social expectations of men and women (Nanda, 2011). The DCDLD subscale consisted of 5 questions asking about domestic life and daily chores using a Likert type scale (ranging from agree, partially agree, & do not agree). A demographic questionnaire was also administered. PsychData was utilized to collect the survey responses in a secure and confidential manner. The first few questions determined if the participant was a RN or LVN in Texas and if they worked in a rural ER as defined by the American Hospital Association (AHA, 2016). After eligibility was determined demographic data including profession, age, gender, ethnicity, years of practice, highest degree earned in nursing, years of practice within the emergency room, and full-time equivalent employment status was obtained.

The 43-item HCPS of IPV Attitudes and Practices was found to be a reliable and valid instrument with Cronbach's alpha scores above 0.7 which are considered acceptable (Gutmanis et al., 2007; Pallant, 2010). The Cronbach alpha scores were 0.87 for preparedness (8 item subscale; I would like to talk about abuse and do not know what to say), 0.79 for self-confidence (7 items subscale; I am confident with my ability to ask about abuse), 0.79 for practitioner lack of control (7 item subscale; There isn't anything to I can do unless she asks for help), 0.77 for comfort following disclosure (2 item subscale; I feel like I am able to listen to the women's stories as they disclose IPV), 0.74 for professional support (4 item subscale; I have an opportunity to for consultation regarding how to deal with IPV situations), 0.73 for practice pressures (5 item subscale; I may forget to ask her about woman abuse), 0.71 for abuse inquiry (7 item subscale; I routinely initiate the topic of abuse), and 0.59 for practitioner's consequences of inquiry (3 item subscale; I worry about my own safety when I inquire about a woman's abuse) (Gutmanis et al. 2007). The low score for practitioner's consequences of inquiry was thought to be because there were only three items in that section and low numbers of items in analysis can decrease alpha (Gutmanis et al., 2007). The GEM scale (which included the subscale DCDLD) was found to have an estimated overall Cronbach's alpha of 0.81. Table 1 in Appendix A and Table 2 in Appendix B details which questionnaire items were included in each scale.

## **Data Analysis**

A descriptive analysis of the variables was performed using means, standard deviations, and ranges of scores for the continuous variables of preparedness, self-confidence, professional supports, abuse inquiry, nurse consequences for asking, comfort following disclosure, nurse lack of control, and nurse practice pressures. Frequencies and percentages were calculated for the categorical demographic variables such as age, sex, ethnicity, degree, IPV training, and years of practice. Profession specific comparisons were also performed to examine the differences in the categorical variables RN and LVN. Frequency distributions of continuous variables were constructed to evaluate for outliers and test for normality assumptions. Any extreme outliers were examined for missing or clerical errors and the missing data or clerical errors that were found were corrected and reported in the analysis (Polit, 2010; Polit & Hungler, 1999). Moreover, linearity assumption by examining correlations between continuous independent and dependent variables were checked.

In the primary analysis, multiple linear regression was used to predict the relationship of social, environmental and geographical influences with rural nurse IPV screening. Years of practice, IPV training, and IPV experience are covariates that were included in the regression analysis. In order to test the hypothesis that preparedness, self-confidence, professional supports, abuse inquiry, nurse consequences for asking, comfort following disclosure, nurse lack of control, and nurse practice pressures mediate rural ER nurse IPV screening, Multiple regression was used to predict the correlations among the

variables. All independent variables of our interest were included in the model. Normality and homogeneity of variance on the errors was assessed. Variance inflation factors (VIF) and tolerance was used for collinearity diagnostics.  $VIF > 5$  or tolerance  $< .10$  indicates multicollinearity issue, and predictors with this issue were removed from the model. The remaining predictors were included in the final model. All data was analyzed using IBM SPSS v24.

## CHAPTER IV

### RESULTS

The purpose of this quantitative study was to determine if attitudes and emergency room practice factors influence screening for IPV by rural ER RNs and LVNs. To achieve this purpose, data was collected from a sample of ER nurses working in rural Texas emergency rooms using the Health Care Provider Survey of IPV Attitudes and Practices and the Domestic Chores and Daily Life Domain (DCDLD) subscale of the Gender Equitable Men Scale. The collected data was examined using multiple regression analysis to determine whether the participants' demographic characteristics, emergency room practice factors, and intrapersonal and social attitudes exhibited a statistically significant influence on the subscale scores for the HCPS of IPV attitudes and practices. The results of the data analysis are discussed in this chapter.

#### **Preliminary Analysis Procedures**

Prior to conducting the inferential statistical analysis for this study, the data was first inspected. The original data set included data from 197 respondents. However, upon visual inspection, it was determined that 92 respondents did not provided any responses to the HCPS and the DCDLD, and these data points were subsequently removed. A total 105 cases remained for analysis.

Descriptive statistics were derived for the study variables. For the continuous variables of the study, which included the subscale scores for the HCPS and the DCDLD, measures of central tendency, particularly the mean, the standard deviation, and the range were determined. The results of the descriptive statistics analysis are shown below in Table 1. Mean scores for the HCPS subscales are as follows: Preparedness ( $M = 18.54$ ,  $SD = 2.14$ ), Self-confidence ( $M = 14.36$ ,  $SD = 3.12$ ), Practitioner Lack of Control ( $M = 21.26$ ,  $SD = 2.73$ ), Comfort Following Disclosure ( $M = 3.73$ ,  $SD = 1.05$ ), Professional Support ( $M = 9.49$ ,  $SD = 2.04$ ), Practice Pressures ( $M = 15.37$ ,  $SD = 2.25$ ), Abuse Inquiry ( $M = 16.50$ ,  $SD = 1.74$ ), and Practitioner Consequences of Inquiry ( $M = 8.60$ ,  $SD = 1.45$ ). The scores for these subscales will be used as the dependent variables of the study. The mean score for the DCDLD is  $M = 13.64$  ( $SD = 1.40$ ), and the scores for this variable will be used as an independent variable, along with the demographic characteristics and emergency room practice characteristics of the participants.

Table 1

*Descriptive Statistics – Study Variables*

	Mean	Std. Deviation	Range Min	Max
HCPS of IPV Attitudes and Practices				
Preparedness	18.5429	2.135	13.00	23.00
Self-confidence	14.3619	3.123	7.00	22.00
Practitioner lack of control	21.2571	2.725	13.00	27.00
Comfort following disclosure	3.7333	1.049	2.00	6.00
Professional support	9.4857	2.039	4.00	15.00
Practice pressures	15.3714	2.245	10.00	20.00

Abuse inquiry	16.4952	1.744	12.00	22.00
Practitioner consequences of inquiry	8.6000	1.451	3.00	12.00
Domestic Chores & Daily Life Domain	13.6381	1.401	10.00	15.00

The other variables of the study are the demographic characteristics and emergency room practice characteristics of the participants. These variables were operationalized as categorical variables, and frequency statistics were derived. Frequency analysis were conducted for the entire data set, and again conducted using the data from the RNs and the LVNs separately. The results of the frequency analysis are summarized below in Table 2.

A total of 105 data points were collected for this study. Out of the 105 respondents, 86 were reported as RNs (81.9%), while 18 were reported as LVNs (17.1%). One respondent declined to indicate his or her title. The majority of the participants were female. Out of 105 total participants, 88 were female (83.8%) and 17 were male (16.2%). Among the 86 RNs, (70 were female (81.4%) and 16 were male (18.6%). Among the 18 LVNs, 17 were female (94.4%) while only one respondent was male (5.6%). For the RNs, participants were classified equally in three age groups, specifically 30-39, 40-49, and 50-59, with each group accounting for 26.7% of the respondents. For the LVNs, the largest percentage of participants were aged between 20 and 29 years (6 out of 18, 33.3%).

Out of 105 total participants, 50 (47.6%) reported to possess an associate degree. For RNs, 46 out of 86 (53.5%) possessed an associate degree, while for the LVNs, 10 out



of the 18 participants (55.6%) possessed a vocational diploma. The largest percentage of participants have been practicing as a nurse for 21 to 30 years (24 out of 105, 22.9%), and 36.2% (38 out of 105) are currently employed as a staff nurse or a general duty nurse. The next largest group of participants are currently employed as a head nurse or a charge nurse (25 out of 105, 23.8%).

With regard to their experience working in a rural ER, 26.7% of the participants (28 out of 105) have been employed in a rural ER for 5 to 9 years, while 23.8% (25 out of 105) have been employed in a rural ER for 2 to 4 years. The majority of the participants (95 out of 105, 90.5%) are full-time employees, with 44 out of 105 (41.9%) working in a not for profit organization emergency room. Among the 105 participants, most have not had any formal training on violence against women (VAW) or domestic violence (DV), with only 48 out of 106 (45.7%) having had any formal training on VAW or DV. However, the majority have had an experience with abuse disclosure (74 out of 106, 71.2%). Among those who have experienced abuse disclosure, most of them have experienced between 1 and 19 disclosures. Due to abuse disclosures, seventy-eight out of the 105 respondents (74.3%) have had to call the police, while 72 out of 105 (68.6%) have called Child Protective Services (CPS) due to an abuse disclosure. Seventy out of 105 (66.7%) reported that under Texas state laws, they were required to report domestic violence cases. The largest percentage of participants (74% of RN & 55.6% of LVN) reported that abuse disclosures occurred in their practice, in that they try to identify

victims of abuse (49 out of 105, 46.7%); however, abuse disclosures had no negative impact on their employment (103 out of 105, 98.1%).

Table 2

*Demographic Characteristics*

	Total		RNs		LVNs	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Type of Nurse						
Registered Nurse (RN)	86	81.9	--	--	--	--
Licensed Vocational Nurse (LVN)	18	17.1	--	--	--	--
Missing	1	1.0	--	--	--	--
Gender						
Female	88	83.8	70	81.4	17	94.4
Male	17	16.2	16	18.6	1	5.6
Age Group						
20-29	16	15.2	10	11.6	6	33.3
30-39	26	24.8	23	26.7	3	16.7
40-49	28	26.7	23	26.7	5	27.8
50-59	26	24.8	23	26.7	3	16.7
60-69	8	7.5	7	8.1	1	5.6
Missing	1	1.0	--	--	--	--
Ethnicity						
Hispanic or Latino	10	9.5	6	7.0	4	22.2
White	94	89.5	80	93.0	14	77.8
Missing	1	1	--	--	--	--
Highest Degree						
Vocation	10	9.5	0	0.0	10	55.6
Diploma	6	5.7	6	7.0	0	0.0
Certificate	4	3.8	0	0.0	4	22.2
Associate Degree	50	47.6	46	53.5	4	22.2
Bachelor's Degree	25	23.8	25	29.1	0	0.0
Master's Degree	9	8.6	9	10.5	0	0.0
Missing	1	1.0	--	--	--	--
Years in Practice						
1-2 years	6	5.7	4	4.7	2	11.1
3-5 years	15	14.3	13	15.1	2	11.1
6-10 years	16	15.2	11	12.8	5	27.8

11-15 years	20	19.0	17	19.8	3	16.7
16-20 years	15	14.3	13	15.1	2	11.1
21-30 years	24	22.9	21	24.4	3	16.7
More than 30 years	8	7.6	7	8.1	1	5.6
Missing	1	1.0	--	--	--	--
Current Title						
Staff Nurse/General Duty Nurse	38	36.2	23	26.7	15	83.3
Supervisor	18	17.1	18	20.9	0	0.0
Head Nurse/Charge Nurse	25	23.8	25	29.1	0	0.0
Advanced Practice Registered Nurse	5	4.8	5	5.8	0	0.0
Other	18	17.1	15	17.4	3	16.7
Missing	1	1.0	--	--	--	--
Years Employed in Rural ER						
1 year	11	10.5	8	9.3	3	16.7
2-4 years	25	23.8	21	24.4	4	22.2
5-9 years	28	26.7	24	27.9	4	22.2
10-14 years	18	17.1	14	16.3	4	22.2
15-19 years	9	8.6	8	9.3	1	5.6
20 or more years	13	12.4	11	12.8	2	11.1
Missing	1	1.0	--	--	--	--
Employment Status						
Contract	1	1.0	1	1.2	0	0.0
Part-time	5	3.8	2	2.3	2	11.1
Full-time	95	90.5	79	91.9	16	88.9
Other	4	3.8	4	4.7	0	0.0
Missing	1	1.0	--	--	--	--
Type of ER						
Government	14	13.3	12	14.0	2	11.1
Not for Profit Organization	44	41.9	40	46.5	4	22.2
For Profit Organization	32	30.5	25	29.1	7	38.9
Other	14	13.3	9	10.5	5	27.8
Missing	1	1.0	--	--	--	--
Formal Training on VAW or DV						
Yes	48	45.7	42	48.8	6	33.3
No	56	53.3	44	51.2	12	66.7
Missing	1	1.0	--	--	--	--
Experience with Abuse Disclosure						
Yes	74	71.2	64	74.4	10	55.6
No	30	28.8	22	25.6	8	44.4
Missing	1	1.0	--	--	--	--

Number of Abuse Disclosures						
1-19	70	70.5	62	72.1	8	44.4
20-29	3	28.6	2	2.3	1	5.6
30 or more	0	0.0	0	0.0	1	5.6
Missing	1	1.0	22	25.6	8	44.4
Called Police due to Abuse Disclosure						
Yes	78	74.3	66	76.7	12	66.7
No	26	24.8	20	23.3	6	33.3
Missing	1	1.0	--	--	--	--
Called CPS Due to Abuse Disclosure						
Yes	72	68.6	65	75.6	7	38.9
No	32	30.5	21	24.4	11	61.1
Missing	1	1.0	--	--	--	--
Required to Report DV Incidents						
Yes	70	66.7	58	67.4	12	66.7
No	34	32.4	28	32.6	6	33.3
Missing	1	1.0	--	--	--	--
DV's Effect on Practice						
Not applicable, no such history	38	36.2	34	39.5	4	22.2
Increased anxiety	3	2.9	3	3.5	0	0.0
Tries to identify victims of abuse	49	46.7	36	41.9	13	72.2
No effect on practice	14	13.3	13	15.1	1	5.6
Missing	1	1.0	--	--	--	--
Abuse Disclosure Neg. Impact on Employment						
Yes	1	1.0	1	1.2	0	0.0
No	103	98.1	85	98.8	18	100.0
Missing	1	1.0	--	--	--	--

### Inferential Statistics Analysis

To address the purpose and research questions of the study, a total of eight multiple regression analysis procedures were conducted. Each analysis used one subscale of the HCPS as a dependent variable. In all regressions, the participants DCDLD scores, demographic characteristics, and emergency room practice characteristics were used as

the predictor variables. For each regression, the assumptions of linearity, normality, homoscedasticity were determined based on normal P-P plots and scatterplots. The assumption of multicollinearity will be determined based on the VIF and tolerance values.

Based on the results of the assumption testing for each regression model, normal P-P plot and scatterplots indicate that the assumption for linearity, normality, and homoscedasticity for the proposed regression equation are fulfilled for all models. The assumption of multicollinearity was also met, based on the VIF statistics, all of which are lower than the threshold value of 5 required to fulfill the assumption of multicollinearity. Likewise, tolerance values were all greater than .01, indicating that the assumption of multicollinearity has been fulfilled. The normal P-P plots and scatterplots for the regression models are shown in Figures 1 to 8.

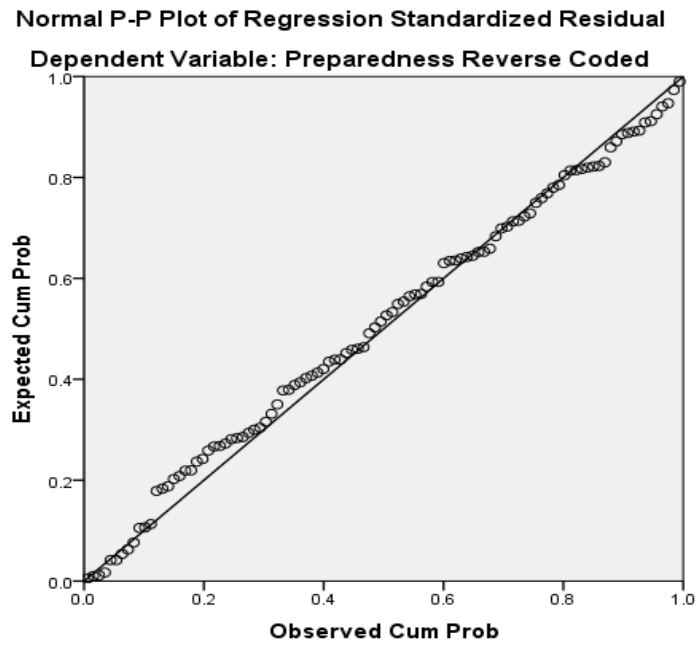


Figure 1.1. *Assumption Testing Results – Normality (DV: Preparedness)*

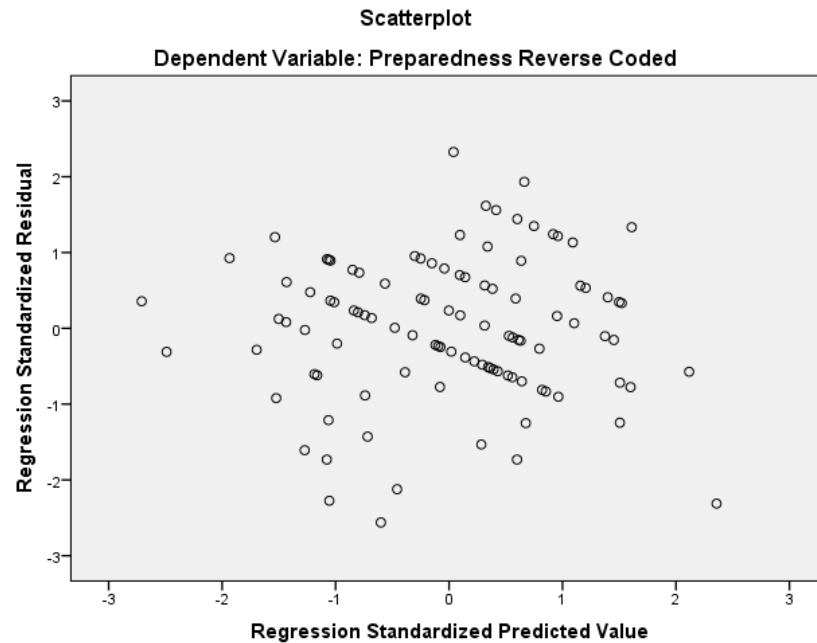


Figure 1.2. *Assumption Testing Results – Homoscedasticity (DV: Preparedness)*

Table 3 summarizes the results of the regression conducted using the Preparedness subscale as the dependent variable. Based on the results, it was determined that a statistically significant regression equation was found ( $F(12, 91) = 3.420, p < .001$ ), with an  $R^2$  of .220. Out of all the predictors in the model, the highest degree earned ( $\beta = -.528, p = .009$ ), the type of nurse ( $\beta = -2.198, p = .002$ ), formal training on VAW/DV ( $\beta = 1.514, p < .001$ ), and experience with abuse disclosure ( $\beta = 1.028, p = .018$ ) were determined to be statistically significant predictors of the scores for the Preparedness subscale.

Table 3

*Multiple Regression Analysis – Preparedness as DV*

		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
		B	Std. Error	Beta	<i>t</i>	Sig.	Tolerance VIF
1	(Constant)	17.209	3.959		4.347	<.001	
	DCDLD	.088	.139	.058	.630	.530	.909 1.100
	Gender	.600	.519	.104	1.156	.251	.932 1.073
	Age Group	.048	.234	.026	.204	.839	.449 2.229
	Ethnicity	-.188	.335	-.052	-.561	.576	.880 1.136
	Highest Degree	-.528	.198	-.325	-2.666	<b>.009</b>	.509 1.966
	Type of Nurse	-2.198	.691	-.390	-3.180	<b>.002</b>	.502 1.991
	Years in Practice	.029	.168	.024	.174	.862	.411 2.434
	Years Employed in Rural ER	-.031	.171	-.022	-.183	.855	.527 1.899
	Employment Status	.379	.565	.060	.670	.504	.934 1.070
	Type of ER	.072	.171	.038	.419	.676	.912 1.096
	Formal Training on VAW or DV	1.514	.401	.354	3.775	<b>&lt;.001</b>	.860 1.163
	Experience with Abuse Disclosure	1.028	.427	.219	2.408	<b>.018</b>	.918 1.089

a. Dependent Variable: Preparedness Reverse Coded

b. Model Summary:  $F(12, 91) = 3.420, p < .001$ , Adjusted  $R^2 = .220$



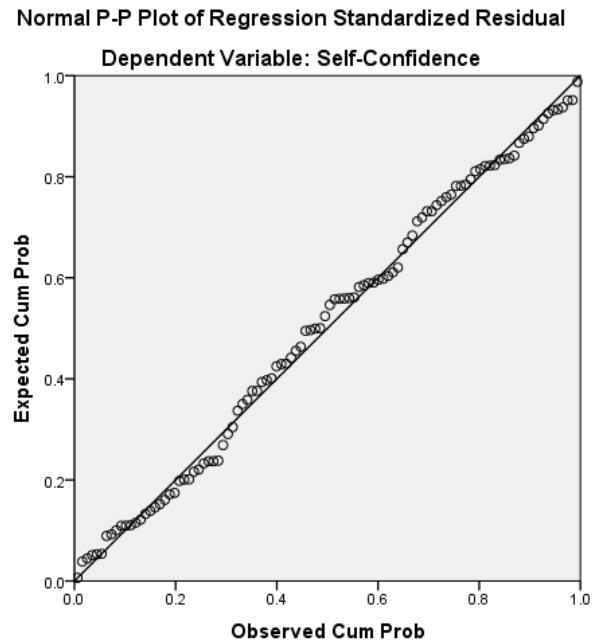


Figure 2.1. Assumption Testing Results – Normality (DV: Self-Confidence)

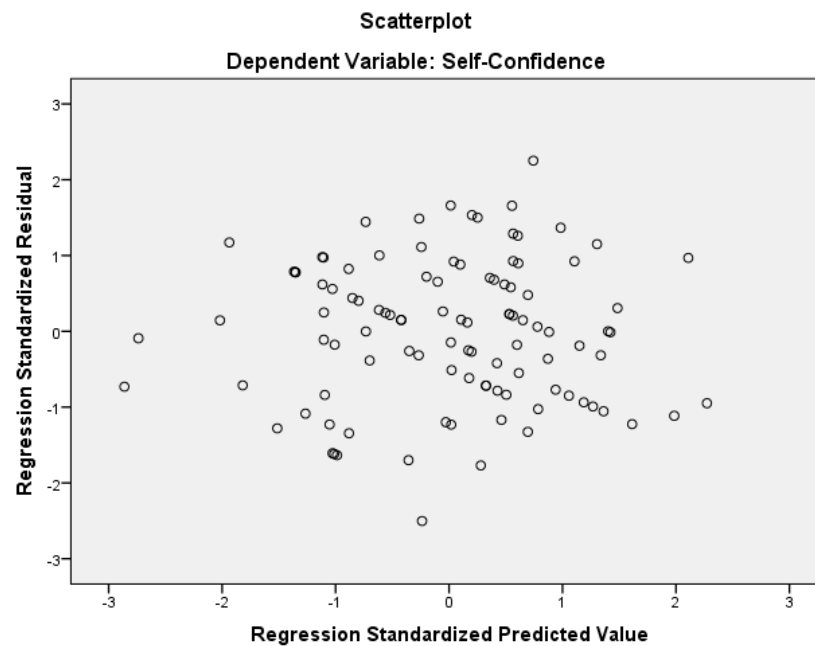


Figure 2.2. Assumption Testing Results – Homoscedasticity (DV: Self-Confidence)

Table 4 contains the results of the regression conducted using the Self-Confidence subscale as the dependent variable. Based on the results, it was determined that a statistically significant regression equation was found ( $F(12, 91) = 3.914, p < .001$ ), with an  $R^2$  of .253. Out of all the predictors in the model, the highest degree earned ( $\beta = -.821, p = .006$ ), the type of nurse ( $\beta = -3.382, p = .001$ ), and formal training on VAW/DV ( $\beta = 2.456, p < .001$ ), were determined to be statistically significant predictors of the scores for the Self-Confidence subscale.

Table 4

*Multiple Regression Analysis – Self-Confidence as DV*

		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
		B	Std. Error	Beta	<i>t</i>	Sig.	Tolerance VIF
1	(Constant)	16.886	5.801		2.911	.005	
	DCDLD	.077	.203	.034	.378	.707	.909 1.100
	Gender	1.422	.761	.165	1.870	.065	.932 1.073
	Age Group	-.090	.343	-.033	-.262	.794	.449 2.229
	Ethnicity	-.296	.491	-.055	-.603	.548	.880 1.136
	Highest Degree	-.821	.290	-.338	-2.829	<b>.006</b>	.509 1.966
	Type of Nurse	-3.382	1.013	-.401	-3.339	<b>.001</b>	.502 1.991
	Years in Practice	.094	.246	.051	.380	.705	.411 2.434
	Years Employed in Rural ER	-.080	.250	-.038	-.321	.749	.527 1.899
	Employment Status	-.104	.829	-.011	-.125	.900	.934 1.070
	Type of ER	-.257	.250	-.091	-.025	.308	.912 1.096

Formal Training on VAW or DV Experience with Abuse Disclosure	2.456	.588	.384	4.180	<b>&lt;.001</b>	.860	1.163
	1.029	.626	.146	1.645	.103	.918	1.089

a. Dependent Variable: Self-Confidence

b. Model Summary:  $F(12, 91) = 3.914, p < .001$ , Adjusted  $R^2 = .253$

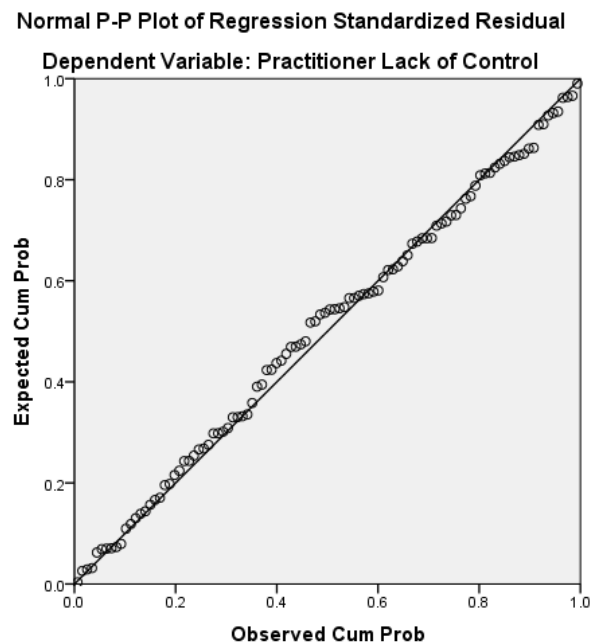


Figure 3.1. Assumption Testing Results – Normality (DV: Practitioner Lack of Control)

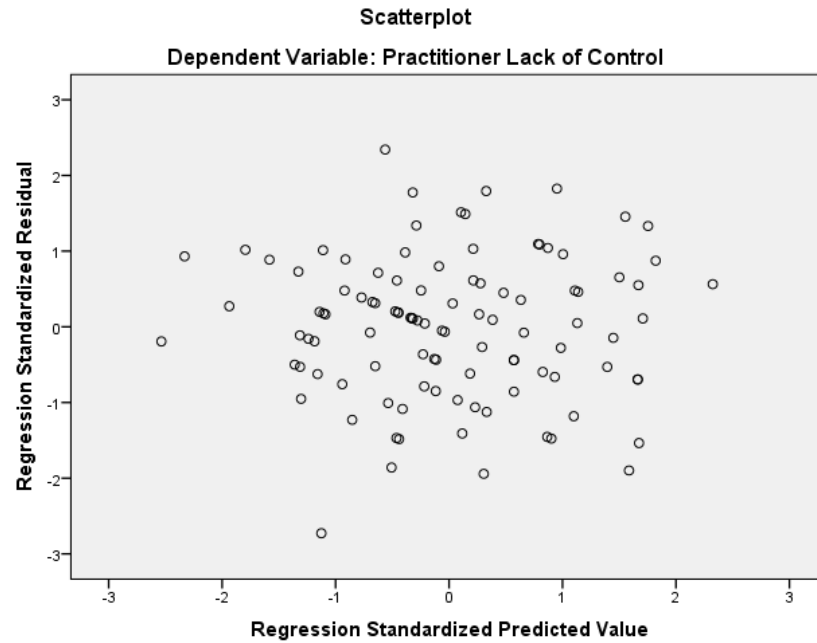


Figure 3.2 *Assumption Testing Results – Homoscedasticity (DV: Practitioner Lack of Control)*

Table 5 contains the results of the regression conducted using the Practitioner Lack of Control subscale as the dependent variable. Based on the results, it was determined that a statistically significant regression equation was found ( $F(12, 91) = 3.254, p = .001$ ), with an  $R^2$  of .208. Out of all the predictors in the model, only formal training on VAW and DV ( $\beta = -2.064, p < .001$ ) were determined to be statistically significant predictors of the scores for the Practitioner Lack of Control subscale.

Table 5

*Multiple Regression Analysis – Practitioner Lack of Control as DV*

		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
		B	Std. Error	Beta	<i>t</i>	Sig.	Tolerance VIF
1	(Constant)	23.779	5.028		4.730	<.001	
	DCDLD	.042	.176	.022	.237	.813	.909 1.100
	Gender	-1.144	.659	-.158	-1.735	.086	.932 1.073
	Age Group	.485	.297	.214	1.633	.106	.449 2.229
	Ethnicity	.209	.426	.046	.492	.624	.880 1.136
	Highest Degree	.289	.252	.141	1.149	.254	.509 1.966
	Type of Nurse	1.445	.878	.204	1.646	.103	.502 1.991
	Years in Practice	-.245	.213	-.157	-1.150	.253	.411 2.434
	Years Employed in Rural ER	-.322	.217	-.179	-1.483	.141	.527 1.899
	Employment Status	-.379	.718	-.048	-.528	.599	.934 1.070
	Type of ER	.055	.217	.023	.255	.799	.912 1.096
	Formal Training on VAW or DV	-2.064	.509	-.383	-4.052	<.001	.860 1.163
	Experience with Abuse	-1.181	.542	-.199	-2.179	.032	.918 1.089
	Disclosure						

a. Dependent Variable: Practitioner Lack of Control

b. Model Summary:  $F(12, 91) = 3.254, p = .001$ , Adjusted  $R^2 = .208$

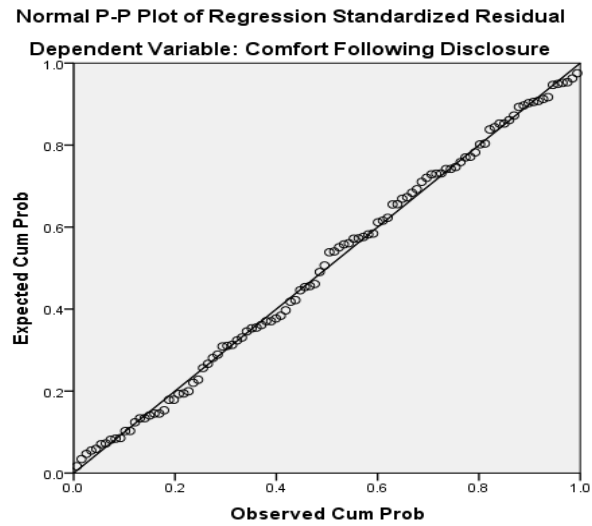


Figure 4.1. Assumption Testing Results – Normality (DV: Comfort Following Disclosure)

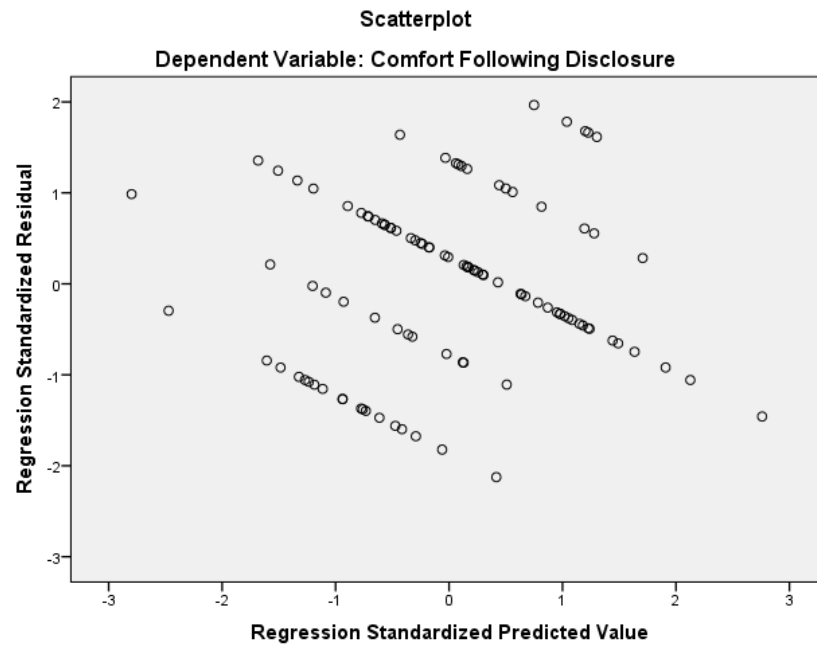


Figure 4.2. Assumption Testing Results – Homoscedasticity (DV: Comfort Following Disclosure)

Table 6 contains the results of the regression conducted using the Comfort Following Disclosure subscale as the dependent variable. Based on the results, it was determined that a statistically significant regression equation was found ( $F(12, 91) = 3.444, p < .001$ ), with an  $R^2$  of .222. Out of all the predictors in the model, the highest degree earned ( $\beta = -.243, p = .015$ ), the type of nurse ( $\beta = -.990, p = .005$ ), the type of ER ( $\beta = .168, p = .048$ ), and formal training on VAW/DV ( $\beta = .499, p = .013$ ), were determined to be statistically significant predictors of the scores for the Comfort Following Disclosure subscale.

Table 6

*Multiple Regression Analysis – Comfort Following Disclosure as DV*

		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
		B	Std. Error	Beta	<i>t</i>	Sig.	Tolerance VIF
1	(Constant)	5.734	1.948		2.944	.004	
	DCDLD	.064	.068	.086	.939	.350	.909 1.100
	Gender	.043	.255	.015	.170	.866	.932 1.073
	Age Group	.001	.115	.001	.007	.994	.449 2.229
	Ethnicity	-.233	.165	-.131	-1.413	.161	.880 1.136
	Highest Degree	-.243	.097	-.303	-2.490	<b>.015</b>	.509 1.966
	Type of Nurse	-.990	.340	-.357	-2.910	<b>.005</b>	.502 1.991
	Years in Practice	.020	.083	.032	.239	.812	.411 2.434
	Years Employed in Rural ER	.135	.084	.192	1.601	.113	.527 1.899

Employment Status	-.233	.278	-.075	-.839	.404	.934	1.070
Type of ER	-.168	.084	-.182	2.001	<b>.048</b>	.912	1.096
Formal Training on VAW or DV	.499	.197	.237	2.530	<b>.013</b>	.860	1.163
Experience with Abuse Disclosure	.392	.210	.169	1.868	.065	.918	1.089

a. Dependent Variable: Comfort Following Disclosure

b. Model Summary:  $F(12, 91) = 3.444, p < .001$ , Adjusted  $R^2 = .222$

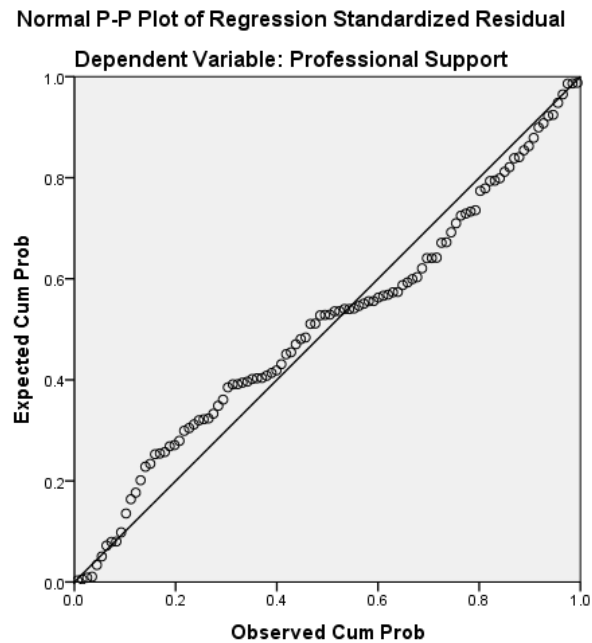


Figure 5.1. Assumption Testing Results – Normality (DV: Professional Support)



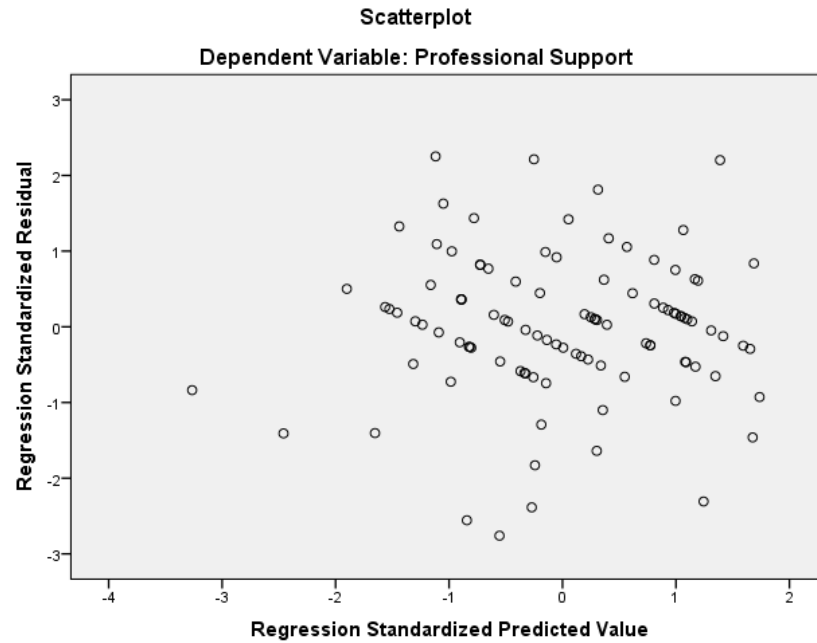


Figure 5.2. *Assumption Testing Results – Homoscedasticity (DV: Professional Support)*

Table 7 contains the results of the regression conducted using the Professional Support subscale as the dependent variable. Based on the results, it was determined that a statistically significant regression equation was found ( $F(12, 91) = 4.325, p < .001$ ), with an  $R^2$  of .279. Out of all the predictors in the model, the age group ( $\beta = .607, p = .006$ ), the type of ER ( $\beta = -.361, p = .024$ ), and formal training on VAW/DV ( $\beta = 1.853, p < .001$ ), were determined to be statistically significant predictors of the scores for the Professional Support subscale.

Table 7

*Multiple Regression Analysis – Professional Support as DV*

		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
		B	Std. Error	Beta	<i>t</i>	Sig.	Tolerance VIF
1	(Constant)	4.205	3.633		1.157	.250	
	DCDLD	.331	.127	.228	2.595	.011	.909 1.100
	Gender	-.298	.476	-.054	-.626	.533	.932 1.073
	Age Group	.607	.215	.353	2.826	<b>.006</b>	.449 2.229
	Ethnicity	-.188	.307	-.054	-.610	.543	.880 1.136
	Highest Degree	-.164	.182	-.106	-.902	.370	.509 1.966
	Type of Nurse	-.771	.634	-.144	- 1.216	.227	.502 1.991
	Years in Practice	-.279	.154	-.236	- 1.811	.073	.411 2.434
	Years Employed in Rural ER	-.150	.157	-.110	-.958	.341	.527 1.899
	Employment Status	.372	.519	.062	.717	.475	.934 1.070
	Type of ER	-.361	.157	-.201	- 2.300	<b>.024</b>	.912 1.096
	Formal Training on VAW or DV	1.853	.368	.454	5.034	<b>&lt;.001</b>	.860 1.163
	Experience with Abuse	.247	.392	.055	.629	.531	.918 1.089
	Disclosure						

a. Dependent Variable: Professional Support

b. Model Summary:  $F(12, 91) = 4.325, p < .001$ , Adjusted  $R^2 = .279$

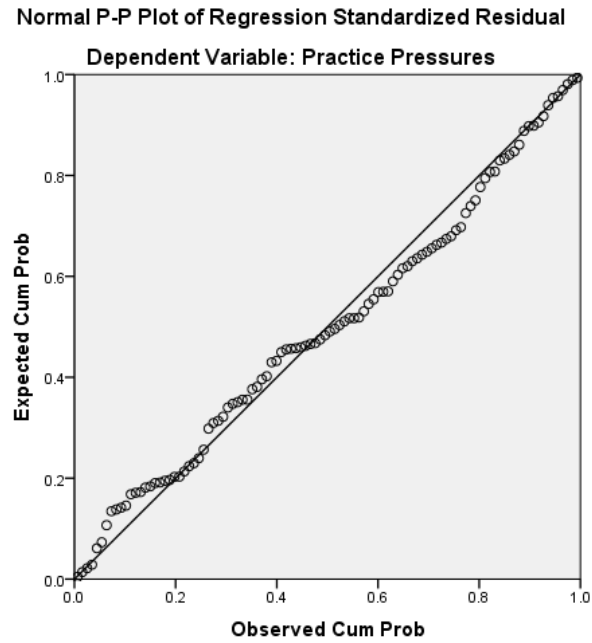


Figure 6.1. Assumption Testing Results – Normality (DV: Practice Pressures)

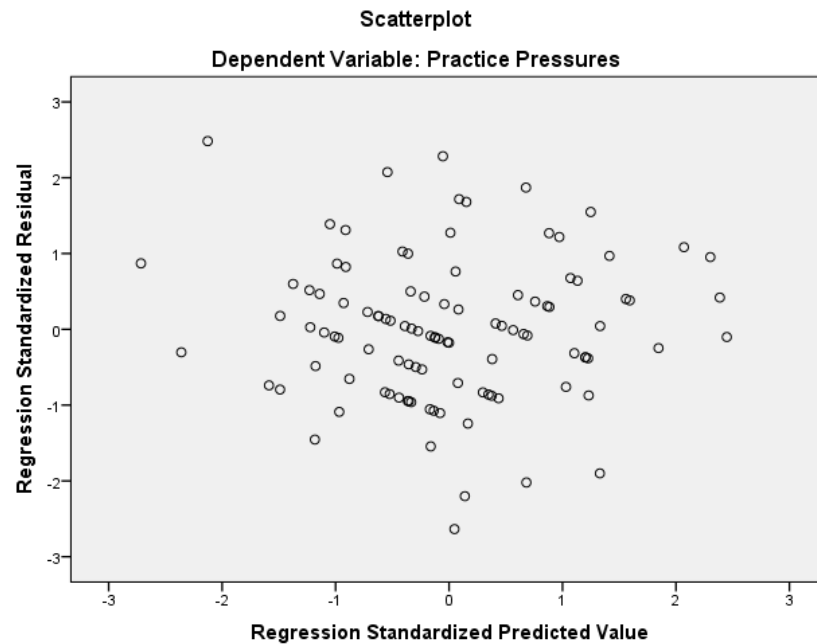


Figure 6.2. Assumption Testing Results – Homoscedasticity (DV: Practice Pressures)

Table 8 contains the results of the regression conducted using the Practice Pressures subscale as the dependent variable. Based on the results, it was determined that a statistically significant regression equation was found ( $F(12, 91) = 2.738, p = .003$ ), with an  $R^2$  of .168. Out of all the predictors in the model, the highest degree earned ( $\beta = .565, p = .010$ ) and formal training on VAW/DV ( $\beta = -.967, p = .029$ ), were determined to be statistically significant predictors of the scores for the Practice Pressures subscale.

Table 8

*Multiple Regression Analysis – Practice Pressures as DV*

		Unstandardized Coefficients Std.	Standardized Coefficients			Collinearity Statistics	
Model		B	Error	Beta	<i>t</i>	Sig.	Tolerance VIF
1	(Constant)	12.477	4.308		2.896	.005	
	DCDLD	.056	.151	.035	.373	.710	.909 1.100
	Gender	-.846	.565	-.139	-	.138	.932 1.073
					1.497		
	Age Group	.143	.255	.075	.561	.576	.449 2.229
	Ethnicity	.597	.365	.157	1.638	.105	.880 1.136
	Highest Degree	.565	.216	.330	2.622	<b>.010</b>	.509 1.966
	Type of Nurse	2.058	.752	.347	2.735	.008	.502 1.991
	Years in Practice	.010	.183	.007	.053	.958	.411 2.434
	Years Employed in Rural ER	-.170	.186	-.113	-.916	.362	.527 1.899
	Employment Status	-1.068	.615	-.161	-	.086	.934 1.070
					1.735		
	Type of ER	.168	.186	.085	.902	.370	.912 1.096
	Formal Training on VAW or DV	-.967	.436	-.215	-	<b>.029</b>	.860 1.163
					2.215		

Experience with								
Abuse	-.731	.465	-.148	1.574	.119	.918	1.089	
Disclosure								

a. Dependent Variable: Practice Pressures

b. Model Summary:  $F(12, 91) = 2.738, p = .003, \text{Adjusted } R^2 = .168$

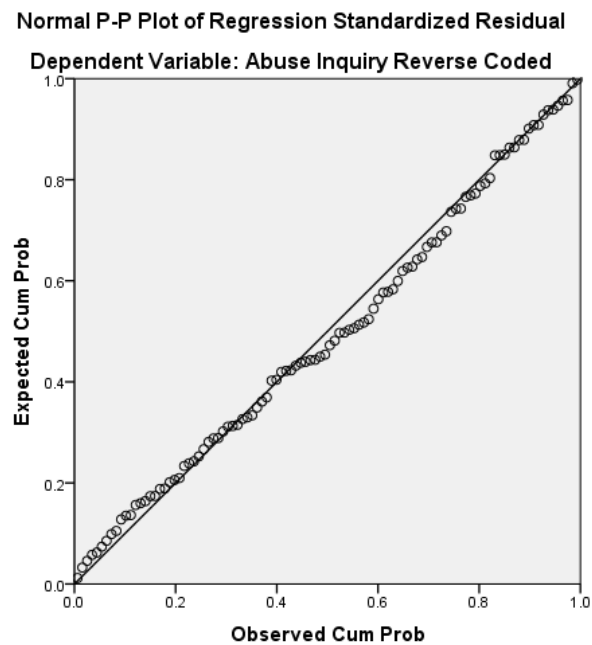


Figure 7.1. Assumption Testing Results – Normality (DV: Abuse Inquiry)

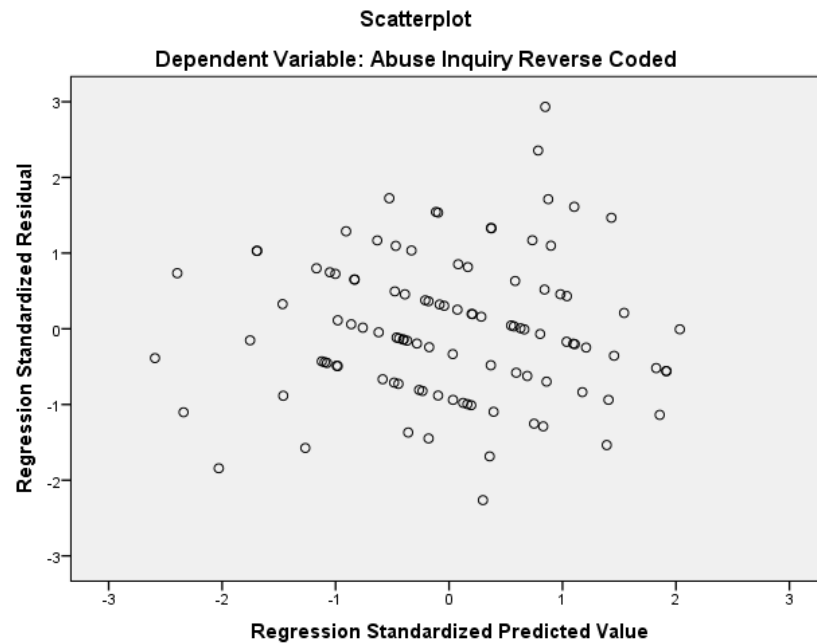


Figure 7.2. *Assumption Testing Results – Homoscedasticity (DV: Abuse Inquiry)*

Table 9 contains the results of the regression conducted using the Abuse Inquiry subscale as the dependent variable. Based on the results, it was determined that a statistically significant regression equation was not found ( $F(12, 91) = 1.664, p = .88$ ), with an  $R^2$  of .072. Out of all the predictors in the model, only the age group ( $\beta = -.419, p = .044$ ) was determined to be statistically significant predictors of the scores for the Abuse Inquiry subscale.

Table 9

*Multiple Regression Analysis – Abuse Inquiry as DV*

		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
		B	Std. Error	Beta	<i>t</i>	Sig.	Tolerance VIF
1	(Constant)	22.880	3.466		6.601	<.001	
	DCDLD	-.094	.122	-.077	-.772	.442	.909 1.100
	Gender	.680	.455	.147	1.495	.138	.932 1.073
	Age Group	-.419	.205	-.290	-2.047	<b>.044</b>	.449 2.229
	Ethnicity	-.454	.293	-.157	-1.547	.125	.880 1.136
	Highest Degree	-.243	.173	-.187	-1.403	.164	.509 1.966
	Type of Nurse	-1.115	.605	-.247	-1.841	.069	.502 1.991
	Years in Practice	.118	.147	.119	.805	.423	.411 2.434
	Years Employed in Rural ER	.251	.150	.220	1.680	.096	.527 1.899
	Employment Status	-.807	.495	-.160	-1.629	.107	.934 1.070
	Type of ER	.278	.150	.185	1.860	.066	.912 1.096
	Formal Training on VAW or DV	-.072	.351	-.021	-.204	.839	.860 1.163
	Experience with Abuse	.726	.374	.192	1.941	.055	.918 1.089
	Disclosure						

a. Dependent Variable: Abuse Inquiry Reverse Coded

b. Model Summary:  $F(12, 91) = 1.664, p = 0.88, \text{Adjusted } R^2 = .072$

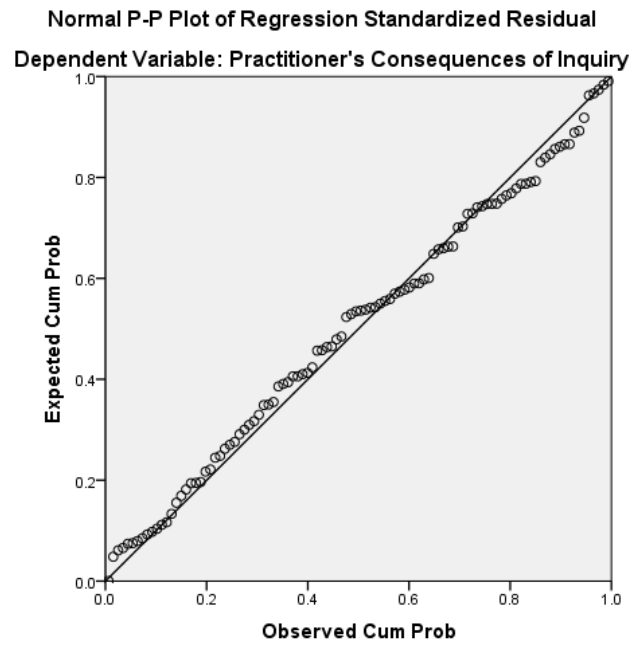


Figure 8.1. *Assumption Testing Results – Normality (DV: Practitioner's Consequences of Inquiry)*



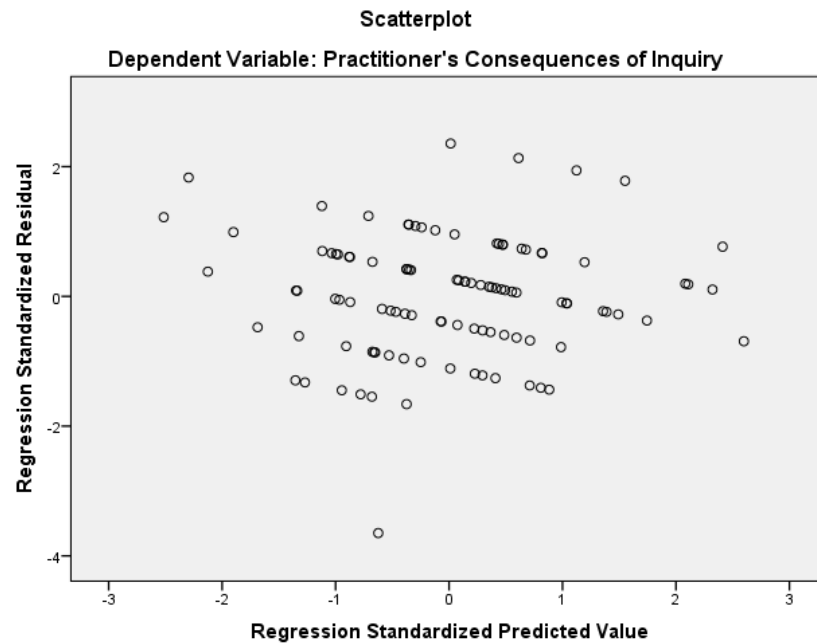


Figure 8.2. *Assumption Testing Results – Homoscedasticity (DV: Practitioner's Consequences of Inquiry)*

Table 10 contains the results of the regression conducted using the Practitioner's Consequences of Inquiry subscale as the dependent variable. Based on the results, it was determined that a statistically significant regression equation was not found ( $F(12, 91) = 1.200, p = .295$ ), with an  $R^2$  of .279. None of the independent variables in the proposed model were determined to be statistically significant predictors of the scores for the Practitioner's Consequences of Inquiry subscale.

Table 10

*Multiple Regression Analysis – Practitioner’s Consequences of Inquiry as DV*

		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
		B	Std. Error	Beta	<i>t</i>	Sig.	Tolerance VIF
1	(Constant)	5.603	3.019		1.856	.067	
	DCDLD	-.016	.106	-.015	-.151	.880	.909 1.100
	Gender	.016	.396	.004	.040	.968	.932 1.073
	Age Group	.210	.178	.171	1.177	.242	.449 2.229
	Ethnicity	.407	.256	.166	1.594	.114	.880 1.136
	Highest Degree	.164	.151	.148	1.084	.281	.509 1.966
	Type of Nurse	.921	.527	.240	1.746	.084	.502 1.991
	Years in Practice	-.141	.128	-.167	-1.101	.274	.411 2.434
	Years Employed in Rural ER	.069	.130	.071	.527	.599	.527 1.899
	Employment Status	-.208	.431	-.049	-.483	.630	.934 1.070
	Type of ER	.121	.130	.095	.930	.355	.912 1.096
	Formal Training on VAW or DV	-.597	.306	-.205	-1.953	.054	.860 1.163
	Experience with Abuse	-.157	.326	-.049	-.483	.631	.918 1.089
	Disclosure						

a. Dependent Variable: Practitioner’s Consequences of Inquiry

b. Model Summary:  $F(12) = 1.200$ ,  $p = 0.295$ , Adjusted  $R^2 = .023$ **Summary**

The purpose of this quantitative study was to determine if attitudes and emergency room practice factors influence screening for IPV by rural Texas ER RNs and

LVNs. Using the research questions of the study, eight regression models were proposed. The results of the multiple regression analysis procedures indicated that the proposed models using the following subscales as the dependent variable: Preparedness, Self-confidence, Practitioner Lack of Control, Comfort Following Disclosure, Professional Support, and Practice Pressures were statistically significant. Among the hypothesized independent variables, Age Group was determined to be a statistically significant predictor of Professional Support. The Highest Degree Earned was a significant predictor of scores for Preparedness, Self-confidence, Comfort Following Disclosure, and Practice Pressures. The Type of Nurse significantly predicted scores for Preparedness, Self-confidence, and Comfort Following Disclosure. The Type of ER was a significant predictor of Comfort Following Disclosure and Professional Support. Experience with Abuse Disclosures significantly predicted scores for Preparedness and Practitioner Lack of Control, and Formal Training on VAW/DV significantly predicted scores for Preparedness, Self-confidence, Comfort Following Disclosure, Professional Support, and Practice Pressures. The succeeding chapter contains a discussion of these findings in relation to current literature, its implications, and the recommendations made based on this study.

## CHAPTER V

### SUMMARY, DISCUSSION, AND RECOMMENDATIONS

This study collected data using the HCPS of IPV attitudes and practices to examine how descriptive variables and the DCDLD GEM scale predicted rural Texas ER nurse IPV screening attitudes and practices. One hundred ninety-seven rural Texas nurses responded, but only one hundred and five completed the survey. Only completed surveys were included in this study. The primary goal of this study was to determine if intrapersonal, social, and environmental factors influenced rural ER nurse IPV screening attitudes. Examination of the relationships between the populations' descriptive variables and DCDLD GEM scale as predictors of preparedness, self-confidence, professional support, abuse inquiry, nurse consequences of asking, comfort following disclosure, nurse lack of control, and nurse practice factors were performed. Several descriptive variables were identified as statistically significant predictors of the Texas Rural ER nurse IPV attitudes and practices and will be discussed in the summary of the findings.

#### **Summary of Findings**

This study measured how descriptive variables and the DCDLD GEM scale predicted rural Texas ER nurse preparedness, self-confidence, professional support, abuse inquiry, nurse consequences of asking, comfort following disclosure, nurse lack of control, and nurse practice factors. Rural Texas ER nurse age group, education level, type of nurse, experience with abuse disclosures, formal training, and the type of ER the nurse worked in were found to be predictors of IPV attitudes and practices in this study, thus

rejecting the null hypothesis. These predictors were consistent with what was found in the review of literature. However, numerous other descriptive variables did not have a significant effect on total scores and subscale scores of the HCPS indicating the null hypothesis was not 100% rejected in this study. Abuse inquiry and practitioner consequences of inquiry were not significantly predicted by any of the descriptive variables or DCDLD of the Gender Equitable men subscale. This finding supported the null hypothesis. Additionally, the DCDLD GEM scale was not found to be a significant predictor of any of the dependent variables within the study further supporting the null hypothesis. In this section the study findings and relevant literature are discussed.

### **Preparedness**

Highest degree earned, type of nurse, formal training in domestic violence, and experience with abuse disclosures were all predictors found to be significantly influential on rural Texas ER nurse preparedness. In this study, eighty six percent of the nurses were RN's and 84% of the nurses had an associate degree or higher. In addition, forty eight percent of the nurses who participated in the study had formal training. These findings were consistent with the literature because nurses with higher levels of education have been found more likely to have received IPV education (Natan & Rais, 2010). Additionally, emergency room professionals with common practices, written procedures, and training about these procedures demonstrated increased IPV intervention in one study of 950 emergency room

department professionals (Leppäkoski & Paavilainen, 2013). The literature also indicated education and experience had a positive influence on nurse IPV screening behavior in urban and suburban environments (Chapin, et al., 2011; Hamberger et al., 2004; Hinderliter et al., 2003; Knapp et al., 2006). Education and training helps the nurse to feel prepared and was found to increase IPV victim intervention (Davila, 2006; Leppäkoski & Paavilainen, 2013).

Experience with disclosure of abuse was also a predictor of rural Texas ER nurse preparedness. A lack of experience has been cited as a major barrier to IPV screening in the current literature. This study supported the literature that experience was a predictor of nurse preparedness. Skills and experience were also found to be significant influences for IPV screening in the current literature further supporting this finding (Davila, 2006, Ellis, 1999). Furthermore, the type of nurse and highest degree earned are likely predictors for IPV screening practices as advanced degrees may offer expanded education in the area of abuse. Natan and Rais (2010) found 19.5% of nurses received IPV training in advanced coursework and 14.1% were educated about IPV in advanced degrees. Thus, this study's findings that education, training, and experience with abuse disclosure predicted rural Texas ER nurse preparedness coincided with existing literature and was an expected finding.

It was surprising years in practice was not influential on preparedness in this study. Most of the nurses surveyed had more than two years' experience and have been employed in a rural ER 5-9 years. Sample size could have been a factor; as well as, other

confounding variables. It would be presumed years in practice would expose a nurse to more IPV disclosures thus influencing preparedness. However, if the nurse is not inclined to routinely ask about abuse it could result in less exposure to IPV disclosures. For instance, one study of mid-sized ERs in the literature indicated only 25% of IPV victims were asked about abuse despite victims' support for IPV screening (Glass, et al., 2001). Professional associations support routine IPV screening, but previous research has indicated not all nurses routinely screen for IPV due to various factors that may include institutional policies, social factors, or intrapersonal factors (American College of Emergency Physicians, 2016; American Medical Association, 2009; Emergency Nurses Association, 2013). These research findings further support the insinuation that a lack of IPV screening by rural nurses participating in this study would decrease exposure to IPV victims despite years of practice in nursing, therefore influencing preparedness.

### **Self-Confidence**

In this study of rural ER nurses, the highest degree earned, type of nurse, and formal training predicted self-confidence in IPV screening. The majority of the nurses in this study were RNs, had associate degrees, and at least 48% had formal training about IPV. This finding was expected since previous studies have indicated education and training were predictors of nurse self-efficacy. Chapin, Coleman, and Varner (2011) noted that nurses and medical students reported greater self-efficacy after a domestic violence center provided training about IPV screening. Other studies further support level of education and IPV training as direct predictors of nurse response, self-efficacy, and

skill in IPV identification (Ambuel et al., 2013; Bournsnel & Prosser, 2010; Hamberger et al., 2004; Natan & Rais, 2010). If nurses have availability of information about IPV screening there is a positive influence on IPV screening practices further asserting how education influences IPV screening (Hollingsworth & Ford-Gilboe (2006). Furthermore, other studies demonstrated nurses with experience have increased self-efficacy in IPV screening (Chapin, et al., 2011; Ellis, 1999; Gutmanis et al., 2007; Hollingsworth & Gilboe, 2006). Thus, the findings that education and training influence rural Texas ER nurse IPV screening support the current literature.

Experience with abuse disclosure was unexpectedly not found to be a predictor of nurse self-confidence in this study's population. In this study, seventy four percent of the nurses had experience with abuse disclosure and most had more than two years of nursing experience. It is possible sample size, personal, or environmental factors may have been influential on experienced rural ER nurses in this study. The literature suggested experienced or older nurses were more likely to screen for IPV, which was not found to be true in the rural ER nurse population in this study (Ellis, 1999).

Other studies also found clinical experience with IPV victims positively affected self-efficacy and length of RN practice experience was positively related to self-efficacy in IPV screening (Hamberger et al., 2004; Hollingsworth & Gilboe, 2006). In one qualitative study of experienced nurse midwives who typically ask about IPV, personal interest in the topic was an important factor of routine IPV screening; as well as, factors easing IPV screening (Henriksen, Garnweidner-Holme, Thorsteinsen, & Lukasse, 2017).



Another study of advanced practice nurses who have cared for IPV victims described how the nurses felt cynical and frustrated with the cycle of abuse indicating this may also be a factor influencing attitudes of experienced nurses screening for IPV (Brykczynski, Crane, Medina, & Pedraza, 2011).

### **Practitioner Lack of Control**

Formal training was found to be the only predictor of practitioner lack of control in this study. In this study, forty eight percent of the nurses reported formal training in IPV. This finding was anticipated because nurses who have had training feel more confident in screening for IPV and making referrals for IPV victims. According to the literature, formal training about IPV gives nurses the tools to make them feel like they are more in control of the situation (Hamberger et al., 2004; Hinderliter et al., 2003; Knapp et al., 2006; O'Campo et al., 2011). A study of public health nurses suggested that readiness rather than experience led to more successful interactions with IPV victims which would support why formal training rather than experience predicts preparedness (Webster, Bouck, Wright, & Dietrich, 2006). This finding insinuated a prepared nurse was more likely to be able to manage and control the situation. In addition, the research indicated formal training offers familiarity of IPV resources and IPV screening skills that allowed more control in IPV screening situations (Davila, 2006; Gadowski et al., 2001). Thus, this study's finding that formal training predicted practitioner lack of control is not unexpected.

It was unanticipated that experience with abuse disclosure was not a predictor of practitioner lack of control. In this study, seventy four percent of the nurses had experience with abuse disclosure. Current research has supported experience as a predictor of healthcare practitioner's feeling more in control with routine abuse inquiry (Gutmanis et al., 2007). Nursing experience did not predict feelings of control in rural Texas ER nurses in this study. It is possible the feelings the nurses experienced with abuse disclosure adversely affected their feelings of control or sample size could have been a contributor to this finding. Factors such as presence of the IPV victim's partner during treatment and the tendency of women to return to their partner despite repeated IPV may influence practitioner's feeling about lack of control (Beynon et al., 2012). Emotional difficulties after an abuse disclosure could also have significant impact on experienced nurses. One study indicated emergency nurses experienced disruptive feelings and recurrent emotional issues after a disclosure of abuse which presumably would not leave nurses feeling in control (Van der Wath, Van Wyk, & Janse van Rensburg, 2013). Thus, other variables or sample size may have influenced this study's findings that experience did not influence practitioner lack of control.

### **Comfort Following Disclosure**

Highest degree earned, type of nurse, type of ER, and formal training were found to be predictors of comfort following disclosure. It was expected that formal training and nurse education would predict comfort following disclosure. The majority of the participants in this study were RNs, participants with associate degrees and had formal

training in IPV. The current literature indicated IPV training, type of nurse, and nurse education helped nurses support each other and be comfortable or secure in their response to IPV by giving them the tools they need to respond (Ambuel et al., 2013; Boursenell & Prosser, 2010; Hamberger et al., 2004). Familiarity with IPV resources increased comfort and confidence with disclosures of abuse further supporting training as a facilitator of comfort following disclosure (Gadmoski et al., 2001). Other studies also found increased comfort and understanding of importance of IPV referrals when training is provided to nurses (Hamberger et al., 2004; Hinderliter, et al., 2003; Knapp et al., 2006; O'Campo et al., 2011; Plunkett, 2009; Short et al., 1997; Smith, et al., 1998; Yildiz, et al., 2014). Thus, education and training are prevalent findings in the literature increasing comfort following abuse disclosure.

The current literature discussed urban, suburban, and rural emergency rooms without breaking down the type of facilities (i.e., profit vs. nonprofit); therefore, it is difficult to rationalize how the different types of rural ERs (governmental, church, nonprofit, and profit organizations) would influence comfort following disclosure. Other variables or sample size may have been influential in this study's findings. The current literature indicated rural nurses are not typically offered support as IPV victim advocates which may influence their comfort following disclosure (Davis & Harsh, 2001; Evanson, 2006; Hughes, 2010). A few other studies indicated rural ERs had less resources, less nurse support, and less onsite violence advocacy when compared to urban ERs, which presumably could also influence comfort of the nurses following IPV disclosure (Choo et

al., 2011; Edwards, 2015). IPV training and approach to abuse disclosure in rural ER's examined in this study may be similar, leading to the findings in this research. Thus, it was not surprising formal education about IPV and education level of rural Texas ER nurses influenced comfort following disclosure of abuse; however, no current literature supports why type of ER would be a predictor of comfort following disclosure.

### **Professional Support**

Age group, type of ER, and formal training about IPV predicted nurse professional support. Age and type of ER as predictors were unexpected findings in this study and sample size may have contributed to this finding. The majority of the nurses in this study were between thirty and fifty-nine years old and 48% has formal training. Age group in this study may have influenced nurse professional support based on previous experience with IPV. The current literature does not specify how age group influences nurse professional support, although one study suggested more experienced or older nurses were more likely to screen for IPV, which was thought to be related to the nurses' age and more opportunities to attend in-services over time thus increasing self-efficacy (Ellis, 1999). Therefore, presumably it could be from increased self-efficacy or experience in dealing with IPV.

The type of rural ER also predicted nurse professional support in this study. The majority of the nurses who participated in this study worked in a nonprofit ER. Rural ER's may provide a more supportive environment for nurses screening for IPV. Additionally, rural ER staff frequently have close relationships leading to more

professional support overall. Bushy (2006) described how rural nurses know everyone in town including their families, friends, and misfortunes, which presumably leads to a more supportive environment among nursing staff when compared to urban nursing environments. However, sample size may have influenced this finding along with other variables so more research would have to be done to determine how type of ER is influential on nurse professional support. Most research delineates ER types by rural, urban, or suburban facilities. The literature available indicated rural ERs have less education about IPV victim advocacy than urban ERs, which could be an influential factor on professional support (Choo et al., 2011). Thus, this finding that type of ER predicts professional support would lead the researcher to think all types of ERs would lack professional support resulting from a lack of education on how to support each other after a disclosure making type of ER an unexpected predictor in this study.

Formal training also predicted professional support in this study. Forty eight percent of the participants in this study had formal training in IPV. Training can influence nurse support and response to IPV. A lack of support after IPV disclosure was found to be a significant barrier to IPV screening in the current literature. One study found rural nurses need emotional support after abuse disclosure due to difficulty maintain patient-nurse boundaries and a lack of privacy in rural communities (Evanson, 2006). Another study found when nurses have formal training and help resources or support to assist IPV victims increased IPV victim intervention occurred (Leppäkoski & Paavilainen, 2013). Training in common practices and procedures also produced a supportive work

environment for nurses (Leppäkoski & Paavilainen, 2013). Thus, it is not surprising formal training predicted nurse professional support of IPV screening.

### **Practice Pressures**

The highest degree earned and formal training were significant predictors for practice pressures in this study. The majority of the nurses had associate degrees and 48% had formal training. The literature suggested rural communities experience unique problems such as a lack of resources and training that coincided with the findings of this study that formal training predicts practice pressures (Cox et al., 2001; Davila, 2006; Evanson, 2006). Nurses with advanced training are more likely to have additional intimate partner violence training, which gives them the tools to manage and address IPV (Natan & Rais, 2010). Additionally, studies in urban or suburban areas suggested nurses who are educated, prepared to screen for IPV, and knowledgeable of resources are better able to respond and manage the practice pressures related to IPV screening (Ambuel, 2013; Hollingsworth & Ford-Gilboe, 2006). Thus, highest degree earned and formal training as predictors of practice pressures was an expected finding and supported the literature.

It was surprising the type of rural ER was not a predictor for nurse practice pressures because it would be anticipated a nonprofit ER would allow more time for violence advocacy than a for profit facility. The majority of nurses in this study worked in a nonprofit rural ER. Several studies cited a lack of time and privacy were barriers for IPV screening supporting the assertion type of ER would predict practice pressures

(Beynon et al., 2012; Williams et al., 2017). Assessing for IPV is known to be a time-consuming task and requires careful questioning to identify potential victims (Ellis, 1999; Beynon et al., 2012; Williams et al., 2017). However, no literature comparing types of rural ERs and the influence on practice pressures were found. Thus, more research into type of ER and the relation to practice pressure would be advised.

### **Abuse Inquiry and Practitioner Consequences of Inquiry**

A statistically significant regression equation was not found for abuse inquiry or practitioner consequences of inquiry. Characteristics or confounding variables within the population surveyed may have caused the lack of statistical significance in the regression equation. The lack of predictors for abuse inquiry and practitioner consequences of inquiry were surprising. The literature indicated nurses with more experience or formal training were more likely to inquire about abuse (Breiding et al., 2009; Hollingsworth & Ford-Gilboe, 2006). Additionally, current literature indicated dealing with IPV in rural communities caused rural nurses to feel helpless and frustrated due to a lack of resources (Annan, 2002; Cox et al., 2001; Davila, 2006; Hughes, 2010). It is possible the descriptive variables such as experience, education, and length of practice of the rural nurse do not influence the consequences of inquiry and are nonmodifiable variables in relation to barriers rural ER nurses must face in IPV screening. For instance, once nurses inquire about the abuse they must face a lack of resources which experience and training cannot modify simply because the resources do not exist. Lastly, sample size may have been a factor in the lack of statistically significant regression equation. The Raosoft

calculator indicated a sample size of 251 RNs and 179 LVNs was needed to reach a confidence level of 90% with a 5% margin of error. Thus, other confounding variables and sample size may have influenced the lack of a statistically significant regression equation for abuse inquiry and practitioner consequences of inquiry, which may need to be accounted for in future research design or implementation.

### **Gender Roles and Rural ER Nurses**

Interestingly, there was no relationship between attitudes about women's and men's roles and rural Texas ER nurses' IPV screening practices and attitudes in this study. Other variables or sample size may have impacted predictors of gender roles in rural ER nurses within this particular study. The literature had suggested rural nurse's patriarchal attitudes may influence IPV screening attitudes and practices. Given the lack of timely research about gender norms and rural nurse IPV screening it is difficult to say if there has been a change in perception of gender norms in today's rural environment which may have influenced this predictor. This particular study did not implicate a connection between attitudes toward gender norms and any IPV attitudes or practices of rural ER nurses.

This finding was significant because attitudes toward gender norms have been suggested to have a negative influence on nurse IPV screening in the current literature (DeKeseredy, 2015; Johnson et al., 2007). Additionally, rural nurses have been found to experience challenges caring for IPV victims due to traditional stereotypical roles (Annan, 2008; Johnson et al., 2007; Peek-Asa et al., 2011; Sandberg, 2013). Therefore,



this study supported the null hypothesis that gender norms and social expectations of men and women did not have an influence on rural Texas ER nurse's attitudes and practices. Although this finding was not expected, it is reassuring rural nurses in this study do not appear to be allowing views on gender norms to influence their attitudes or practices for IPV screening, which is contrary to what the limited literature available indicated.

### **Summary**

Several variables such as the type of ER, the highest degree earned, formal training, and the type of nurse had a significant influence on rural Texas ER nurses' preparedness, self-confidence, and comfort following disclosure. According to Bandura's (1989) social cognitive theory a nurse's environment, social factors and self-efficacy are presumed to be determinants of their attitudes and practices concerning IPV screening. This particular study found the type of ER environment was a significant influence on rural nurse IPV screening attitudes. Emergency rooms with common practices and procedures have increased IPV intervention (Leppäkoski & Paavilainen, 2013; Schoening et al., 2004). In addition, formal training significantly predicted preparedness, self-confidence, practitioner lack of control, comfort following disclosure, professional support, and practice pressures in this study.

Experience was the only predictor found to be significantly influential on rural Texas ER nurse preparedness in this study. Hollingsworth and Gilboe (2006) also found length of RN practice experience was positively related to self-efficacy in IPV screening.

Another study further substantiated these findings, Chapin, et al. (2011) noted nurses and medical students reported greater self-efficacy after a domestic violence center provided training about IPV screening. Previous literature suggested educational programs appear to have a positive influence on IPV screening in nurses. This study found more experienced nurses were more likely to be prepared than the inexperienced nurses. This finding supports the literature that nursing experience increases self-efficacy in IPV screening (Chapin, et al., 2011; Ellis, 1999; Gutmanis et al., 2007; Hollingsworth & Gilboe, 2006). Experience comes from both abuse disclosure and formal training. Since formal training did have significant influence on 6 out of 8 of the dependent variables this study supported the literature suggesting there are positive effects of staff training on IPV screening practices and attitudes. Thus, several descriptive variables of Texas rural nurses had significant influence on the dependent variables in this study.

### **Conclusions**

Based on the findings of this study, intrapersonal, environmental, and professional practice factors do influence screening for IPV by rural Texas ER registered and licensed vocational nurses. Several descriptive variables were predictors of preparedness, self-confidence, practitioner lack of control, comfort following disclosure, professional supports, and practice pressures. The only dependent variables not predicted by the rural nurse descriptive variables were abuse inquiry and practitioner consequences of inquiry. Additionally, the DCDLD GEM scale did not predict any of the dependent variables, indicating gender roles do not influence rural nurse IPV screening attitudes or practices.

This research supported the null hypothesis that rural Texas ER nurses' descriptive variables would not predict abuse inquiry and practitioner consequences of inquiry. However, the null hypothesis that rural Texas ER nurses' descriptive variables would predict for preparedness, self-confidence, practitioner lack of control, comfort following disclosure, professional supports, and practice pressures was rejected.

### **Study Limitations**

Several limitations were encountered in this research study. This study utilized a convenience sample with voluntary participants from Texas rural emergency rooms thus limiting the generalizability of the findings. Sample size was potentially a factor because the Raosoft calculator (2016) recommended a sample size of 251 RNs and 179 LVNs to reach a confidence level of 90% with a 5% margin of error. Sampling bias was also encountered as evidenced by a low representation of LVNs, a low representation of minorities, and a low number of male participants in this particular sample. Additionally, the participants were asked to self-report their responses in a standardized format which limited capturing the complexity of nurse experiences in screening for intimate partner violence.

Survey research methodology allows one to gain knowledge about "activities, beliefs, preferences, and attitudes through direct questioning" (Polit & Hungler, 1999). The survey questions asked about domestic abuse training but did not elaborate on the duration or type of training the nurse received, which could influence their response to IPV. Also, many participants who started the survey did not finish for reasons unknown,

thus limiting the sample size to less than the initial desired number of participants. However, it is not uncommon to have 10-15% response rate for online surveys (Survey Monkey, 2018). This study also had limited generalizability secondary to rural Texas nurses being the only area surveyed. Ideally, a multi-state survey with a more diverse rural nurse population would be performed to increase generalizability. Consequently, caution is advised when applying these study findings to rural ER nurses overall.

### **Implications for Research**

Several recommendations for future research are suggested based on the outcomes of this study. Since research is limited in the realm of rural nursing and IPV screening, multi-state research is advised to increase knowledge of screening practices and increase generalizability of the findings. Extending the population to include multiple rural ER sites and multiple states decreases the risk of spurious results and increases generalizability of the study (Polit & Beck, 2012). More research is also needed on the impact years in practice, highest degree earned, and rural nurse level of education influence IPV screening attitudes and practices. Education, experience, and formal training are known factors to influence nurse screening, but research in rural nurses is limited (Alsabhan et al., 2011; Ambuel, 2013; Annan, 2008; Beynon et al., 2012; Choo et al., 2011; Davila, 2006; Davis & Harsh, 2001; Deboer et al., 2013; Leppäkoski & Paavilainen, 201; Ritchie et al., 2009; Yonaka, et al., 2007). It would be interesting to know how advanced degrees and experience impact rural nurse IPV screening practices. Advanced degrees and experienced are both known to have influence on nurses, but

research on rural nurses is lacking (Natan & Rais, 2010). Research and evaluation of the impact of policies mandating IPV screening in rural ERs and the impact on rural nurse IPV screening and referral practices would also be advisable. Procedures and policies are known to impact nurse IPV screening (Leppäkoski & Paavilainen, 2013; Schoening et al., 2004). Further research about how the types of rural ERs impact rural nurse IPV screening may also provide valuable information as to how the environment influences IPV screening.

Another area of interest for future research would be health educator development and evaluation of formal education programs about IPV in rural communities for rural nurses. Studies implementing IPV training modules directed at rural nurses with pre and post-testing would provide valuable insight into how training impacts the rural nurse population. From the literature, it is evident nurses want training and benefit from formal training; however, information about training programs and rural nurses is scarce (Alsabhan et al., 2011; Ambuel, 2013; Annan, 2008; Beynon et al., 2012; Choo et al., 2011; Davila, 2006; Davis & Harsh, 2001; Deboer et al., 2013; Leppäkoski & Paavilainen, 201; Ritchie et al., 2009; Yonaka, et al., 2007). Training programs in other studies have shown a 53% increase of awareness in institutional policies on IPV screening, 46% decrease in nurse's lack of knowledge, and an overall improved knowledge and attitudes about IPV (Campbell et al., 2001; Schoening et al., 2004). Thus, more research concerning the health education needs and formal training programs about IPV are needed to improve the outcomes of IPV victims.

Gaining more current information about gender norms and rural nurses would also be advisable. Most of the research found about gender norms is outdated. However, research that is available about gender norms indicated rural IPV victims and rural nurses experience problems with patriarchal values which impede both help seeking and IPV screening (Annan, 2008; Dekersedy, 2015; Johnson et al., 2007; Peek-Asa et al., 2011; Sandberg, 2013). It would be advisable to further explore both IPV victims and rural nurse attitudes and perceptions about gender norms. IPV victims have reported traditional gender roles as a factor in help seeking behavior (Annan, 2008; Riddell et al., 2009; Van Hightower et al., 2002; Wendt & Cheers, 2002). It is suspected patriarchy may still exist in rural communities. It is more likely for rural nurses to know the families, which impacts IPV reporting or disclosure by the victim. Rural nurses report they have difficulty with professional-personal boundaries with IPV victims and there is increased public awareness of personal affairs in rural communities (Evanson, 2006). It would be interesting to conduct a qualitative study about both rural nurse and rural IPV victims' experiences with local community members, safety issues, and police following an IPV disclosure to obtain the full perspective. More current research within the domain of gender norms in rural communities needs to be explored.

### **Implications for Health Education**

The literature has repeatedly suggested formal education in suburban and urban ERs improves outcomes in nurse IPV screening attitudes and practices time. A three-hour training course about IPV for nurses who had not had previous training and a one-hour

training course about IPV for nurses with previous training improved nurse IPV screening attitudes significantly in Schoening et al. (2004) study. Additionally, other past research studies supported implementation of formal health care professional IPV training. Hamberger et al (2004) administered a three-hour domestic training program to 752 healthcare providers and six months after the training was completed the healthcare providers had increased self-efficacy, increased comfort in making referrals, and noted an increased valuation of their role and the role of the hospital in IPV prevention. Ambuel et al. (2013) also implemented an intervention module to improve inquiry, intervention, and prevention of IPV targeting healthcare providers attitudes, knowledge, clinical skill, and clinical behavior, as well as clinical systems. This intervention was also found to be an effective strategy for increasing knowledge about IPV in health care providers. The Healthcare Can Change from Within intervention module group nurses experienced increased self-efficacy, increased understanding of referral resources, understanding of legal issues, increased patient education and increased documentation of IPV that was sustained two years after implementation (Ambuel et.al, 2013). Thus, formal education about IPV has been found to have significant impact on nurses.

This study further supported the finding that training improved screening attitudes and demonstrated formal education was a predictor for rural Texas ER nurse preparedness, self-confidence, practitioner lack of control, comfort following disclosure, professional support, and practice pressures. Formal education predicted six of the eight dependent variables in this study signifying IPV screening education should be first and

foremost on the agenda. Health educators can use a training program to educate rural nurses about IPV screening and then evaluate the outcome of the educational program. This allows the educator to refine the program and develop an end product that provides the best health education about IPV to rural nurses. Health educators can research continuing education programs aimed at nurse IPV screening to provide a framework for health education development for rural nurses. Many studies support formal education programs for nurses about IPV and they have shown to be beneficial to IPV screening practices.

Past education programs have used didactic content and discussion facilitation as training methods (Hamberger et al., 2004; Schoening, 2004). The Family Peace Project comprehensive training program discussed the prevalence, the signs of IPV, what IPV is, what psychosocial or physical injuries and IPV victim may have, legal/ethical issues, and video-taped interviews with IPV victims (Hamberger et al., 2004). In addition, the Family Peace Project taught skills and techniques in how to illicit information from an IPV victim and how to offer IPV victims support and safety planning (Hamberger et al., 2004). This particular program found increased self-efficacy, increased comfort in making referrals, and noted an increased valuation of their role and the role of the hospital in IPV prevention six months after the intervention. Similar programs can be developed using electronic means.

The development of a computer based continuing education module using current research as a guide and collaboration with rural nurses and rural IPV victim resources is



recommended. This continuing education program about IPV screening, identification, and referral can be given to all nurses working in selected rural emergency rooms. The computer training course will be designed to help the nurses build personal competence and self-efficacy in caring for IPV victims. The CDC (2015) stated effective curriculums discuss the importance or relevance of a skill, present steps for developing the skill, and provide real life scenarios to practice the skill. During the computer training rural nurses will be informed of the incidence of IPV in rural communities, discuss the steps in IPV screening, identification, and referral, and be provided with scenarios to assess which involve potential IPV victims. All of which help promote preparedness and self-confidence.

A computer-based educational activity would be an ideal mode of communication due to ease of use and increased accessibility for training nurses in rural communities. Technology has increased the ability to reach remote populations and provide valuable education. Additionally, a computer assessment will allow the pre and post-test to be easily administered. Rural nurses value the ability to access online learning anytime as long as the learning modules are easily accessible (Riley & Schmidt, 2016). In addition, online learning improves access for rural nurses (Place, MacLeod, John, Adamack, & Lindsey, 2012; Riley & Schmidt, 2016). Both urban and rural nurses have positive perceptions about online continuing education and other online educational topics have successfully impacted healthcare providers practice (Dunet, Reyes, Grossniklaus, Volansky, & Blanck, 2008; Edwards, et al., 2015; Karaman, 2011; Wallner, Kendall,

Hillers, Bradshaw, & Medeiros, 2007). One study found nurses working in hospitals had more optimistic perceptions of online learning than other types of facilities (Karaman, 2011). The knowledge and skills of the nurses will be measured using the structured self-administered questionnaire Health Care Provider Survey of IPV Attitudes and Practices and a structured demographic questionnaire created by the researcher in both pre and post testing (Gutmanis et al., 2007). Measuring the knowledge and skills of the nurses would allow the health educator to identify and target what attitudes and practices rural nurses have; therefore, detecting what rural ER nurse IPV education is essential.

The trend in the literature reinforces the assertion that increased education creates proactive nurses whom can identify victims of IPV. Kaye, Mirembe, and Bantebya (2005) gave 48 health professionals a questionnaire to test knowledge of the respondents. 41.6% of the respondents strongly disagreed that they had received enough training to manage victims of IPV. The current literature's suggested screening of possible IPV victims is directly related to the knowledge and skill of the person assessing them. Goff, Byrd, Shelton, and Parcel (2001) surveyed healthcare providers and found being prepared to treat IPV victims had a direct correlation with IPV screening. Several studies have demonstrated improvement in knowledge of IPV after completion of an education module further substantiating the use of continuing education like the one described to enhance IPV screening practices (Davila, 2006; Schoening et al., 2004; Yildiz, et al., 2014). Furthermore, this study identified formal training as a predictor in six out of the eight dependent variables making it the most logical initial approach in rural nurse IPV

screening education. Thus, the findings of this study can be utilized to develop much needed formal education for rural nurses in order to impact IPV screening attitudes and practices, increase rural ER response to IPV, and impact environmental factors such as rurality and hospital issues.

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## APPENDIX A

Table 1 Health Care Provider Survey of Intimate Partner Violence Attitudes and Practices

<b>Subscale</b>	<b>Items</b>	<b>Cronbach's Alpha</b>
Preparedness	4,11,17,18,19,21,27,32	0.87
Self-confidence	5,14,16,23,31,34,48	0.79
Practitioner lack of control	3,6,8,9,12,25,45	0.79
Comfort following disclosure	29,30	0.77
Professional supports	33,47,49,50	0.74
Practice pressures	15,36,40,42,43	0.73
Abuse inquiry	7,13,22,24,26,35,39	0.71
Practitioner consequences of inquiry	37,41,44	0.59

(Gutmanis, et. al, 2007).

## Appendix B

Table 2 from the Gender Equitable Men Scale

<b>Subscale</b>	<b>Items</b>	<b>Cronbach's Alpha</b>
Domestic Chores and Daily Life Domain Subscale	10,20,28,38,46	0.81

(Nanda, 2011).



**Institutional Review Board**

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DATE: May 26, 2017

TO: Ms. Christine Heady  
Health Studies

FROM: Institutional Review Board (IRB) - Denton

*Re: Exemption for Factors Influencing Intimate Partner Violence Screening by Rural Texas  
Emergency Room Nurses (Protocol #: 19595)*

The above referenced study has been reviewed by the TWU IRB (operating under FWA00000178) and was determined to be exempt from further review.

If applicable, agency approval letters must be submitted to the IRB upon receipt PRIOR to any data collection at that agency. Because a signed consent form is not required for exempt studies, the filing of signatures of participants with the TWU IRB is not necessary.

Although your protocol has been exempted from further IRB review and your protocol file has been closed, any modifications to this study must be submitted for review to the IRB using the Modification Request Form. Additionally, the IRB must be notified immediately of any adverse events or unanticipated problems. All forms are located on the IRB website. If you have any questions, please contact the TWU IRB.

cc. Dr. Roger Shipley, Health Studies  
Dr. Mandy Golman, Health Studies  
Graduate School