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INTERPERSONAL DEPENDENCY AND SELF-EFFICACY ON INTENTION TO RETURN  
TO A DOMESTICALLY VIOLENT RELATIONSHIP AMONG LOW-INCOME WOMEN

by

Erin N. Jenkins

A dissertation submitted to the Graduate College  
in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy  
Counselor Education and Counseling Psychology  
Western Michigan University  
April 2017

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# INTERPERSONAL DEPENDENCY AND SELF-EFFICACY ON INTENTION TO RETURN TO A DOMESTICALLY VIOLENT RELATIONSHIP AMONG LOW-INCOME WOMEN

Erin N. Jenkins, Ph.D.

Western Michigan University, 2017

An interesting and often puzzling aspect of violent relationships is its cyclical nature. Despite the high probability of future victimization, many victims of domestic violence often leave and return multiple times. A considerable amount of research reports that although a woman might leave her abusive partner with the intention of not returning, after some time, she returns (Aizer, & Dal Bo, 2009; Anderson, 2003; Choice & Lamke, 1999; Drigotas & Rusbult, 1992; Gordon et al., 2004; Lerner, & Kennedy, 2000; Pape & Arias, 2000; Rhatigan, Street, & Axsom, 2006; Rusbult, & Martz, 1995; Strube, 1988; Strube & Barbour, 1983, 1984; Truman-Schram, et al., 2000; Walker, 1979). The objective of this study was to understand how interpersonal dependency and self-efficacy influenced intention to return. Participants were 70 women who resided in rural and urban shelters for battered women in Southwest Michigan. They were administered a survey packet, which contained four measures: a demographic questionnaire, the Self Efficacy Scale for Battered Women (Varvaro & Palmer, 1993), the Interpersonal Dependency Inventory (Hirschfeld et al., 1977), and the Intention to Return Questionnaire (Gordon et al., 2004). Primary analyses were multiple regression and hierarchical multiple regression. Three hypotheses were tested with mixed results. Hypothesis 1 determined that self-efficacy was a statistically significant predictor of intention to return. Hypothesis 2a found that emotional reliance on another person (subscale of IDI) was a statistically significant

predictor of intention to return. Hypothesis 2b suggested that lack of social self-confidence (subscale of IDI) was not a statistically significant predictor of intention to return. Hypothesis 2c indicated that assertion of autonomy (subscale of IDI) was not a statistically significant predictor of intention to return. Hypothesis 3 suggested that self-efficacy did not moderate the relationship between interpersonal dependency and intention to return. Limitations of study are discussed and implications for future research and practice are recommended.

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Erin N. Jenkins

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## **CHAPTER I INTRODUCTION**

Countless women are victims of violent relationships. According to Eichler and Smalley (2007), every 15 seconds a woman is battered, perpetuating domestic violence as an incessant problem that is steadily increasing. Additionally, Eichler and Smalley (2007) and Gillum (2008), report that domestic violence affects millions of people across the United States. Up to 4 million women in the United States are physically abused by their partners annually, making domestic violence the greatest cause of injury to women between the ages 15-44 (Gillum, 2008). This estimate totals more incidents than car accidents, muggings, and rapes combined (Eichler & Smalley, 2007). Although not all women are victims of domestic violence, nor are all men perpetrators, the U.S. Department of Justice (USDOJ, 2013a) report that 95% of reported domestic violence cases are women victimized by male perpetrators. Approximately 1 in 4 women have experienced severe physical violence by an intimate male partner (Black et al., 2011). As compared to men who experience domestic violence, women experience more severe injuries as a result of domestic violence with longer lasting symptoms such as posttraumatic stress disorder, depression and anxiety (Black et al., 2011). Women are affected by domestic violence at a disproportionate rate compared to men (Black et al., 2011), comprising 40-50 percent of victims of homicidal murders by an intimate partner (USDOJ, 2003, 2013a, 2013b). Furthermore, in 70-80 percent of intimate partner homicide of women, the man physically abuses the woman before the murder (USDOJ, 2013a). Women constitute 85% of victims of non-lethal domestic violence (Center for Disease Control and Prevention [CDC], 2010; USDOJ, 2013a).

Rosenbaum et al. (1994) suggest domestic violence is a widespread social problem that has occurred throughout history in nearly every culture across the world. Domestic violence does not exist within the confines of cultural heritage, socioeconomic status, gender, age, or religious

affiliation (Burton, 2003; Cole, Logan & Shannon, 2008; Rosenbaum et al., 1994; Medlin, 2012; World Health Organization [WHO], 2002). Rather, its pervasive and ubiquitous nature dwells in each of these contexts, resulting in frightening and alarming consequences for all parties involved (Burton, 2003). Female victims of domestic violence must deal not only with the physical scars that remain, but also the emotional injuries associated with domestic violence. The report to Congress on the Violence Against Women Act by the Federal Bureau of Investigation (FBI, 2005) found that approximately four U.S. women are killed by the hands of their batterers daily, and one in four American women are likely to experience domestic violence in their lifetime. Unfortunately, efforts to reduce intimate partner violence have not been particularly successful. Consequently, domestic violence is the leading cause of physical and psychological morbidity and mortality for women (Gillum, 2008).

### **Problem Statement**

Zubretsky and Digirolamo (1996) report that domestic violence in the U.S. is rooted in a history of cultural and legal traditions that support male domination and abuse of women by men in intimate relationships. Since the 1970's, considerable efforts have been developed to increase society's understanding of domestic violence and to educate professionals and service providers about this dilemma (Danis, 2004; Masterson, 1986; Weissman, 2007; Zubretsky & Digirolamo, 1996). Cole et al. (2008) suggest that such efforts stem from an increased awareness of societies' tendency to blame domestic violence victims and vindicate perpetrators. Despite greater public awareness, domestic violence persists and remains a significant social problem (Aizer, & Dal Bo, 2009; Harrelson, 2013).

Throughout the 1970's, 80's, and early 90's, scholarly research focused primarily on four areas of study: (1) factors that perpetuate domestic violence, (2) the effects of domestic violence

on women and their children, (3) the psychological profiles of batterers, and (4) interventions to eliminate batterers' abusive behaviors (Anderson, 1997; Burton, 2003; Strube, 1988; Strube & Barbour, 1983, 1984; Medlin, 2012; Murphy & Meis, 2008; Lawson, 2013; Lawson et al., 2003; Walker, 1979). More recently, researchers have considered that while escaping abuse may appear to be a clear benefit, the costs associated with leaving the relationship may create challenging barriers for many battered women (Gordon, Burton, & Porter, 2004; Griffing et al., 2002; Truman-Schram, Cann, Calhoun, & Vanwallendael, 2000). Most research on battered women's decision to remain in or leave abusive relationships found that socio-demographic factors and structural factors (i.e., income, transportation, employment, level of social support, number of children, and severity of abuse) are important in influencing women's decisions (Ballantine, 2004; Burton, 2003; Brandt, 2005; Choice & Lamke, 1999; Estrellado & Loh, 2014; Pape & Arias, 2000). Though these socio-demographic factors have been shown to predict whether women stay in or leave abusive relationships, they do not provide the entire picture of the decision-making process nor do they investigate cases where women leave, and later return to the violent relationship.

Other studies suggest that in addition to socio-demographic variables, psychological and emotional variables deserve consideration in battered women's decision-making process to either stay or leave (Lerner & Kennedy, 2000; Truman-Schram et al., 2000). Variables such as non-voluntary dependence, which is defined as how and why individuals sometimes remain involved in relationships that are deeply unsatisfying (i.e., relationship factors such as: commitment level, investment size, availability of alternatives, and satisfaction level) (Aizer, & Dal Bo, 2009; Choice & Lamke, 1997, 1999; Drigotas, & Rusbult, 1992; Katz, Tirone, & Schukrafft, 2012; Miller, 2001; Rusbult & Martz, 1995; Truman-Schram et al., 2000), level of trauma (i.e.,



frequency, and severity of abuse) (Lerner & Kennedy, 2000; Pape & Arias, 2000), coping (i.e., support, forgiveness, spirituality) (Berkel, 1999) self-efficacy (Wettersten, et al., 2004; Lerner & Kennedy, 2000), and economic dependence (Bornstein, 2006, 2007; Medlin, 2012; Strube & Barbour, 1983, 1984), influence battered women's decisions to stay in or leave an abusive relationship.

For example, Rusbult's (1980) Investment Model, which is based on Thibaut's and Kelley's (1959) Interdependence Theory, was developed to understand the conditions under which individuals are likely to stay in abusive relationships (Rusbult & Martz, 1980, 1995). Specifically, the Investment Model suggests, that to understand why individuals remain in ongoing interdependent relationships, it is important to distinguish between the concepts of satisfaction and commitment (Rusbult & Martz, 1980, 1995). Satisfaction level refers to the degree to which the individual favorably evaluates a relationship, whereas commitment level refers to the degree to which the individual intends to maintain a relationship, feels psychologically attached to it and sustains a long-term orientation toward it. The Investment Model posits that women's commitment level predicts their decision to remain in or leave abusive relationships. Rusbult and Martz (1995) suggest that commitment level is mediated by satisfaction level, availability of alternatives, which refers to attractiveness and availability of alternatives to a relationship, and investment size, which refers to the number and magnitude of resources that are tied to a relationship (i.e. time, children, shared material possessions). Additionally, Rusbult and Martz (1995) investigate non-voluntary dependence. The authors postulate that non-voluntary dependence exists when satisfaction is low but commitment is high; this notion emphasizes that the individual feels bound to a relationship even though the relationship is not gratifying (Rusbult & Martz, 1995). The concept of non-voluntary

dependence asserts that women remain in abusive relationships because heavy costs are, in some manner, associated with being in healthier relationships.

The authors tested the Investment Model on 100 women in a domestic violence shelter located in a medium sized mid-western city. Of the 100 women, 84% were Caucasian. The mean age was 29.2, and the mean years of education was 9.9. On average, the women had 2.4 children. Rusbult and Martz (1995) hypothesized that: (1) feelings of commitment to an abusive relationship will be associated with (a) limited or poor-quality alternatives, (b) greater investment of resources in a relationship, and (c) greater satisfaction or lesser dissatisfaction, (2) actual stay/leave behavior will be strongly associated with commitment level; individuals will be more likely to remain with abusive partners to the degree that they feel more strongly committed to their relationships, and (3) once the association between stay/leave behavior and commitment is accounted for, links between stay/leave behavior and the three investment model variables (i.e. alternatives, investments, and satisfaction) will decline in power or drop to non-significance. Findings supported the author's hypotheses. The results are an indication that commitment is strongly linked to stay/leave behavior. That is, stronger commitment is associated with greater tendencies to return to the partner immediately after leaving the shelter (0-3 months) rather than returning later (4-12 months) or not at all (beyond 12 months) (Rusbult & Martz, 1995). Also consistent with Rusbult and Martz's (1995) hypotheses, feelings of commitment are greater among women who (1) have poorer alternatives, (2) are more invested in their relationships (i.e., married), and (3) experience less dissatisfaction (e.g. reported less severe abuse).

Rusbult and Martz's (1995) Investment Model study contributes to breadth of knowledge of battered of women's decisions to remain in or leave abusive relationships. Evidence from the study provides definitive influential factors of women's decisions to stay. Though these findings

are salient, the variables in the study do not provide the entire picture of the decision-making process because they are not sole predictors of whether a battered woman stays or leaves (Truman-Schram et al., 2000). Additionally, Rusbult and Martz (1995) failed to consider if the predictor variables vary for battered women who leave and later return to violent relationships.

In another study, Strube and Barbour (1983) examined the role of economic dependence and psychological commitment in the decision to leave an abusive relationship. Economic dependence refers to a lack of economic resources (i.e., income, employment, and education) that prevents termination of an abusive relationship. Psychological commitment refers to the degree to which an individual feels it is their responsibility to make the relationship work. Strube and Barbour (1983) also investigated the relative utility of objective and subjective measures of the aforementioned variables. The objective measure of economic dependence is employment outside the home, and the objective measure of psychological commitment is length of relationship (Strube & Barbour, 1983). Strube and Barbour (1983) argued that the more committed a woman is to the relationship, the harder it is for her to justify psychologically that leaving is the best decision.

The sample consisted of 98 women who contacted a counseling unit that was associated with the county attorney's office located in a western city. The women contacted this counseling unit voluntarily or at the request of law enforcement officials, attorneys, relatives or friends. Of the 98 women, 84 were Caucasian. Their ages ranged from 17-62, with socio-economic status in the low to high-middle income range. At the time of intake, the women were asked, "Why are you staying with him?" The responses given to the previous question comprised the subjective measures of economic dependence and psychological commitment. Strube and Barbour (1983) report, that the subjective measure of economic dependence is (1) economic hardship, (2)

nowhere else to go, (3) staying for the sake of the children, (4) partner promised he would change, (5) fear, and (6) dependence other than economic. The subjective measure of psychological commitment is love. The results of this study suggest that both economic dependence and psychological commitment are related to decisions to leave domestically violent relationships. The findings held for both objective and subjective measures (Strube & Barbour, 1983).

Though this study indicates that economic dependence and psychological commitment are important factors in battered women's decision to leave, it objectively and quantitatively limits the focus to structural relationship factors. Consequently, Strube and Barbour (1983) fail to account for the unique personal dispositions that influence battered women's decision to leave an abusive relationship. Furthermore, similar to Rusbult and Martz's (1995) study, this study also does not provide the entire picture of the decision-making process because economic dependence and psychological commitment are not sole predictors of whether a battered woman stays or leaves. Moreover, this study does not consider the battered women who leave and intend to return to violent relationships.

As illustrated in the above studies, research tends to focus on explanations of why women remain in or leave abusive relationships without considering why battered women leave, and then return. Additionally, research on domestic violence in regard to socio-demographic factors, structural factors and relationship factors are plentiful (Aizer, & Dal Bo, 2009; Bornstein, 2006; Choice & Lamke, 1997, 1999; Drigotas, & Rusbult, 1992; Katz et al., 2012; Lerner & Kennedy, 2000; Medlin, 2012; Miller, 2001; Pape & Arias, 2000; Rusbult & Martz, 1995; Strube & Barbour, 1983, 1984; Truman-Schram et al., 2000). However, there is a dearth of literature that explores personal dispositions of battered women and their intentions to return to violent

relationships.

Existing research supports the association between self-efficacy and domestic violence in relation to risk and protective factors (Kaslow, et al., 2002; Katz, et al., 2012; Kennedy, 2000; Littleton, Decker, 2016; Siegel, Forero, 2012; Taylor, 2003; Thompson, et al., 2002), suicidality (Thompson, et al., 2002; Thompson, & Short, et al., 2002), and vocational concerns (Chronister, Brown, O'Brien, Wettersten, Falkenstein, et al., 2007; Chronister, & McWhirter, 2003, 2004 & 2006; Wettersten et al., 2004). However, there is limited research on self-efficacy and stay-leave/leave-return decision-making among battered women (Kennedy, 2000; Lerner & Kennedy, 2000; Rhatigan, Shorey, & Nathanson, 2011).

Previous research (Bornstein, 2006, 2007; Chronister, 2007; Strube & Barbour, 1983, 1984) has focused on dependency in reference to the lack of economic resources. However, it is speculated that dependency may also be regarded as a dispositional attribute, associated with both positive and negative consequences for individuals (Pincus & Gurtman, 1995). Interpersonal dependency as measured by the Interpersonal Dependency Inventory (IDI), refers to a “complex set of thoughts, beliefs, feelings, and behaviors that revolve around the need to associate closely with, interact with and rely upon valued other people” (Hirschfeld, Klerman, Chodoff, Korchin, & Barrett, 1977, p. 610). Existing research shows that economic dependency in women contributes to domestic violence risk and impacts the battered woman’s stay-leave decision making (Bornstein, 2006; Medlin, 2012). The concept of economic dependency suggests that when battered women rely economically (i.e., income, employment, and education) on their partner, the likelihood of them being mistreated and abused increases, as do their decisions to remain in the abusive relationship. Therefore, it is presumed that a woman’s level of interpersonal dependency could also impact her intention to return to an abusive relationship. In

an effort to support this claim, research is needed to explore these factors, it is unknown if interpersonal dependency impacts leave-return intentions of battered women. This gap in literature precipitates the purpose of the researchers study.

### **Purpose of the Study**

The purpose of the study is to examine the relationship between self-efficacy as measured by the Self-Efficacy Scale for Battered Women (SESBW) (Vavaro & Palmer, 1993) and interpersonal dependency as measured by the Interpersonal Dependency Inventory (IDI) (Hirschfeld et al., 1977) on battered women's intention to return to domestically violent relationships, as measured by the Intention to Return Questionnaire (Gordon et al., 2004). A related purpose of this study is to contribute to the dated and scarce body of literature that exists on interpersonal dependency among battered women. Additionally, the study explores whether interpersonal dependency moderates the relationship between self-efficacy and intention to return. The study also investigates the influence of demographics as co-variates on intention to return.

### **Definition of Terms**

This section gives meaning to specific terms used in this paper. The terms are defined throughout the paper, but are organized in this section for simplicity. The following conceptual definitions relate to the variables used by the researcher:

- *Domestic violence, family violence, abuse, domestic abuse, violence, intimate partner violence, interpersonal violence and partner abuse* are patterns of abusive behaviors including a wide range of physical, sexual, and psychological maltreatment used by one person in an intimate relationship over another to gain power and maintain control, and authority (Goodman et al., 1993; Jacobson et al., 1994). In this study, these terms are

used interchangeably.

- *Battered women, abused women, and victim* are women who endure physical, sexual, and/or psychological injury from abuse or have a history of abuse by an intimate partner or close relative (U. S. Department of Justice, 1990). In this study, these terms are used interchangeably.
- *Intention to Return* is the degree to which a woman intends to return to her abusive relationship (Gordon, et al., 2004).
- *Interpersonal dependency* is a complex set of thoughts, beliefs, feelings, and behaviors that revolve around the need to associate closely with, interact with, and rely upon valued other people (Hirschfeld et al., 1977)
  - *Emotional Reliance on Another Person* reflects the notions of attachment and dependency. It expresses a wish for contact with and emotional support from specific other persons, as well as expresses a dread of loss of that person. It also involves a general wish for approval and attention from others.
  - *Lack of Social Self-Confidence* reflects the notion of dependency. It expresses wishes for help in decision-making, in social situations, and in taking initiative.
  - *Assertion of Autonomy* denies dependency or attachment. It asserts preferences for being alone, and for independent behavior. It also expresses the conviction that self-esteem does not depend on the approval of others.
- *Self-Efficacy to leave a domestically violent relationship* is a woman's belief that she can successfully execute the behavior necessary to produce a desired outcome (i.e., seeking help/support, leaving the relationship, ascertaining resources, etc.) or to direct her own life with safety, and without fear of abuse (Varvaro & Palmer, 1993).

- *Survivor* refers to a woman's courage and represents the survival strategies of a battered woman who permanently left an abusive relationship.

## **Research Questions**

The current study attempted to answer the following research questions:

1. Does the level self-efficacy to leave a domestically violent relationship predict battered women's intent to return to a domestically violent relationship?
2. Does the level of interpersonal dependency predict battered women's intention to return to a domestically violent relationship?
3. Does the level of interpersonal dependency moderate the relationship between battered women's self-efficacy and intention to return to a domestically violent relationship?

## **Hypotheses**

The research hypotheses guiding the current study are as follows:

1. Battered women with higher levels of self-efficacy as measured by the Self-Efficacy Scale of Battered Women (SESBW) (Varvaro & Palmer, 1993) will report lower levels of intention to return to a domestically violent relationship than battered women with lower levels of self-efficacy.
- 2a. Battered women with higher levels of emotional reliance on another person as measured by the Interpersonal Dependency Inventory (IDI) (Hirschfeld et al., 1977) will report higher levels of intention to return to a domestically violent relationship than battered women with lower levels of emotional reliance on another person.
- 2b. Battered women with higher levels of lack of social self-confidence as measured by the IDI will report higher levels of intention to return to a domestically violent relationship than battered women with lower levels of lack of social self-confidence.



- 2c. Battered women with higher levels of assertion of autonomy as measured by the IDI (Hirschfeld et al., 1977) will report lower levels of intention to return to a domestically violent relationship than battered women with lower levels of assertion of autonomy.
3. Battered women with higher levels of interpersonal dependency as measured by the total score from the IDI (Hirschfeld et al., 1977) will moderate the relationship between lower levels of self-efficacy and higher levels of intention to return to a domestically violent relationship than battered women with lower levels of interpersonal dependency.

### **Summary**

This chapter, the introduction, starts with a historical background for this research and is followed by a statement of the problem, purpose of the study, and specific questions to be answered. The remainder of this dissertation is organized in the following manner. Chapter Two reviews relevant literature related to the study. Chapter Three describes the methodological procedures used to conduct the study. Chapter Four presents the findings of the study. Lastly, Chapter Five includes a summary of the study, discussion of the findings, a presentation of limitations, implications for practice, and areas of future research.

## **CHAPTER II**

### **REVIEW OF RELATED LITERATURE**

In this literature review, the nature of the relationship between interpersonal dependency, self-efficacy, and battered women's intentions to return to violent relationships will be examined. The review will begin by exploring the definition of domestic violence, followed by an examination of women's intentions to return to abusive relationships, its conceptualization in research and influential theories. Next, a review of the relation between self-efficacy and intention to return will be conducted. Subsequently, a review of the relation between interpersonal dependency and intention to return will be conducted. The literature review will end with a brief summary of this section.

#### **Domestic Violence**

The literature reveals that the term, "domestic violence," has evolved throughout the years (FBI, 2005; USDOJ, 1990, 2003, 2013b). For instance, it has been referred to as "wife abuse, male violence against female partners, woman abuse, and partner abuse" (Goodman et al., 1993; Walker, 1999). Jacobson et al. (1994) states that in order for a man's control to be successful, the battered woman should experience and express fear of altercations and arguments because it is through fear that violence, or the threat of violence, becomes a successful method of control. For the purposes of this review, *domestic violence* will be defined as a pattern of abusive behaviors including a wide range of physical, sexual, and psychological maltreatment used by one person in an intimate relationship over another to gain power and maintain control, and authority (Goodman et al., 1993; Jacobson et al., 1994). Throughout this literature review the terms: family violence, abuse, abusive relationship, domestic abuse, violence, violent relationship, intimate partner violence, interpersonal violence and partner abuse are used interchangeably in reference to domestic violence.

## **Intention to Return**

An interesting and often puzzling aspect of violent relationships is its cyclical nature. Many victims of domestic violence often leave and return multiple times, despite the high probability of future victimization. A considerable amount of research reports that although a woman might leave her abusive partner with the intention of not returning, after some time, she returns (Anderson, 2003; Aizer, & Dal Bo, 2009; Choice & Lamke, 1999; Drigotas & Rusbult, 1992, Lerner, & Kennedy, 2000; Gordon et al., 2004; Pape & Arias, 2000; Rhatigan, Street, & Axsom, 2006; Rusbult, & Martz, 1995; Strube & Barbour, 1983, 1984; Strube, 1988; Truman-Schram, et al., 2000; Walker, 1979). For the purposes of this review *intention to return* is defined as is the degree to which a woman intends to return to her abusive relationship (Gordon, et al., 2004).

Some authors believe women leave and return in response to false hope the abuser gives, stating that the violence will cease (Drinnon, Jones, & Lawler, 2000; Fincham, 2000) while others suggest women might leave and return as a tool to improve their bargaining position in the relationship without actually intending to end the relationship (Aizer, & Dal Bo, 2009; Griffing et al., 2002). However, neither theory can explain the large number of women who initially report that they do want to end an abusive relationship, but finally return to their batterers. Researchers postulate that many women who experience domestic violence have limited information about their outside opportunities and don't know where to find the support they need after leaving, and therefore return (Gordon, et al., 2004; Lerner, & Kennedy, 2000; Thompson, Kalsow, & Kingree, 2002; Varvaro & Palmer, 1993; Vavaro & Gesmond, 1997; Wettersten et al., 2004). However, this is not completely consistent with the many battered women who seek refuge and support from shelters after an abusive encounter, then later return to their abusive

partners. While the orientation of residential shelters lean strongly in the direction of fostering independent living arrangements, at least, a third to one-half of all women return to live with their assailant (Carsenat, 1976; Martin, 1978; Snyder & Scheer; 1981; Walker, 1979). Although there is a reasonable amount of literature that highlights intentions to return, the question of “why?” battered women return is still not fully answered or understood.

The FBI (2005) reported that women who leave domestically violent relationships return an average of seven times before they leave for good. Although some women experience only one violent episode, for others, the abuse is a severe and chronic problem. Lerner and Kennedy (2000) state, “most often, for battered women, the decision to stay or leave is not made at a single point in time with finality, but instead unfolds over time, and represents the most fundamental and difficult decision many women may face” (p. 215). Gordon et al. (2004) indicate that women in shelters, who report ambivalence about returning to their partners, rather than certainty about leaving, are more likely to return. However, the factors that underlie these decisions are not well understood. Domestic violence is a vast problem, particularly for women who choose to return to their abusive relationships (Anderson, 2003); therefore, understanding women’s leave-return decision-making is crucial.

In his influential critique and review, Strube (1988) highlights a variety of factors that influence a woman’s decision to leave an abusive relationship. He also identifies four theoretical models (i.e., learned helplessness, psychological entrapment, investment model, and reasoned action/planned behavior) that help explain this complex dilemma. His findings identify a large range in the percentage of women who leave abusive relationships only to return (Strube, 1988). For example, Gelles (1976), a researcher under critique in Strube’s (1988) review, examined the modes of intervention (e.g., separation or divorce, called police, went to agency) used by 41

women in abusive relationships and found that 78% returned to their partners. Similarly, Synder and Fruchtmann (1981) interviewed 119 women admitted to a shelter in Detroit, Michigan and found that 60% of the abused women returned to their abusive partners after leaving the shelter. A number of other researchers in Strube's (1988) review had similar findings (Aguirre, 1985; Berk, Newtown, & Berk, 1986; Giles-Sims, 1983; Hilberman & Munson, 1978; Korlath, 1979; Labell, 1979; Pfouts, 1978; Rounsaville, 1978; Strube & Barbour, 1983, 1984; Stone, 1984; Synder & Scheer, 1981).

More recently, it has been estimated that 50% of women in abusive relationships return to their partners (Ballantine, 2004). Studies have found that 25% - 75% of women seeking help in shelters return to their partners shortly after leaving the shelter (Ballantine, 2004; Tjaden & Thoennes, 2000a, 2000b). When women do permanently leave, they typically do so after years of abuse. Tjaden and Thoennes (2000a, 2000b) found that victims of physical assault suffered an average of 4.5 years of victimization by the same partner, with 26.6% of the women suffering more than 5 years. On average, women suffer seven assaults at the hands of the same partner.

In a study by Anderson (2003), subsequent violence after returning to an abusive partner was examined. The sample consisted of 286 women who completed the Physical Violence in American Families Survey (Gelles & Straus, 1985). Of the 286 women, 180 were White, 44 were Black, and 62 were Hispanic. Each woman in the study was either legally married or cohabiting with her partner. The sample of abused victims included women who left and returned to their abusive partner as well as women who never left the abusive relationship. The analysis attempted to answer a few questions: (1) why do some battered women return to previously violent relationships (2) who are the victims who return and (3) what are the consequences, measured by subsequent violence, of returning to a previously abusive

relationship?

Findings from this study theoretically answered the first question and empirically answered the last two questions. Similar to theories in prior research (Aizer, & Dal Bo, 2009; Griffing et al., 2002), Anderson (2003) theorizes that a woman might briefly leave, always intending to return, as a signal to her abuser that she will not tolerate his violent behavior. In offering an alternative answer to the first question, the author posits that some victims might intend to leave permanently but are forced to return when outside opportunities available to her upon leaving are less than what she expected. For example, if she is unable to find a job and a new home quickly, the victim may return to the abuser who provides food and shelter for her. In regards to who returns to an abuser, evidence in Anderson's (2003) study suggest that women with children are more likely to return while women who live in large cities, perhaps due to greater access to social services and employment, are less likely to return. Finally, the results found that women who left and returned to their abusers suffered more frequent and severe violence than women who never leave. This finding suggests that aggressors are angered by and punish the victim for attempting to escape. Explicitly, victims who attempt to leave and return are worse off, in terms of suffering more violence, than victims who never leave their abusers.

In her study, Anderson (2003) undoubtedly answered two of her three research questions; (2) who are the victims who return, and (3) what are the consequences, measured by subsequent violence, of returning to a previously abusive relationship. She did not however, empirically answer the first question, why do some battered women return to previously violent relationships? Although her initial theoretical response to this question warrants consideration, it leaves scholars wanting definitive confirmation. Her alternative response to question one relates to the concept of economic dependency, a salient component and predictor of intention to return.

However, as mentioned in studies presented in Chapter One of this paper (Bornstein, 2006, 2007; Rusbult & Martz, 1980, 1995; Strube & Barbour, 1983, 1984), economic dependency solely focuses on structural components and doesn't account for the individual dispositional variables that might influence a woman's intention to return. Anderson's (2003) study contributes greatly to the literature of intention to return, however, the author's findings still beckons the question, why do women return to violent relationships? Although a reasonable amount of knowledge has been collected regarding stay-leave decision-making, there is a knowledge gap in current research and literature that investigates intentions to return.

**Influence of Race.** Research on differential rates of abuse by race has been varied. Most research examines Black-White differences and typically report a higher prevalence of intimate partner violence among Blacks than among Whites (Johnson & Ferraro, 2000; Kaslow et al., 2002; Neff, Holamon, & Schluter, 1995; Thompson et al., 2002), while some studies report findings of higher intimate partner violence among "Other" ethnic groups than among Blacks (Tjaden & Thoennes, 2000a, 2000b; Kim & Sung, 2000). In a national violence against women research report, Tjaden and Thoennes (2000b) note that 13% of Asian and Pacific Islander women report being physically assaulted by an intimate partner. For White women, the figure was 21%, for Black women, 26%, for American Indian and Alaska Natives, 31% and for Mixed Race, 27%. Though this indicates there have been research efforts to explore the scope of domestic violence across racial groups, more research is needed to gain a better understanding of the interplay race shares with domestic violence (Chronister, 2006; Tjaden & Thoennes, 2000b; Kim & Sung, 2000; Watts & Zimmerman, 2002). With this understanding, one can identify social forces that shape experiences similarly across subsets of groups as well as take into consideration, the unique ways in which each particular racial and ethnic context shapes

domestic violence, and its consequences (Lacey, Saunders, Lingling, 2011; Wallach, Weingram, & Avitan; 2010).

**Influence of Education Level.** There has been much discussion about the influence of education level with domestic violence. In many societies, power differentials in relationships, often supported by social norms, promote gender inequality and lead to incidents of intimate partner violence (Atkinson, Greenstein, & Lang, 2005; Bisika, Ntata, & Koynyani, 2009).

Bonnes (2016) found that a woman's educational level and educational difference between her and her partner have an effect on the likelihood of her experiencing intimate partner abuse. A few studies suggest that women who have more education, bring in more resources, and make more money, are less likely to experience domestic violence because they have more economic independence, potentially more decision making power in the home, and better resources (Atkinson et al., 2005; Bisika et al., 2009; Chronister, 2007). Inversely, women at a lower educational level than their partner are at greater risk for experiencing domestic violence and typically have fewer resources to leave abusive situations permanently (Bonnes, 2016).

**Influence of Length of Relationship.** In a study looking at women's commitment to violent relationships, Katz et al. (2012) report, women who invest more time into their relationships will exert effort to improve their relationships despite partner violence. Results from their study conclude that women in long-term relationships with violent partners are more willing to sacrifice and/or forgo personal self-interest as a strategy for coping with partner violence; they also sacrifice and/or forgo personal self-interest for the sake of maintaining the relationship (Katz et al., 2012). Additionally, women involved in long-term violent relationships report greater intentions to stay (Katz et al., 2012; Rhatiagn et al., 2006; Strube & Barbour, 1983).



## **Theoretical Frameworks**

The social learning theory (Bandura, 1971) and the traumatic bonding theory (Dutton & Painter, 1981) provide a framework in which interpersonal dependency, self-efficacy and intention to return can best be understood.

**Social Learning Theory.** A leading theory used to understand domestic violence is the social learning theory. Introduced by Bandura (1971, 1977), social learning contends that behaviors are learned through observation and imitation of other people's behavior. Additionally, behavior is maintained through differential reinforcement: initially by the parent, later by others, and then through automatic reinforcement. A fundamental tenet of this theory is that early parental interactions are particularly salient models from which a child learns a variety of behaviors. An instrumental example of this principle is the “Bobo doll” study conducted by Bandura (1963). In this experiment on observation and modeling, Bandura found that children, after viewing a video of an adult aggressively hitting a large inflatable balloon doll, imitated the same violent and aggressive actions once given a balloon doll of their own. Bandura (1963) found that children were more likely to imitate the adult's violent actions when the adult received no consequences or when the adult was rewarded for their violent actions.

Based on the notion of modeling violence, Bandura further theorizes social learning in the context of intergenerational transmission of violence, which proposes that coercive and aversive interpersonal behaviors are learned through violent interactions in one's family of origin (1978). This concept suggests that victims of domestic violence have either witnessed or directly experienced physical abuse as children, and later come to develop an acceptance and tolerance of violence in their adult relationships (Bandura, 1971, 1973, 1978). Several researchers (Brownridge, 2006; Jansinki, 2001; Osofsky, 2005; Whitfield, Anda, Dube, & Feliti, 2003)

support this claim and posit that young girls who are exposed to violence as children internalize and rationalize the violent behaviors. As evidenced by research, the internalized rationalizations continue into adulthood, wherein, the woman begins to define intimacy in terms comparable to what she witnessed or experienced in childhood (Bocks-Hugh & Hughes, 2007; Egeland et al., 2008; Lockette, 2012; Osofsky, 2005; Spilsbury, Kahara, Drotar, & Creeden, 2008).

Consequently, the likelihood of her becoming an adult victim of violence increases (Brownridge, 2006; Osofsky, 2005; Whitfield, Anda, Dube, & Feliti, 2003).

**Traumatic Bonding Theory.** An influential theory regarding women's leave-return cycle is the traumatic bonding theory. Developed by Dutton and Painter (1981), this theory suggests that after leaving, women may experience an increased emotional bond or attachment to their abuser, making them more likely to return. Dutton and Painter (1981, 1993) note that after abuse occurs, the cost of remaining in the relationship becomes clear to the woman; her valuation of the relationship decreases and as a result, she leaves. However, as time passes, immediate fears of being abused subside, which allows opportunity for the emotional attachment to her abuser to manifest. Fear is then replaced by other feelings such as loneliness. During this phase of the leave-return cycle, the woman reminisces on past experiences when her partner was present, contrite and temporarily loving and affectionate; this emphasizes the realization that she is without her partner. Subsequently, her needs, that were once fulfilled in the contrite phase increase, and as a result, she becomes emotionally drained and vulnerable. In this moment, the woman reaches an equilibrium point where suddenly and impulsively, she decides to return (Dutton & Painter, 1981, 1993).

Dutton and Painter (1981, 1993) describe the process of traumatic bonding as a function of two distinct elements, (1) the nature of the power imbalance between abuser and victim and

(2) intermittent good-bad treatment from the abuser. It is thought that:

As the power imbalance magnifies, persons in low power will feel more negative in their self-appraisal, more incapable of fending for themselves, and is thus, more in need of the high power person. This cycle of relationship-produced dependency and lowered self-esteem repeats itself over and over, eventually creating a strong affective bond from the low to high power person. (Dutton & Painter, 1981, p. 147)

To illustrate, violent men who assert coercive authority over their partner frequently cause her to identify with his negative view of her (i.e., low self-esteem). This process is comparable to what social psychologists describe as the “looking-glass self”, or reflected appraisal, whereby we come to internalize the views of us held by others (Cooley, 1902). Such feelings generate a belief system in which battered women perceive themselves as incapable of caring for themselves. This power-dependency dynamic is additionally characterized by intermittent periods of bad (i.e., abuse) and good (i.e., apologies, affection) behaviors from the batterer, which serve as two powerful sources of reinforcement. Through the alternation of abusive and contrite behavior, an interdependent relationship is formed, making it arduous for battered women to permanently leave the abusive relationship.

Dutton and Painter further theorize that if victimized women do leave, traumatic bonding will predict which women eventually return. In fact, it is thought that attachment increases following separation, such that traumatically bonded women dramatically shift their focus from their partner’s violent behavior to the desirable aspects of the relationship. The authors postulate that it’s this change in focus that often causes women to return (Dutton & Painter, 1981, 1993).

## **Self-Efficacy and Intention to Return**

Bandura (1982) notes that self-referent thought mediates the relationship between knowledge and action. In other words, what one thinks they're capable of, influences their motivation and behavior. Bandura (1982) defines self-efficacy as how well one thinks they can execute taking action to deal with problem situations. In this review, *self-efficacy* refers to a woman's belief that she can successfully execute the behavior necessary to produce a desired outcome (i.e., seeking help/support, leaving the relationship, ascertaining resources, etc.) or to direct her own life with safety, and without fear of abuse (Varvaro & Palmer, 1993). Many authors postulate that self-efficacy operates from an internal drive and draws from like principles such as self-esteem, motivation, resilience, independence, pursuit of goals, and self-concept (Danis, 2004; Kia-Keating et al., 2010; Thompson, Short, Kaslow, & Wyckoff, 2002; Wettersten et al., 2004). Researchers state that this internal drive, often referred to as internal strengths, is defined as "protective factors" (Cole et al., 2008; Kalsow et al., 2002; Kia-Keating et al., 2010). The conceptual framework of protective factors is outlined as a safeguard enabling a person to confront stressful situations, which simultaneously influences the health and well being of the person (Kaslow et al., 2002; Kia-Keating et al., 2010). Therefore, it's posited that only in the presence of adversity or risks are these safeguards in operation. Bandura (1982, 1986, 1997) states that the beliefs of efficacy do not necessarily protect the individual from harm but instead, offers opportunities to allow the individual to employ coping strategies when confronting stress. When opportunities to apply coping strategies are persistent, one's belief in one's capability to sustain becomes stronger, which implies the notion that self-efficacy skills develop over a period of time. Similarly, self-efficacy operates as safeguards for battered women who struggle with intentions to return.

Individuals with high levels of perceived self-efficacy demonstrate a commitment and due diligence in developing effective problem solving skills and coping strategies. This often results from the “self-manifesting” mechanism of mastery. Mastery asserts that persons high in self-efficacy set more ambitious goals and show more effort and persistence when facing difficulties. Essentially, mastery and self-efficacy function reciprocally: ones’ level of self-efficacy increases and strengthens the more they seize opportunities to demonstrate mastery, and vice versa (Bandura, 1995; Schwarzer & Warner, 2013). Researchers suggest that in order for battered women to attain efficacious beliefs of permanently leaving an abusive relationship, they must also achieve mastery (Bandura, 1995; Hetling, 2000; Schwarzer & Warner, 2013).

Bandura (1993) states efficacy beliefs influence how people feel, think, motivate themselves, and behave, relative to the circumstance and event the person feels confident and encouraged to confront. However, certain circumstances such as an abusive relationship, present barriers for people to feel confident, encouraged and efficacious; this lessens the chances of the person developing mastery. Wettersten et al. (2004) supports this claim and states that domestic violence is likely to: (1) have pervasive negative effects on battered women’s self efficacy and outcome expectations, (2) reduce the availability of supports, and (3) present a multifaceted set of barriers to battered women’s goals and accomplishments. Furthermore, it is indicated that women who suffer and endure a domestically violent relationship will have residual effects that include lower perceived self-efficacy and lowered self-esteem, negative thoughts of self conveyed by the abuser, and decreased decision-making and problem-solving skills (Wettersten et al., 2004). With lower perceived self-efficacy, and decreased decision-making and problem-solving skills, subsequent to initially leaving, battered women run the risk of returning to abusive relationships. For this reason, research should further investigate the relationship to self-efficacy

and intention to return in an effort to understand and better identify what battered women need to permanently leave an abusive relationship and direct their own life with safety and without fear of abuse.

Research reports a connection of self-efficacy on battered women's stay-leave/leave-return decision-making. Lerner and Kennedy (2000) investigated trauma, coping and self-efficacy as predictors of stay-leave and leave-return decision-making. The authors examined trauma in terms of severity and impact and defined coping in two different ways: (1) problem focused coping, which directly modifies the source of their stress (i.e., batterer) and (2) emotion focused coping, which regulates the emotional distress caused by the stressor. Self-efficacy was examined as the woman's readiness for change (i.e., leaving a violent relationship). The sample consisted of 191 women who were currently involved in a violent relationship without the intention of leaving, women who were currently involved in a violent relationship and were thinking about leaving, women who left a violent relationship within the past year, and women who left a violent relationship, and remained out of the violent relationship for longer than a year. Of the 191 women, 92.6% were White, 3.6% were American Indian, 1.6% were Hispanic, 1% was Black, and 1% identified as Other. Findings indicate that the experience of trauma, coping and self-efficacy vary and depend on whether women were in or out of the relationship and how long it had been since they had left the relationship. Specifically, results note that women who left a violent relationship within 6 months report the highest level of trauma symptoms, greater temptation to return to the violent relationship and highest endorsement of emotion focused coping as compared to the other groups of women. In terms of self-efficacy, the authors note the differential use of coping strategies (i.e., problem focused and emotion focused coping) and trauma level as significant predictors in a woman's readiness for change

(i.e., leaving the violent relationship). Because many battered women return to their abusers after leaving them temporarily (Strube 1988), an ability to assess a woman's level of self-efficacy about addressing the tasks and obstacles involved in leaving a violent relationship helps to contribute to greater awareness of her vulnerability to return. This study contributes to the greater awareness of self-efficacy on intention to return. However, more research is necessary to contribute to validity.

Most research investigates the role self-efficacy and domestic violence in relation to risk and protective factors (Kaslow, et al., 2002; Katz, et al., 2012; Kennedy, 1999; Littleton, Decker, 2016; Siegel, Forero, 2012; Taylor, 2003; Thompson, et al., 2002), suicidality (Thompson, et al., 2002; Thompson, & Short, et al., 2002), and vocational concerns (Chronister, Brown, O'Brien, Wettersten, Falkenstein, et al., 2007; Chronister, & McWhirter, 2003, 2004 & 2006; Wettersten et al., 2004). In these studies, many of the battered women report a loss of inner strength, inability to manage life stressors, lack of confidence to develop realistic plans of action to protect themselves from violence, decreased coping skills, increased vulnerability to intrusive negative thinking about self, anxiety arousal and a decreased sense of control over their life (Kaslow et al., 2002; Katz et al., 2012; Littleton, & Decker, 2016; Siegel, Forero, 2012; Thompson et al., 2002, Wettersten et al., 2004). Feeling self-efficacious in taking a particular action and following through for a successful outcome is complicated for battered women. Decreased and negative social interactions such as those that abused women experience can diminish their sense of power and control and their perceptions of self-efficacy (May & Limandri, 2004).

A person who is regularly told that she cannot do anything right, as some abused woman are, may choose to adjust her beliefs to be consistent with that of her validator (Cooley, 1902), especially if the relationship is one in which she feels invested. In addition, a low level of

confidence may impede the pursuit of other options, such as seeking help to permanently leave the relationship without intention to return (May, & Limandri, 2004). One could assert the impact domestic violence has on self-efficacy, is that it compromises battered women's psychosocial functioning and cultivates feelings of self-doubt, which then creates an unbalanced perceived need for them to depend on the abuser (Bornstein, 2006; Dutton, 2007), thus, increasing the likelihood of them returning to the violent relationship (Katz et al., 2012).

In summary, the findings of the studies reviewed suggest that there is an association between self-efficacy and domestic violence. The review also revealed that there is limited research about self-efficacy on battered women's stay-leave/leave-return decision-making (Kennedy, 1999; Lerner & Kennedy, 2000). Based on a search of published studies conducted in the past ten years on *ProQuest*, *PsycArticles*, and *PsycInfo* databases, one study (Rhatigan et al., 2011) was found that examined the connection between self-efficacy on women who remain in violent relationships, while no studies were found that examined the connection of self-efficacy on leave-return intentions of battered women. This gap in literature results in many sources of untapped knowledge about the impact self-efficacy has on battered women's intention to return to violent relationships. Because the rate of women leaving then returning to violent relationships is excessive, there is a need for future research to continue examining the impact of self-efficacy on intention to return. Lastly, the review revealed that emotion focused coping interacts with self-efficacy on intention to return, however, this information doesn't exhaust all variables that interact with self-efficacy on intention to return. Gaining understanding of more variables that may contribute to this relationship, such as a battered woman's level of interpersonal dependency, might help to elucidate the answer of why women return to violent relationships.



## **Interpersonal Dependency and Intention to Return**

According to social learning theories, dependency is regarded as a learned drive that is acquired in experience rather than instinctually (Bandura, 1971, 1977; Hirschfeld et al., 1977). Subsequently, these learned behaviors generalize to interpersonal relations. From this, one can infer that interpersonal problems emerge during childhood and by adolescence, become established patterns of interpersonal difficulties (Bandura, 1973, 1978; Cassidy 2008). These interpersonal difficulties, which often manifested from connections to attachment figures that adversely and/or inconsistently provided security, protection, and intimacy, continue into adult relationships (Cassidy, 2008). It is during these adult relationships that people's interpersonal dependency influences them to connect with attachment figures that parallel the figures from childhood. In this review *interpersonal dependency* is defined as a complex set of thoughts, beliefs, feelings, and behaviors that revolve around the need to associate closely with, interact with, and rely upon valued other people (Hirschfeld et al., 1977). Furthermore, the thoughts concern views of self and one's relationships with others; the beliefs pertain to the value one places on friendship, intimacy, and interdependency; the feelings include both positive (i.e., warmth, closeness and affiliation) and negative emotions (i.e., emptiness, separateness, and aloneness) and, the behaviors seek to maintain interpersonal closeness, for example, by being "pleasant", giving or requesting advice, or helping others (Hirschfeld et al., 1977). Pincus and Gurtman (1995) state:

Dependency can be used to describe specific behaviors in particular settings, the current psychosocial state of an individual, a personality trait demonstrating cross-situational consistency and temporal stability, a personality type that may be

vulnerable to psychopathology, or a disorder of personality. This wide range of use clearly spans a dimension from normality to abnormality, and one of the challenges in further understanding dependency involves the distinction between its adaptive and maladaptive expressions. (p. 744)

In other words, an excess of interpersonal dependency can have negative implications for an individual's complex of thoughts, beliefs, feelings and behaviors.

A number of studies have assessed the relationship between interpersonal dependency and demographic variables (Birtchnell, 1991), social desirability (Hirschfield et al., 1977), depression and/or anxiety (Brown & Silberschatz, 1989; Uji, Takagishi, Adachi, and Kitamura, 2013; Rusby, Harris, & Tasker, 2013; Vidyanidhi & Sudhir, 2009), and personality disorders (Bornstein, 1998, 2012; Sonnenberg, 2012). In a study examining dependency and self-criticism on depression, authors Brown and Silberschatz (1989), hypothesize that people susceptible to helplessness tend to make casual attributions to account for aversive events. The results support their hypothesis, confirming that people high in dependency and high in self-criticism tend to make internal causal attributions (Brown & Shilberschatz, 1989). That is, people who display an excess of dependency are likely to self-blame, internalize feelings of failure, and exhibit behaviors that are yielding and compliant while holding themselves responsible for negative events that occur. In another study, Uji et al. (2013) examine how interpersonal dependency attitudes (i.e., emotional reliance, lack of social self-confidence, and assertion of autonomy) generate interpersonal negative life events and result in dysphoric moods and poor life functioning. Findings indicate that persons high in interpersonal dependency experience increased vulnerability to interpersonal negative life events, worsened general functioning and poor functioning in close relationships. Furthermore, results indicate that women experience

negative life events more often than men. The authors maintain that women are more susceptible to negative life events as compared to men because it's socially acceptable for women to depend on others (Uji et al., 2013). Additionally, the authors found that women were more likely to become anxious following interpersonal negative life events. Both of the aforementioned studies highlight how interpersonal dependency, when in excess, has negative implications for people. With this knowledge, it's conceivable to presume that battered women with high levels of interpersonal dependency are more likely to experience interpersonal violence.

Lawson and Brossart (2013) assert that interpersonal problems have received little attention in interpersonal violence research and yet, this research has the potential for increasing our understanding of factors that contribute to interpersonal violence. Correspondingly, Buttell and Jones (2001) note that more research is needed so that the role of interpersonal dependency in the etiology and maintenance of domestic violence can be understood. However, most research investigating interpersonal dependency on domestic violence examines the level of interpersonal dependency among violent male offenders (Allison, Bartholomew, Mayseless, Dutton, 2008; Buttell & Jones, 2001; Dumas, Pearson, Elgin, & Mckinley, 2008; Feeney, 2008; Holtzworth-Munroe, Stuart, & Hutchison, 1997; Lawson, 2008, 2010; Lawson & Brossart, 2009, 2013; Lawson & Malnar, 2011; Murphy, Meyer, & O'Leary, 1994; Taft, Murphy, Musser, & Remington, 2004). Conceptually, excessive interpersonal dependency among abusive men is viewed as a consequence of insecure attachment in childhood (Dutton, 1995; Holtzworth-Monroe et al., 1997). Dutton (1995) argues that battered mothers cannot adequately attend to the demands of the attachment process while simultaneously attempting to negotiate a hostile and dangerous home environment. Consequently, children in this situation become insecurely attached and, in adulthood, exhibit excessive dependency and abusive tendencies on their

partners (Bandura, 1973, 1978; Dutton, 1995).

The plausibility of this theory aligns with many attachment and social learning theories (Bandura, 1973, 1978; Cassidy, 2008; Fraley & Davis, 1997). However, in an effort to expand the breadth of literature about interpersonal dependency and domestic violence, one has to inquire about the level of interpersonal dependency among battered women. Research provides evidence on the interplay of interpersonal dependency and male partner abusers, suggesting that violent and abusive men with high levels of interpersonal dependency are at an increased risk for addressing conflicts in a coercive, controlling, and vengeful manner that is manifested in physical aggression toward a partner (Holztzworth-Munroe et al., 1997; Lawson & Brossart, 2013; Lawson & Malnar, 2011; Murphy et al., 1994). No research to date has investigated the association of interpersonal dependency on battered women's leave-return decision-making. While it is critical to examine the level of interpersonal dependency among male abusers so that intervention and treatment programs are improved and tailored to target the specific maladaptive interpersonal patterns of the abuser, it is also imperative to investigate a battered woman's level of interpersonal dependency, as it might give light to what influences her leave-return decision-making. With the culmination of studies that have researched interpersonal dependency (Birtchnell, 1991; Bornstein, 1998, 2012; Brown & Silberschatz, 1989; Hirschfield et al., 1977; Rusby et al., 2013; Sonnenberg, 2012; Uji et al., 2013; Vidyanidhi & Sudhir, 2009) as well as the studies that have researched the connection of interpersonal dependency to domestic violence (Allison et al., 2008; Bornstein, 2006, 2007; Buttell & Jones, 2001; Dumas, Pearson, Elgin, & McKinley, 2008; Freeney, 2008; Holztzworth-Munroe, Stuart, & Hutchison, 1997; Lawson, 2008, 2010; Lawson & Brossart, 2009, 2013; Lawson & Malnar, 2011; Murphy, Meyer, & O'Leary, 1994; Taft, Murphy, Musser, & Remington, 2004), it is surprising to see such a gap in

the literature as it pertains to the impact interpersonal dependency could have on battered women's intentions to return to violent relationships.

Research has however, explored economic and/or emotional dependency among battered women (Bornstein, 2006, 2007; Chronister, 2007; Chronister & McWhirter, 2003, 2004, 2006; Medlin, 2012; Miller, 2001; Rusbult & Martz, 1980, 1995; Strube & Barbour, 1983, 1984). For example, Miller's (2001) study examines women's emotional dependence on men and the impact it has on their decisions to stay in abusive relationships. The sample consisted of 113 abused women who were clients of a community outreach program in California. Of the 113 women 50.4% identified as Caucasian, 33.6% as Hispanic, 5.3% as African American, 5.3% as Native American, 3.5% as Asian, and 1.8 % as Other. In utilizing the Emotional Dependence Questionnaire (EDQ) (Henderson & Cunningham, 1993) to measure women's emotional dependence on men, results indicate women's emotional dependence on men is associated with numerous negative factors, including increased depression, anxiety, and hostility toward other women; and decreased self-esteem, self- efficacy, identity, social support, and life satisfaction. The findings, however, did not support the influence of women's emotional dependence on men on decisions to remain in violent relationships (Miller, 2001). Bornstein (1992, 1993) describes emotional dependency as a marked need for nurturance, protection, and support in situations in which a person is capable of functioning autonomously and meeting challenges on his or her own. With using Bornstein's (1992, 1993) conceptualization of emotional dependency, it is clear why the main effect of emotional dependency was not supported in Miller's (2001) findings, i.e., emotional dependency captures the personality style's more passive helpless features in situations that do not warrant threat or the perception of threat (i.e., abusive relationships). While Miller's study contributes to the literature of psychological factors related to battered

women's emotional dependence on men, the findings: (1) do not support a connection of emotional dependency on the decision to remain in an abusive relationship, which is conceivably due to accounting for emotional dependency among battered women on a scale, that as the author states, has never been used on interpersonal violence populations, and (2) does not examine the full breadth of dispositional features of battered women's dependency, as the this study limited its focus to emotional dependency (2001). To this end, the gap in literature of interpersonal dependency on battered women's intention to return to violent relationships remains.

In summary, the findings of the studies reviewed suggest that there is an association between interpersonal dependency and domestic violence. However, the review also revealed that there is no research about battered women's interpersonal dependency on stay-leave decision-making, nor leave-return decision-making. Based on a search of published studies conducted in the past ten years on *ProQuest*, *PsycArticles*, and *PsycInfo* databases, no studies were found that examined the connection of interpersonal dependency on leave-return intentions of battered women. This gap in literature results in many sources of untapped knowledge about the impact interpersonal dependency has on battered women's intention to return to violent relationships. Because the rate of women leaving and later returning to violent relationships is excessive, there is a need for future research to examine the impact of interpersonal dependency on intention to return. Lastly, the review revealed an association of emotional dependency on self-efficacy among battered women (Miller, 2001). The correlation of dependency (i.e., emotional) on self-efficacy merits the need to explore interpersonal dependency as a moderator between self-efficacy and intention to return.

## **Summary**

The literature review began by exploring the definition of domestic violence, and

followed with an examination of women's intentions to return to abusive relationships. Next, influential theories were examined to provide a conceptual framework for interpersonal dependency, self-efficacy and intention to return. The review then investigated the relation between self-efficacy and intention to return, followed by an investigation of the relation between interpersonal dependency and intention to return. Research revealed that there is a dearth of current literature that examines self-efficacy and interpersonal dependency on battered women's intention to return to violent relationships. Interpersonal dependency, for example, might buffer against self-efficacy (Miller, 2001) and promote intention to return. However, in order to support this claim and in order for battered women to learn how to embody variables necessary to decrease intentions to return, it is first important for researchers to better understand the variables that influence return rate. Therefore, further research is needed on factors that might impact battered women's intentions of returning to violent relationships. The study following the review aligns well with this logic, examines factors that contribute to intentions to return, and adds to the breadth of research of interpersonal dependency, self-efficacy and intention to return.

## **CHAPTER III METHOD**

### **A Priori Analysis**

The researcher conducted an a priori analysis using G\*Power 3.1 (Cohen, Cohen, West, & Aiken, 2003; Cohen, 1988; Hair, Black, Babin, Anderson & Tatham, 2006). To ensure the integrity, effect size and statistical validity of the study, the researcher predicted a medium effect size ( $f^2$ ) to be a value of .15 and the desired power to be set at .80. From the G\*Power analysis, the total sample size given was 68. To confirm the total sample size given from the G\*Power analysis, this researcher and the primary investigator consulted with Dr. Joshua Naranjo, Director of the Statistical Consulting Center at Western Michigan University (J. Naranjo, personal communication, April, 22, 2015).

### **Participants**

Participants for this study consisted of a purposive sample of 70 women who resided in selected shelters for battered women in Michigan. In an effort to gather a racially representative sample, the shelters used were located throughout urban and rural areas. The number of women based on race/ethnicity reflected the ratio in the shelter populations. Participant response rate was 100% ( $n=70$ ). There were no surveys of participants who did not complete more than 10% of their responses, thus, no participants were removed from the sample. The results section contains further information about missing data. The women in this study were: (1) at least 18 years old, (2) able to read English at the 8<sup>th</sup> grade level, (3) and spoke English. Participant characteristic frequencies are detailed in Table 1.

Of the 70 participants, the majority identified as African American/Black ( $n=37$ ; 52.9%), followed by Caucasian/White ( $n=26$ ; 37.1%), Latina/Hispanic ( $n=3$ , 4.3%) and Other ( $n=4$ ; 5.7%). Participants' age ranged from 18-57 ( $M=32.8$  and  $SD=11.76$ ). Regarding their highest



level of education achieved, 15 had some high school or less (21.4%), 33 had a high school diploma/G.E.D (47.1%), 1 had some technical/vocational school (1.4%), 1 was a technical/vocational school graduate (1.4%), 15 had some college (21.4%) and 5 were college graduates (7.1%). Length of their relationship ranged from .25-40 years ( $M=7.14$  and  $SD=8.77$ ). The majority of the participants ( $n=38$ ; 54.3%) earned less than \$10,000 annually; 24 earned \$10,000-\$19,999 annually (34.3%); 7 earned \$20,000-\$29,999 annually (10 %); and 1 earned \$30,000-39,999 annually. Participants had between 0-12 children ( $M= 2.81$ ;  $SD=2.29$ ). The majority of participants ( $n=64$ ; 91.4%) experienced physical abuse in their relationship as compared to those who did not ( $n=6$ ; 8.6%); 44 participants experienced sexual abuse in their relationship (62.9%) as compared to 26 who did not (37.1%); 53 participants experienced psychological abuse in their relationship (75.7%) as compared to 17 who did not (24.3%). Of the 64 (91.4%) participants who experienced physical abuse, the severity ranged from mild (i.e., no obvious physical scars), to moderate (i.e., some scars and bruising), to great (i.e., scars, bruising and required medical attention); with 8 participants experiencing mild physical abuse (12.9%), 29 experiencing moderate physical abuse (41.4%), and 27 experiencing great physical abuse (38.6%). Of the 44 (62.9%) participants who experienced sexual abuse, the severity ranged from mild (i.e., forced kissing), to moderate (i.e., forced kissing and unwanted fondling), to great (forced kissing, unwanted fondling, and forced vaginal, anal or oral sex); with 1 participant experiencing mild sexual abuse (1.4%), 8 experiencing moderate sexual abuse (11.4%), and 35 experiencing great sexual abuse (50%). Of the 53 (75.7%) participants who experienced psychological abuse, the severity ranged from mild (i.e., bribes me to get me to do things I do not like or enjoy), to moderate (i.e., bribes me to get me to do things I do not like or enjoy, insults me and shames me), to great (i.e., bribes me to get me to do things I do not like or

enjoy, insults me and shames me, frightens me and threatens to hurt or kill me); with 4 participants experiencing mild psychological abuse (7.1%), 15 experiencing moderate psychological abuse (21.4%), and 34 experiencing great psychological abuse (48.6%). In regards to receiving support from family and friends, participants rated each item as 0=none, 1=a little support, 2=moderate support, 3= a lot of support. On average, participants reported receiving “a little support” from family (M=1.33; SD=.91) and reported receiving “a little support” from friends (M=1.17; SD=.81). Prior to completing the survey, the amount of times participants left their spouse/significant other then returned to their spouse/significant other ranged from 0-30 times (M=2.86; SD=4.42).

Table 1  
*Participant Characteristics*

Category	Frequency	Percentage
Race/Ethnicity		
African American/Black	37	52.9%
Caucasian/White	22	37.1%
Latina/Hispanic	3	4.3%
Other	7	5.7%
Age		
18	5	7.1%
19	3	4.3%
20	6	8.6%
22	2	2.9%
23	3	4.3%
24	4	5.7%
25	3	4.3%
26	4	5.7%
27	1	1.4%
28	2	2.9%
29	1	1.4%
31	2	2.9%
32	2	2.9%
34	2	2.9%
35	1	1.4%
36	3	4.3%
37	3	4.3%
38	2	2.9%
40	1	1.4%

Table 1 – Continued

Category	Frequency	Percentage
41	3	4.3%
42	1	1.4%
43	1	1.4%
44	2	2.9%
45	1	1.4%
47	1	1.4%
48	1	1.4%
49	1	1.4%
50	2	2.9%
51	2	2.9%
55	3	4.3%
56	1	1.4%
57	1	1.4%
Living with Partner Prior to Shelter		
Yes	61	87%
No	9	12%
Length of Relationship in Years		
.25	1	1.4%
.50	3	4.3%
.58	1	1.4%
1.00	5	7.1%
1.16	1	1.4%
1.33	1	1.4%
1.41	1	1.4%
2.00	6	8.6%
2.25	1	1.4%
2.50	1	1.4%
3.00	9	12.9%
3.25	1	1.4%
3.33	1	1.4%
4.00	6	8.6%
4.25	1	1.4%
4.50	1	1.4%
5.00	6	8.6%
5.50	1	1.4%
6.00	1	1.4%
7.00	5	7.1%
8.00	2	2.9%
10.00	2	2.9%
12.00	1	1.4%
12.83	1	1.4%
13.00	2	2.9%
15.00	1	1.4%
19.00	1	1.4%
21.00	1	1.4%
22.50	1	1.4%
24.00	1	1.4%
28.00	1	1.4%
36.00	1	1.4%

Table 1 – Continued

Category	Frequency	Percentage
37.00	1	1.4%
40.00	1	1.4%
Highest Level of Education Achieved		
Some High School or Less	15	21.4%
High School Diploma/G.E.D.	33	47.1%
Some Technical/Vocational School	1	1.4%
Technical/Vocational School Grad.	1	1.4%
Some College	15	21.4%
College Graduate	5	7.1%
Annual Income		
Less than \$10,000	38	54.3%
\$10,000-\$19,999	24	34.3%
\$20,000-\$29,999	7	10%
\$30,000-39,999	1	1.4%
Number of Children		
0	8	11.4%
1	11	15.7%
2	18	25.7%
3	12	17.1%
4	10	14.3%
5	6	8.6%
6	1	1.4%
7	1	1.4%
8	1	1.4%
11	1	1.4%
12	1	1.4%
Experienced Physical Abuse		
Yes	64	91.4%
No	6	8.6%
Severity of Physical Abuse Experienced		
Mild	8	12.9%
Moderate	29	41.4%
Great	27	38.6%
Experienced Sexual Abuse		
Yes	44	62.9%
No	26	37.1%
Severity of Sexual Abuse Experienced		
Mild	1	1.4%
Moderate	8	11.4%
Great	35	50%
Experienced Psychological Abuse		
Yes	53	75.7%
No	17	24.3%

Table 1 – Continued

Category	Frequency	Percentage
Severity of Psychological Abuse Experienced		
Mild	4	7.1%
Moderate	15	21.4%
Great	34	48.6%
Received Support from Family		
None	12	17.1%
A little support	32	45.7%
Moderate support	17	24.3%
A lot of support	9	12.9%
Received Support from Friends		
None	12	17.1%
A little support	40	57.1%
Moderate support	12	17.1%
A lot of support	6	8.6%
Prior to now, times left partner and later returned		
0	22	31.4%
1	11	15.7%
2	8	11.4%
3	13	18.6%
4	4	5.7%
5	2	2.9%
6	3	4.3%
7	1	1.4%
8	1	1.4%
10	3	4.3%
15	1	1.4%
30	1	1.4%

Note.  $N = 70$

## Procedure

Once approval was granted from the *Human Subjects Institutional Review Board* to proceed with the study, the researcher contacted administrators of all selected shelter facilities via e-mail (see appendices) to ask permission to collect data at their respective shelter and to explain the purpose of this study. If no response was received from the administrators after one week, the researcher contacted the administrators via telephone (see appendices). After the administrators agreed to permit data collection in their respective shelter, the researcher

scheduled an appointment at a time that was determined and negotiated by the administrator and the researcher. The researcher sent an informational flyer (see appendices) to the administrators to be distributed to the shelter population. This flyer contained all information necessary for ongoing participation in the study and protected the women's privacy in the event they did not want to participate. Those individuals that choose to participate were invited to attend a special meeting on a date and time reflected on the informational flyer. The researcher completed data collection in a group room at each shelter. During the scheduled appointment, participants were invited to participate in the study through use of a written script (see appendices) that was read aloud by the researcher. The script informed the women that a research study was being conducted regarding domestic violence and invited them to participate in the study. Individuals who did not wish to participate or did not meet the study's eligibility requirements did not continue after the script was read. Individuals who met the study's eligibility criteria and were interested in participating received the research packet containing four surveys and the HSIRB's letter of informed consent (see appendices).

Participants were asked to read the letter of informed consent. The HSIRB letter of informed consent informed the participants of the nature, purpose, and duration of the study. It stated the risks and benefits of the study, and stated that participation in this study was completely voluntary, anonymous and that information would be maintained in a confidential manner. As reflected in the letter of informed consent, participants were allowed to ask questions, skip items or withdraw from the study at any time without penalty. Participants were instructed not to put their name anywhere on the forms. On average, the total survey time ranged from 30 to 60 minutes. A debriefing (see appendices) for the participants occurred immediately after the surveys were completed. If any participant became significantly upset, the researcher

was prepared to provide crisis counseling. In addition, the selected shelters had onsite counseling services and made them available to the participants. The researcher was also prepared to make referrals if the participants preferred to seek counseling outside the shelter. Upon completion of the research packet, participants were eligible to enter a raffle for a \$10 gift certificate as compensation for their anonymous participation in this study. Each shelter housed new women on 5-week intervals and the raffle occurred at the start of each 5-week interlude. Following the debriefing, the raffle for the \$10 gift certificate was drawn and given to the designated participant. In an effort to maintain anonymity and minimize potential risks, the names and the locations of the selected shelters will not be published.

## **Measures**

The four measures that were used in this study included: (1) a demographic questionnaire, (2) the Self Efficacy Scale for Battered Women (SESBW; Varvaro & Palmer, 1993), (3) the Interpersonal Dependency Inventory (IDI, Hirschfeld et al., 1977), and (4) the Intention to Return Questionnaire (Gordon et al., 2004).

**Demographic Questionnaire.** The demographic questionnaire, developed by the researcher is a 22-item self-administered measure used to assess key socio-demographic information regarding the participant's: race/ethnicity, age, relationship status, length of relationship, number of children, number of times left and returned, number of times left and sought refuge at a shelter, severity of abuse, employment status, income level, level of social support, and education level.

**Self-Efficacy Scale for Battered Women (SESBW).** The SESBW (Varvaro & Palmer, 1993) is a 12-item self-administered measure used to assess abused women's beliefs that they could engage in given behaviors reflecting positive steps in dealing with an abusive relationship.

The SESBW takes about 5 minutes to complete (Varvaro & Palmer, 1993). The participant answered each item on an analog scale, with values ranging from 0 (couldn't do at all) to 100 (completely sure I could do it). An overall score was obtained for the entire scale. Scores of 0 to 49 indicate lower self-efficacy; 50 to 71 indicate moderate self-efficacy and scores of 72 and above indicate a higher self-efficacy. Tertile scoring was used to determine which scores on each item for the SESBW reflect lower self-efficacy. Sample items include "Can ask for help by talking to the nurse or doctor about my situation", and "Can do things I normally enjoy without fear of being abused." The scale authors reported an internal consistency reliability of .88 and good construct validity, as evidenced by the scale's significant positive correlations with measures of self-mastery, self-esteem, and psychological well-being (Varvaro & Palmer, 1993). The SESBW was initially designed by the authors to assess the self-efficacy needs of women who presented to the emergency department with injuries from abuse or women who reported a history of abuse. The internal consistency of the SESBW was  $\alpha = .84$  in this study.

**Interpersonal Dependency Inventory (IDI).** The IDI (Hirschfeld et al., 1977) is a 48-item self-administered questionnaire that consists of a series of dependency-related statements, each of which is rated on a 4-point scale (1 = not characteristic, 2 = somewhat characteristic, 3 = quite characteristic, 4 = very characteristic). The authors' factor analysis of IDI items resulted in the formation of three subscales: emotional reliance on another person (ER), lack of social self-confidence (LS), and assertion of autonomy (AA) (Hirschfeld et al., 1977). Sample items include: "I would feel helpless if deserted by someone I love," "In an argument, I give in easily," and "I hate it when people offer me sympathy." Corrected split-half reliabilities were: .87 for ER, .78 for LS, and .72 for AA (Hirschfeld et al., 1977). The IDI was constructed in the late 1970's when none of the pre-existing self-report inventories adequately assessed interpersonal



dependency (Hirschfeld et al, 1977). It was designed to assess interpersonal dependency in adults. According to Hirschfeld et al. (1977), interpersonal dependency refers to "a complex set of thoughts, beliefs, feelings, and behaviors revolving around needs to associate closely with valued other people" (p. 610).

The three scales differ in terms of the self in relation to others. The emotional reliance on another person (ER) scale addresses the degree and intensity of a relationship to a single other person. The second scale, lack of social self-confidence (LS) assesses the individual's relationship to people in general. The assertion of autonomy (AA) scale assesses the degree to which an individual is indifferent to or independent of the evaluations of others. The authors suggest that a summative combination of scores on each of the three scales could be determined (Hirschfeld et al., 1977). Again, the points range from 1 (not characteristic) to 4 (very characteristic). Thus, a whole-scale score can be determined by summing each participant's scores on the ER and LS scales and subtracting from this total the participant's score on the AA scale (Bornstein, 1998). For the current study, specific items, as indicated by the scoring key for each of the three separate subscales, were added to yield three separate scores. The minimum score for the ER subscale is 18 and the maximum is 72. For the LS subscale, the minimum score is 16 and the maximum is 64. On the AA subscale, the minimum score is 14 and the maximum is 56. The researcher of this study also calculated a full-scale score to measure interpersonal dependency, however, instead of using the total score as typically done, the researcher changed the scaling and used the average score. Specifically, the researcher summed all items then divided it only by the number of items completed. This was done in part to account for all missing values and to score all measures in a consistent manner. Some of the items on the LS subscale were reversed scored so that higher scores indicate high levels of LS. In the current

study, the internal consistency of the IDI was  $\alpha = .82$ ; ER, LS, and AA subscales,  $\alpha = .82, .74$ , and  $.44$ , respectively.

**Intention to Return Questionnaire.** The intention to return questionnaire (Gordon et al., 2004) is a 6-item self-administered measure designed to assess the degree to which a woman intends to return to an abusive relationship. Responses were rated on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items include “I miss my partner a lot” and “I wish my partner and I could make our relationship work”. The authors reported an internal consistency reliability of  $.84$  and good construct validity, as evidenced by the scale’s significant positive correlation with Rusbult and Martz’s (1995) three-item measure of commitment (Gordon et al., 2004). This questionnaire was created to serve as an adequate proxy variable for actual return in order to minimize invasive and costly follow-up procedures. The questionnaire was normed on women residing in domestic violence shelters.

The researcher of this study calculated a full-scale score using the average score. Specifically, the researcher summed all items then divided it only by the number of items completed. This was done in part to account for all missing values and to score all measures in a consistent manner. One of the items was reversed scored so that higher scores indicate high levels intention to return. In the current study, the internal consistency of the scores was  $\alpha = .80$ .

## CHAPTER IV RESULTS

### Preliminary Analyses

To ensure the accuracy of the data, several steps were conducted prior to testing the hypotheses. The data was first checked to ensure that all values were within the expected range and then double-checked to identify potential data entry errors and ensure integrity. To complete this task, a random sampling of 25% of the data was extracted and compared to the data entered into SPSS. All categorical variables were dummy coded to be able to run regression analyses. In addition, the data was then assessed for missing values, and outliers; assumptions of linear regression (e.g., normality, linearity, homoscedasticity, multicollinearity) were also tested. Reliability estimates of scores and bivariate correlations were then examined.

**Missing Values.** There were no surveys of participants who did not complete more than 10% of the items, thus, no participants were removed from the sample. To account for missing values, the researcher calculated total scores by averaging the number of items completed on each scale. These mean scores were then used to compute the correlation and regression analyses. The researcher calculated means in this particular way to provide a truer view of how participants scored on the overall survey. The data was next examined for extreme values by testing for outliers.

**Outliers.** Outliers were checked observing the standardized residuals, checking for any values greater than an absolute value of three. The researcher observed one case at 3.31. However, after checking the influence using Cook's Distance (.24) for that case, it was determined that the impact of deleting the case was not significantly influential. The value of .24 is below the standard cutoff of .5; therefore the researcher retained the outlier (Cook & Weisburg, 1982).

## **Assumptions of Linear Regression**

Linearity tests whether the relationship between the predictor variables and the outcome variable is linear. Violations of linearity can lead to incorrect predictions about the regression coefficients. Homoscedasticity describes occurrences in which the random error is the same across all values of the predictor variables. Violations of homoscedasticity can lead to standard errors that are biased and lead to incorrect conclusions about the significance of the regression coefficients. Normality requires that all variables are multivariate normal. Violations of normality can lead to problems determining whether regression coefficients are statistically significantly different from zero and calculating confidence intervals. Multicollinearity explores whether the predictor variables are independent of each other. Violation of multicollinearity can increase the variance of the regression coefficient estimates and make the estimates sensitive to minor changes in the model (Keith, 2006).

The researcher checked for linearity and homoscedasticity for all variables (i.e. Self Efficacy Scale for Battered Women –SESBW, Interpersonal Dependency Inventory –IDI, Emotional Reliance on Another Person –IDI-ER (Subscale), Lack of Social Self-Confidence –IDI-LS (Subscale), Assertion of Autonomy-IDI-AA (Subscale) and Intention to Return Questionnaire –IR) through visual inspection of scatterplots of the residuals. The researcher also checked for non-linearity by visually inspecting bivariate correlations of all variables using a scatterplot matrix. Through both visual inspections, the researcher did not find any noticeable patterns of concern to indicate violation of linearity or homoscedasticity. Normality was checked using the Kolmogorov-Smirnov Test, and observing the Q-Q plots, P-P plots, and histograms of all variables. Results indicated that SESBW, and IR violated normality in the Kolmogorov-Smirnov Test. However, upon following up through the Q-Q plots, and P-P plots,

deviation of the line was slight. Furthermore, kurtosis and skewness were below the standard cutoffs (skewness cutoff = 2; kurtosis cutoff = 7) for SESBW and IR (Lomax, 2007). Therefore, these variables were retained. The skewness and kurtosis for the remaining variables were examined as well; all variables were below the skewness and kurtosis standard cutoff.

The researcher checked for multicollinearity using tolerance values and variation inflation factors (VIF) in the regression model. The regression model includes self-efficacy, interpersonal dependency, and the three co-variables of race, education level, and length of relationship on intention to return. It was found that the tolerance values were greater than .10 and the VIF scores were less than 10 in the regression models, indicating that multicollinearity was not detected.

### **Reliability Estimates**

The reliability estimates of the scores for all measures are listed in Table 2. Scores for SESBW, IDI, IDI-ER, IDI-LS, and IR, met the standard cutoff criteria of .70 (Nunnally, 1978). However, the reliability estimates of scores for IDI-AA, was less than .70. Low reliability (Cronbach's alpha below .70) scores in the AA subscale of the IDI have been noted in several studies after the creation of the IDI (Frank, Kuper, & Jacob, 1987; Reich, Noyes, Hirschfeld, Coryell, & O'Gorman, 1987). Some postulate (Birtchnell, 1991; Bornstein 1992 & 1993) that the scores on the AA subscale do not show consistent predicted patterns of results on research of dependency, as do the ER and the LS subscale scores. Birtchnell questions the inclusion of the AA subscale in the IDI and states "it is impossible to tell from the questionnaire responses whether a person is denying dependence or is simply independent" (1991, p. 288) Thus, the AA subscale should be interpreted with caution. The researcher conducted post hoc analyses; in one of the post hoc analyses, the researcher removed IDI-AA as variable to see if the results would

differ otherwise.

### **Descriptive Statistics**

Descriptive statistics, including means, standard deviations and bivariate correlations, were computed for all of the study variables and are presented in Table 2. In terms of practical significance, the SESBW was negatively correlated with IDI ( $r = -.44$ ), IDI-ER ( $r = -.30$ ), IDI-LS ( $r = -.39$ ) and IR ( $r = -.32$ ). The IDI was positively correlated with IDI-ER ( $r = .80$ ), IDI-LS ( $r = .79$ ), and IR ( $r = .28$ ); however the IDI was negatively correlated with IDI-AA ( $r = -.34$ ). The IR was positively correlated with IDI-ER ( $r = .36$ ) and IDI-LS ( $r = .26$ ).

One-way ANOVA analyses were used to compare differences in the co-variates (i.e., race, education level, and length of relationship) to determine if there were significant differences in SESBW, IDI, IDI-ER, IDI-LS, IDI-AA and IR. Results indicated that there were no significant differences between all co-variates (i.e., race, education level, and length of relationship) and SESBW, IDI, IDI-ER, IDI-LS, IDI-AA and IR.

Table 2

*Descriptive Statistics, Correlations, Means, Standard Deviations and Reliability Estimates (Cronbach's  $\alpha$ ) for Self Efficacy Scale for Battered Women, Interpersonal Dependency Inventory, Emotional Reliance on Another Person (Subscale), Lack of Social Self Confidence (Subscale), Assertion of Autonomy (Subscale), and Intention to Return Questionnaire*

Variable	1	2	3	4	5	6
1. SESBW	--	-.44**	-.30*	-.39**	.18	-.32**
2. IDI	-.44**	--	.80**	.79**	-.34**	.28*
3. IDI-ER	-.30*	.80**	--	.68**	.18	.36**
4. IDI-LS	-.39**	.79**	.68**	--	.13	.26*
5. IDI-AA	.18	-.34**	.18	.13	--	.09
6. IR	-.32**	.28*	.36**	.26*	.09	--
<i>M</i>	18.17	42.77	42.06	34.26	33.67	10.39
<i>SD</i>	4.70	16.51	9.53	7.65	8.37	5.35
Skewness	-.80	.42	.01	.06	.87	.92
Kurtosis	-.14	.25	.07	-.89	3.71	.51
$\alpha$	.84	.82	.82	.74	<b>.44</b>	.80

*Note.*  $N=70$ ; \* $p < .05$ , \*\* $p < .01$ ; Correlation scores were derived from the mean of only the total number of items completed per scale; Reliability estimates in bold did not meet standard cutoff criteria of .70.

**Hypothesis 1: Battered Women with Higher Levels of Self-Efficacy will Report Lower Levels of Intention to Return to a Domestically Violent Relationship than Battered Women with Lower Levels of Self-Efficacy.**

A multiple regression analysis was used to test if there was a statistically significant relationship between self-efficacy and intention to return. Table 3 provides the results of the multiple regression analysis where self-efficacy was entered as the predictor variable.

Demographic variables (i.e., race, education level, and length of relationship) were entered into the model as co-variates of self-efficacy. The results indicate that the multiple regression equation was statistically significant,  $F(4,63) = 3.38$ ,  $p < .05$ ,  $R^2 = .18$ . Support was found for main effect of self-efficacy ( $\beta = -0.35$ ,  $p < .01$ ) on intention to return, controlling for race, educational level, and length of relationship in years. The co-variates were not statistically significant. Race and education level are dummy coded (race-white; education level-some college).

Table 3

*Multiple Regression Analyses of the Self Efficacy Scale of Battered Women, Controlling for Race, Educational Level and Length of Relationship in Years on Intention to Return*

Variable	B	SE B	$\beta$	$p$	$R^2$	95% CI	$\Delta R^2$	F
SESBW	-.76	.25	-0.35	.00**	.18	-1.26 – -.26	.18	3.38
Race	.20	.22	0.12	.36		-.24 – .64		
Educational Level	.19	.24	0.10	.42		-.28 – .67		
Length of Relationship	.02	.01	0.19	.11		-.00 – .04		

*Note.*  $N = 70$ ;  $B$  = unstandardized regression coefficient;  $SE B$  = standard error;  $\beta$  = beta or standardized regression coefficient;  $*p < .05$ ,  $**p < .01$ ;  $R^2$  = coefficient of determination; CI = confidence interval;  $\Delta R^2$  = change in coefficient of determination;  $F$  = degrees of freedom

**Hypothesis 2a: Battered Women with Higher Levels of Emotional Reliance on Another Person as Measured by the Interpersonal Dependency Inventory (Hirschfeld et al., 1977) will Report Higher Levels of Intention to Return to a Domestically Violent Relationship than Battered Women with Lower Levels of Emotional Reliance on Another Person.**

A multiple regression analysis was used to test if there was a statistically significant relationship between emotional reliance on another person and intention to return. Table 4 provides the results of the multiple regression analysis where emotional reliance was entered as the predictor variable. Demographic variables (i.e., race, education level, and length of relationship) were entered into the model as co-variates of emotional reliance. The results indicate that the multiple regression equation was statistically significant,  $F(4,63) = 3.44$ ,  $p < .05$ ,  $R^2 = .18$ . Support was found for the main effect of emotional reliance ( $\beta = 0.35$ ,  $p < .01$ ) on intention to return, controlling for race, educational level, and length of relationship in years. The co-variates were not statistically significant. Race and education level are dummy coded (race-white; education level-some college).



Table 4

*Multiple Regression Analyses of Emotional Reliance on Another Person (Subscale), Controlling for Race, Educational Level and Length of Relationship in Years on Intention to Return*

Variable	B	SE B	$\beta$	<i>p</i>	$R^2$	95% CI	$\Delta R^2$	<i>F</i>
IDI-ER	.57	.19	0.35	.00**	.18	.20 – .94	.18	3.44
Race	.18	.22	0.10	.43		-.26 – .61		
Educational Level	.16	.24	0.08	.52		-.32 – .63		
Length of Relationship	.02	.01	0.16	.18		-.01 – .04		

*Note.* *N* = 70; *B* = unstandardized regression coefficient; *SE B* = standard error;  $\beta$  = beta or standardized regression coefficient; \**p* < .05, \*\**p* < .01;  $R^2$  = coefficient of determination; CI = confidence interval;  $\Delta R^2$  = change in coefficient of determination; *F* = degrees of freedom

**Hypothesis 2b: Battered Women With Higher Levels of Lack of Social Self-Confidence as Measured by the Interpersonal Dependency Inventory will Report Higher Levels of Intention to Return to a Domestically Violent Relationship than Battered Women with Lower Levels of Lack of Social Self-Confidence.**

A multiple regression analysis was used to test if there was a statistically significant relationship between lack of social self-confidence and intention to return. Table 5 provides the results of the multiple regression analysis where lack of social-confidence was entered as the predictor variable. Demographic variables (i.e., race, education level, and length of relationship) were entered into the model as co-variates of lack of social self-confidence. The results indicate that the multiple regression equation was not significant. Support was not found for the main effect of lack of social self-confidence on intention to return, controlling for race, education level, and length of relationship in years. The co-variates were not statistically significant. Race and education level are dummy coded (race-white; education level-some college).

Table 5

*Multiple Regression Analyses of Lack of Social Self-Confidence (Subscale), Controlling for Race, Educational Level and Length of Relationship in Years on Intention to Return*

Variable	B	SE B		<i>p</i>	$R^2$	95% CI	$\Delta R^2$	<i>F</i>
IDI-LS	.43	.22	0.24	.05	.11	-.00 – .86	.11	2.00
Race	.16	.23	0.09	.50		-.30 – .61		
Educational Level	.14	.25	0.07	.58		-.36 – .64		
Length of Relationship	.01	.01	0.15	.21		-.01 – .04		

*Note.*  $N = 70$ ;  $B$  = unstandardized regression coefficient;  $SE B$  = standard error;  $\beta$  = beta or standardized regression coefficient;  $*p < .05$ ,  $**p < .01$ ;  $R^2$  = coefficient of determination; CI = confidence interval;  $\Delta R^2$  = change in coefficient of determination;  $F$  = degrees of freedom

**Hypothesis 2c: Battered Women with Higher Levels of Assertion of Autonomy as Measured by the Interpersonal Dependency Inventory (Hirschfeld et al., 1977) will Report Lower Levels of Intention to Return to a Domestically Violent Relationship than Battered Women with Lower Levels of Assertion of Autonomy.**

A multiple regression analysis was used to test if there was a statistically significant relationship between assertion of autonomy and intention to return. Table 6 provides the results of the multiple regression analysis where assertion of autonomy was entered as the predictor variable. Demographic variables (i.e., race, education level, and length of relationship) were entered into the model as co-variates of assertion of autonomy. The results indicate that the multiple regression equation was not statistically significant. Support was not found for the main effect of assertion of autonomy on intention to return, controlling for race, education level, and length of relationship in years. The co-variates were not statistically significant. Race and education level are dummy coded (race-white; education level-some college).

Table 6

*Multiple Regression Analyses of Assertion of Autonomy (Subscale), Controlling for Race, Educational Level and Length of Relationship in Years on Intention to Return*

Variable	B	SE B		<i>p</i>	$R^2$	95% CI	$\Delta R^2$	<i>F</i>
IDI-AA	.10	.17	0.07	.55	.06	-.24 – .45	.06	1.04
Race	.16	.24	0.09	.69		-.31 – .63		
Educational Level	.19	.26	0.10	.75		-.32 – .70		
Length of Relationship	.01	.01	0.15	1.19		-.01 – .04		

*Note.*  $N = 70$ ;  $B$  = unstandardized regression coefficient;  $SE B$  = standard error;  $\beta$  = beta or standardized regression coefficient;  $*p < .05$ ,  $**p < .01$ ;  $R^2$  = coefficient of determination; CI = confidence interval;  $\Delta R^2$  = change in coefficient of determination;  $F$  = degrees of freedom

**Hypothesis 3: Battered Women with Higher Levels of Interpersonal Dependency as Measured by the Total Score from the Interpersonal Dependency Inventory (Hirschfeld et al., 1977) will Moderate the Relationship Between Lower Levels of Self-Efficacy and Higher Levels of Intention to Return to a Domestically Violent Relationship than Battered Women with Lower Levels of Interpersonal Dependency.**

Hierarchical multiple regression analysis was used to test whether the relationship between self-efficacy and interpersonal dependency are statistically significant indicators of intention to return. Self-efficacy, interpersonal dependency and demographic variables (i.e., race, education level, and length of relationship in years) were included in Step 1 of the hierarchical multiple regression analysis. Table 7 provides the results of the hierarchical multiple regression analysis where self-efficacy and interpersonal dependency were entered as the predictor variables and the demographic variables (i.e., race, education level, and length of relationship) were entered as co-variates. The results indicate that the multiple regression equation was statistically significant,  $F(5,62) = 2.94$ ,  $p < .05$ ,  $R^2 = .19$ . Support was found for the main effect of self-efficacy ( $\beta = -0.28$ ,  $p < .05$ ) but not for interpersonal dependency, on intention to return, controlling for race, educational level, and length of relationship in years. The co-variates were not statistically significant. Race and education level are dummy coded (race-white; education level-some college). The interaction of self-efficacy and interpersonal

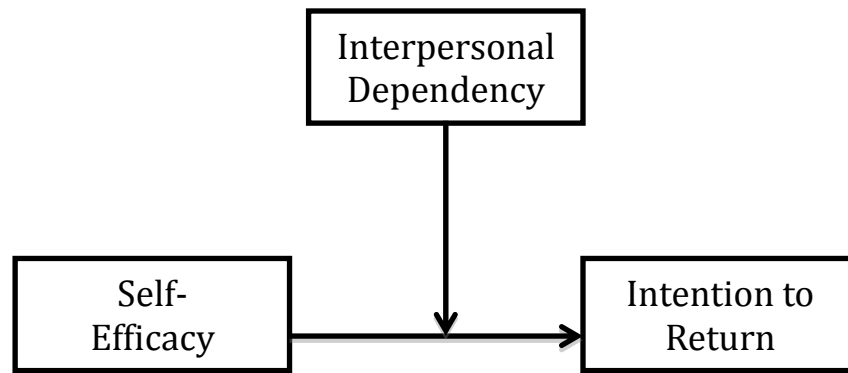
dependency (SESBW X IDI) was added in Step 2. The depiction of the path for the interaction of self-efficacy and interpersonal dependency (SESBW X IDI) is presented in Figure 1. The results indicate that the multiple regression equation was statistically significant,  $F(6,61) = 2.68$ ,  $p < .05$ ,  $\Delta R^2 = .21$ . However, contrary to my hypotheses, the interaction of self-efficacy and interpersonal dependency (SESBW X IDI) was not statistically significant; indicating there was no evidence of a moderation effect.

Table 7

*Hierarchical Multiple Regression Analyses of Interpersonal Dependency as a Moderator in the Relations Between Self-Efficacy, Controlling for Race, Educational Level and Length of Relationship in Years and Intention to Return*

Variable	B	SE B		$p$	$R^2$	95% CI	$\Delta R^2$	$F$
Step 1								
SESBW	-.62	.28	-0.28	.03*	.19	-1.18 – -.05	.19	2.94
IDI	.34	.32	0.14	.29		-.30 – .98		
Race	.20	.22	0.12	.36		-.24 – .64		
Educational Level	.18	.24	0.10	.46		-.30 – .66		
Length of Relationship	.02	.01	0.18	.13		-.01 – .04		
Step 2								
SESBW	.25	.80	0.12	.76	.21	-1.67 – 3.43	.21	2.68
IDI	1.56	1.10	0.63	.16		-1.35 – 1.85		
Race	.14	.23	0.08	.55		-.01 – .04		
Educational Level	.20	.24	0.11	.40		-.28 – .68		
Length of Relationship	.01	.01	0.13	.30		-.32 – .59		
SESBW X IDI	-.82	.71	-0.48	.25		-.64 – 3.77		

*Note.*  $N = 70$ ;  $B$  = unstandardized regression coefficient;  $SE B$  = standard error;  $\beta$  = beta or standardized regression coefficient; \* $p < .05$ , \*\* $p < .01$ ;  $R^2$  = coefficient of determination; CI = confidence interval;  $\Delta R^2$  = change in coefficient of determination;  $F$  = degrees of freedom



*Figure 1 Predicted Moderation Model: Interpersonal Dependency as a Moderator in the Relations Between Self-Efficacy and Intention to Return*

## CHAPTER V DISCUSSION

The purpose of the study was aimed at expanding the research community's understanding of interpersonal dependency and self-efficacy on intention to return. A secondary purpose of the study was to explore whether interpersonal dependency moderated the relationship between self-efficacy and intention to return. Three hypotheses were tested, and the findings provided mixed support. One hypothesis was fully supported, one hypothesis was partially supported, and one hypothesis was not supported. Hypothesis 1: *Battered women with higher levels of self-efficacy will report lower levels of intention to return to a domestically violent relationship than battered women with lower levels of self-efficacy*, was supported. Hypothesis 2a: *Battered women with higher levels of emotional reliance on another person as measured by the Interpersonal Dependency Inventory (Hirschfeld et al., 1977) will report higher levels of intention to return to a domestically violent relationship than battered women with lower levels of emotional reliance on another person*, was supported. Hypothesis 2b: *Battered women with higher levels of lack of social self-confidence as measured by the Interpersonal Dependency Inventory will report higher levels of intention to return to a domestically violent relationship than battered women with lower levels of lack of social self-confidence*, was not supported. Hypothesis 2c: *Battered women with higher levels of assertion of autonomy as measured by the Interpersonal Dependency Inventory (Hirschfeld et al., 1977) will report lower levels of intention to return to a domestically violent relationship than battered women with lower levels of assertion of autonomy*, was not supported. Hypothesis 3: *Battered women with higher levels of interpersonal dependency as measured by the total score from the Interpersonal Dependency Inventory (Hirschfeld et al., 1977) will moderate the relationship between lower levels of self-efficacy and higher levels of intention to return to a domestically violent*

*relationship than battered women with lower levels of interpersonal dependency*, was not supported. A discussion of the findings, limitations, implications for practice, and future research will follow.

### **Self-Efficacy on Intention to Return**

The findings indicate self-efficacy as a statistically significant predictor of intention to return, which is consistent with what was expected and confirms prior research (Katz, Tirone, Schukrafft, 2012; May, & Limandri, 2004; Schwarzer & Warner, 2013). Even with demographic variables (i.e., race, education level, and length of relationship; race and education level are dummy coded [race-white; education level-some college]) being entered as co-variates of self-efficacy, the findings still denote a main effect of self-efficacy was found. This answers the first research question and substantiates the negative relationship that battered women with higher levels of self-efficacy will report lower levels of intention to return to a violent relationship than battered women with lower levels of self-efficacy. For every plus one above the mean of self-efficacy ( $M = 18.17$ ;  $SD = 4.70$ ) the researcher can predict with confidence that intention to return will go down by  $-0.35$  ( $\beta$ ).

Although the co-variates individually were not statistically significant, the model as a whole was significant  $F(4,63) = 3.38$ ,  $p < .05$ ,  $R^2 = .18$ . This suggests that predictor variable and co-variates collectively impact intention to return.

### **Emotional Reliance on Another Person on Intention to Return**

The findings indicate emotional reliance on another person (subscale of IDI) as a statistically significant predictor of intention to return, which is consistent with what was expected and confirms prior research (Bornstein 2006, 2011; Dutton, 2007) Even with demographic variables (i.e., race, education level, and length of relationship; race and education

level are dummy coded [race-white; education level-some college]) being entered as co-variables of emotional reliance, the findings still denote a main effect of emotional reliance was found. This partially answers the researchers second research question and attests to the positive relationship that battered women with higher levels of emotional reliance as measured by the Interpersonal Dependency Inventory (Hirschfeld et al., 1977) will report higher levels of intention to return to a violent relationship than battered women with lower levels of emotional reliance. For every plus one above the mean of emotional reliance ( $M = 42.06$ ;  $SD = 9.53$ ) the researcher can predict with confidence that intention to return will go up by 0.35 ( $\beta$ ).

Although the co-variables individually were not statistically significant, the model as a whole was significant  $F(4,63) = 3.44$ ,  $p < .05$ ,  $R^2 = .18$ . This suggests that predictor variable and co-variables in combination impact intention to return, however, the researcher cannot say with certainty that the co-variables alone predict intention to return.

### **Lack of Social Self-Confidence on Intention to Return**

The findings indicate that lack of social self-confidence (subscale of IDI) was not a statistically significant predictor of intention to return, which is contrary to what was expected. Even with demographic variables (i.e., race, education level, and length of relationship; race and education level are dummy coded [race-white; education level-some college]) being entered as co-variables of lack of social self-confidence, the findings still denoted the main effect of lack of social self-confidence was not supported. This partially answers the researchers second research question and refutes the positive relationship that battered women with higher levels of lack of social self-confidence as measured by the Interpersonal Dependency Inventory (Hirschfeld et al., 1977) will report higher levels of intention to return to violent relationships than battered women with lower levels of lack of social self-confidence. The co-variables also were not statistically



significant, therefore, the researcher cannot say with certainty that the co-variates predict intention to return.

The findings indicate that the p-value of lack of social self-confidence was  $p = .05$  with a beta value of  $\beta = 0.24$ . Due to these values, the researcher postulates lack of social self-confidence was not supported in part due to having a small effect size; the small effect size could have impacted power. Additionally, several items in the lack of social self-confidence subscale were reverse coded, which could potentially effect how participants answered those questions; it is possible that participants misinterpreted phrases that included negation. In addition to several items being reverse coded, another potential explanation for lack of social self-confidence not being supported could be the variability among the items that were not reverse coded. The researcher speculates that error may have been caused due to limited items in the subscale as compared to the number of items in the other two subscales.

### **Assertion of Autonomy on Intention to Return**

The findings indicate that assertion of autonomy (subscale of IDI) was not a statistically significant predictor of intention to return, which is contrary to what was expected. Even with demographic variables (i.e., race, education level, and length of relationship; race and education level are dummy coded [race-white; education level-some college]) being entered as co-variates of assertion of autonomy, the findings still denoted the main effect of assertion of autonomy was not supported. This partially answers the researchers second research question and refutes the negative relationship that battered women with higher levels of assertion of autonomy as measured by the Interpersonal Dependency Inventory (Hirschfeld et al., 1977) will report higher levels of intention to return to violent relationships than battered women with lower levels of

assertion of autonomy. The co-variates also were not statistically significant, therefore, the researcher cannot say with certainty that the co-variates predict intention to return.

One potential explanation for why assertion of autonomy was not supported is because the reliability estimates of the scores for assertion of autonomy did not meet the standard cutoff criteria of .70 (Nunnally, 1978). Low reliability (Cronbach's alpha below .70) scores in the assertion of autonomy subscale of the Interpersonal Dependency Inventory has been noted in studies after the creation of the Interpersonal Dependency Inventory (Frank et al., 1987; Reich et al., 1987). Some postulate (Birtchnell, 1991; Bornstein 1992 & 1993) that the scores on assertion of autonomy do not show consistent predicted patterns of results on research of dependency, as do emotional reliance on another person and lack of social self-confidence scores. Birtchnell questions the inclusion of the assertion of autonomy subscale in the Interpersonal Dependency Inventory and states "it is impossible to tell from the questionnaire responses whether a person is denying dependence or is simply independent" (1991, p. 288). Past research asserts that the traits assessed in this subscale have not been shown to positively correlate with any objective, projective or behavioral index of dependency (Birtchnell, 1988, Bornstein, 1992, 1993 & 1994; Millon, 1981). Interestingly, theoretical models of dependency predict that assertion of autonomy should correlate negatively with scores on other dependency measures (Birtchnell, 1988, Bornstein, 1992, 1993 & 1994; Millon, 1981). Thus, results should be interpreted with caution.

### **Interpersonal Dependency as a Moderator Between Self-Efficacy and Intention to Return**

The findings indicate that the interaction of self-efficacy and interpersonal dependency (i.e., interaction variable) was not a statistically significant predictor of intention to return, which is contrary to what was expected. Even with demographic variables (i.e., race, education level,

and length of relationship; race and education level are dummy coded [race-white; education level-some college]) being entered as co-variates, and self-efficacy and interpersonal dependency being entered as predictor variables, the findings still denoted the main effect of the interaction variable was not supported; indicating there was no evidence of a moderation effect. This answers the researchers third research question and refutes the negative relationship that battered women with higher levels of interpersonal dependency will moderate the relationship between lower levels of self-efficacy and higher levels of intention to return to a violent relationship than battered women with lower levels of interpersonal dependency.

When self-efficacy, interpersonal dependency and demographic variables (i.e., race, education level, and length of relationship in years) were entered in Step 1 of the hierarchical multiple regression analysis, the model yielded as statistically significant  $F(5,62) = 2.94, p < .05, R^2 = .19$ . Support was found for the main effect of self-efficacy ( $\beta = -0.28, p < .05$ ), however, the main effect of interpersonal dependency was not supported. One potential explanation as to why interpersonal dependency was not supported could be due to the lack of statistical significance in two out of the three IDI subscales. Additionally, the co-variates were not statistically significant. The interaction variable was entered in Step 2 of the hierarchical multiple regression analysis and again, the model yielded as statistically significant  $F(6,61) = 2.68, p < .05, \Delta R^2 = .21$ . However, once the interaction variable was added, self-efficacy was no longer predictive of intention to return and the interaction variable was not supported. This suggests that the predictor variables, interaction variable and co-variates in tandem impact intention to return, however, the researcher cannot say with certainty that the co-variates alone, predictor variables alone, or the interaction variable alone within this model, predict intention to return. Therefore, contrary to my third hypothesis, the influence of the interaction variable may

not play a role in battered women's intentions to return to a violent relationship. A potential explanation as to why the interaction variable was not supported as well as why self-efficacy was no longer predictive of intention to return proposes that the way a person thinks about self is not solely influenced by the way they depend on a single other person.

### **Post-hoc Analyses**

**Self-Efficacy and Emotional Reliance on Another Person on Intention to Return.** In addition to the results above, the researcher determined that an additional analysis might further emphasize the findings of this study. The findings of this study indicate self-efficacy ( $\beta = -0.35$ ,  $p < .01$ ) and emotional reliance on another person ( $\beta = 0.35$ ,  $p < .01$ ) are statistically significant predictors of battered women's intention to return to a violent relationship. Due to these findings, the researcher was interested to see if results would be consistent if both variables were included in a model together. From this inquiry, a supplemental research question and hypothesis was formed:

#### *Question 4:*

Does self-efficacy and emotional reliance on another person predict battered women's intent to return to a domestically violent relationship?

#### *Hypothesis 4:*

Battered women with higher levels self-efficacy and lower levels of emotional reliance on another person as measured by the Interpersonal Dependency Inventory (Hirschfeld et al., 1977) will report lower levels of intention to return to a domestically violent relationship than battered women with lower levels of self-efficacy and higher levels of emotional reliance on another person.

A multiple regression analysis was used to test whether the relationship between self-efficacy and emotional reliance are statistically significant indicators of intention to return. Table 8 provides the results of the multiple regression analysis where self-efficacy and emotional reliance were entered as predictor variables and demographic variables (i.e., race, education level, and length of relationship) were entered as co-variates. Race and education level are dummy coded (race-white; education level-some college). The results indicate that the multiple regression equation was statistically significant,  $F(5,62) = 3.91, p < .01, R^2 = .24$ . Support was found for the main effect of self-efficacy ( $\beta = -0.26, p < .05$ ) and for the main effect of emotional reliance on another person ( $\beta = 0.27, p < .05$ ), on intention to return, controlling for race, educational level, and length of relationship in years. For every plus one above the mean of self-efficacy ( $M = 18.17; SD = 4.70$ ) the researcher can predict with confidence that intention to return will go down by  $-0.26$  ( $\beta$ ). For every minus one below the mean of emotional reliance ( $M = 42.06; SD = 9.53$ ) the researcher can predict with confidence that intention to return will go down by  $0.27$  ( $\beta$ ). Although the co-variates individually were not statistically significant, the model as a whole was significant  $F(5,62) = 3.91, p < .01, R^2 = .24$ . This suggests that predictor variables and co-variates collectively impact intention to return. This answers the researchers first post hoc research question and attests the negative relationship that battered women with higher levels self-efficacy and lower levels of emotional reliance on another person will report lower levels of intention to return to a domestically violent relationship than battered women with lower levels of self-efficacy and higher levels of emotional reliance on another person.

Table 8

*Multiple Regression Analyses of Self-Efficacy and Emotional Reliance on Another Person (Subscale), controlling for race, educational level and length of relationship in years on Intention to Return*

Variable	B	SE B	$\beta$	<i>p</i>	$R^2$	95% CI	$\Delta R^2$	<i>F</i>
SESBW	-.57	.26	-0.26	.03*	.24	-1.08 – -.06	.24	3.91
IDI-ER	.43	.19	0.27	.03*		.05 – .81		
Race	.20	.21	0.11	.36		-.23 – .62		
Educational Level	.16	.23	0.09	.49		-.30 – .62		
Length of Relationship	.02	.01	0.19	.10		-.00 – .04		

*Note.* *N* = 70; *B* = unstandardized regression coefficient; *SE B* = standard error;  $\beta$  = beta or standardized regression coefficient; \**p* < .05, \*\**p* < .01;  $R^2$  = coefficient of determination; CI = confidence interval;  $\Delta R^2$  = change in coefficient of determination; *F* = degrees of freedom

**Emotional Reliance on Another Person, and Lack of Social Self Confidence as a Moderator Between Self-Efficacy and Intention to Return.** In addition to the post hoc analysis above, the researcher determined that a second post hoc analysis might further emphasize the findings of this study. The findings in this study indicate that the reliability estimates of the scores for assertion of autonomy (IDI subscale) did not meet the standard cutoff criteria of .70 (Nunnally, 1978). Due to the potential impact the aforementioned may have on the IDI whole scale score, the researcher was interested to see if results would differ if Hypothesis 3 were rerun without the inclusion of the assertion of autonomy subscale. From this inquiry, a supplemental research question and hypothesis was formed:

*Question 5:*

Does emotional reliance on another person and lack of social self-confidence moderate the relationship between battered women's self-efficacy and intention to return to a domestically violent relationship?

*Hypothesis 5:*

Battered women with higher levels of emotional reliance on another person and higher levels of lack of social self-confidence will moderate the relationship between lower levels of self-efficacy and higher levels of intention to return to a domestically violent relationship than battered women with lower levels of emotional reliance on another person and lower levels of lack of social self-confidence.

Two hierarchical multiple regression analyses were used to test whether the relationship between self-efficacy, emotional reliance on another person and lack of social self-confidence are statistically significant indicators of intention to return.

Self-efficacy, emotional reliance on another person, and demographic variables (i.e., race, education level, and length of relationship in years) were included in Step 1 of the first hierarchical multiple regression analysis. Table 9 provides the results of the hierarchical multiple regression analysis where self-efficacy, and emotional reliance on another person were entered as the predictor variables and the demographic variables (i.e., race, education level, and length of relationship) were entered as co-variates. The results indicate that the multiple regression equation was statistically significant,  $F(5,62) = 3.91$ ,  $p < .01$ ,  $R^2 = .24$ . Support was found for the main effect of self-efficacy ( $\beta = -0.26$ ,  $p < .05$ ) and for the main effect of emotional reliance on another person ( $\beta = 0.27$ ,  $p < .05$ ), on intention to return, controlling for race, educational level, and length of relationship in years. However, the co-variates were not statistically significant. Race and education level are dummy coded (race-white; education level-some college).

The interaction of self-efficacy and emotional reliance on another person (SESBW X IDI-ER) was added in Step 2. The depiction of the path for the interaction of self-efficacy and

emotional reliance on another person (SESBW X IDI-ER) is presented in Figure 2. The results indicate that the multiple regression equation was statistically significant,  $F(6,61) = 3.26, p < .01$ ,  $\Delta R^2 = .00$ . However, contrary to my hypotheses, the interaction of self-efficacy, and emotional reliance on another person (SESBW X IDI-ER) was not statistically significant; indicating there was no evidence of a moderation effect. This partially answers the researchers second post-hoc research question and refutes the negative relationship that battered women with higher levels of emotional reliance on another person will moderate the relationship between lower levels of self-efficacy and higher levels of intention to return to a violent relationship than battered women with lower levels of emotional reliance on another person. Furthermore, once the interaction variable was added, self-efficacy and emotional reliance on another person were no longer predictive of intention to return and the interaction variable was not supported. This suggests that the predictor variables, interaction variable and co-variates in combination impact intention to return, however, the researcher cannot say with certainty that the co-variates alone, predictor variables alone, or the interaction variable alone within this model, predict intention to return. This confirms that there is no empirical evidence that the exclusion of the assertion of autonomy subscale in the Interpersonal Dependency Inventory statistically impacts this model. One potential explanation as to why the interaction variable was not supported as well as why self-efficacy and emotional reliance on another person were no longer predictive of intention to return proposes that the way a person thinks about self is not solely influenced by the degree or intensity in which they rely on a single other person.

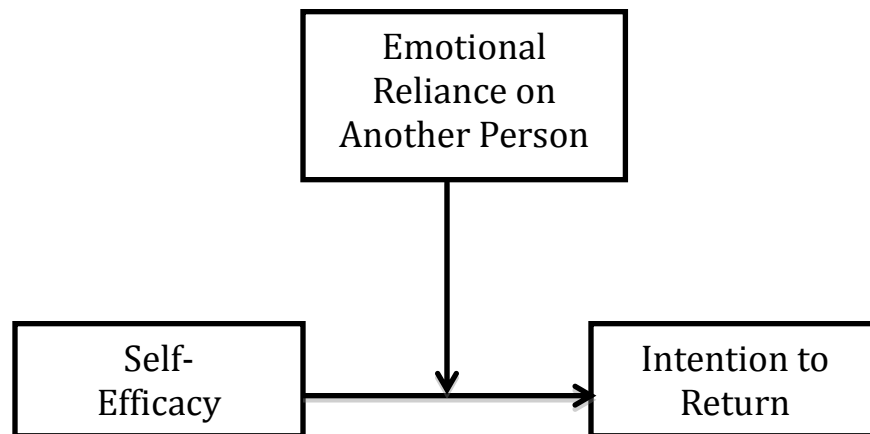


Table 9

*Hierarchical Multiple Regression Analyses of Emotional Reliance on Another Person (Subscale) as a Moderator in the Relations Between Self-Efficacy, controlling for race, educational level and length of relationship in years and Intention to Return*

Variable	B	SE B	$\beta$	<i>p</i>	$R^2$	95% CI	$\Delta R^2$	<i>F</i>
Step 1								
SESBW	-.57	.26	-0.26	.03*	.24	-1.08 – -.06	.24	3.91
IDI-ER	.43	.19	0.27	.03*		.05 – .81		
Race	.20	.21	0.11	.36		-.23 – .62		
Educational Level	.16	.23	0.09	.49		-.30 – .62		
Length of Relationship	.02	.01	0.19	.10		-.00 – .04		
Step 2								
SESBW	-.02	1.12	-0.01	.98	.24	-2.26 – 2.22	.00	3.26
IDI-ER	.77	.70	0.48	.28		-.63 – 2.16		
Race	.20	.21	0.11	.36		-.23 – .63		
Educational Level	.16	.23	0.08	.50		-.31 – .62		
Length of Relationship	.02	.01	0.18	.13		-.01 – .04		
SESBW X IDI-ER	-.22	.44	-0.28	.62		-1.11 – .66		

*Note.*  $N = 70$ ;  $B$  = unstandardized regression coefficient;  $SE B$  = standard error;  $\beta$  = beta or standardized regression coefficient; \* $p < .05$ , \*\* $p < .01$ ;  $R^2$  = coefficient of determination; CI = confidence interval;  $\Delta R^2$  = change in coefficient of determination;  $F$  = degrees of freedom



*Figure 2 Predicted Moderation Model: Emotional Reliance on Another Person as a Moderator in the Relations Between Self-Efficacy and Intention to Return*

Self-efficacy, lack of social self-confidence, and demographic variables (i.e., race, education level, and length of relationship in years) were included in Step 1 of the second

hierarchical multiple regression analysis. Table 10 provides the results of the hierarchical multiple regression analysis where self-efficacy, and lack of social self-confidence were entered as the predictor variables and the demographic variables (i.e., race, education level, and length of relationship) were entered as co-variables. The results indicate that the multiple regression equation was statistically significant,  $F(5,62) = 2.83$ ,  $p < .05$ ,  $R^2 = .19$ . Support was found for the main effect of self-efficacy ( $\beta = -0.30$ ,  $p < .05$ ) but not for lack of social self-confidence, on intention to return, controlling for race, educational level, and length of relationship in years. Additionally, the co-variables were not statistically significant. Race and education level are dummy coded (race-white; education level-some college). Explanations as to why the main effect of lack of social self-confidence was not supported are similar to the explanations provided for Hypothesis 2b (refer to section entitled *Lack of Social Self-Confidence on Intention to Return* in the current chapter).

The interaction of self-efficacy and lack of social self-confidence (SESBW X IDI-LS) was added in Step 2. The depiction of the path for the interaction of self-efficacy and lack of social self-confidence (SESBW X IDI-LS) is presented in Figure 3. The results indicate that the multiple regression equation was statistically significant,  $F(6,61) = 2.54$ ,  $p < .05$ ,  $\Delta R^2 = .01$ . However, contrary to my hypotheses, the interaction of self-efficacy, and lack of social self-confidence (SESBW X IDI-LS) was not statistically significant; indicating there was no evidence of a moderation effect. This partially answers the researchers second post-hoc research question and refutes the negative relationship that battered women with higher levels of lack of social self-confidence, will moderate the relationship between lower levels of self-efficacy and higher levels of intention to return to a violent relationship than battered women with lower levels of lack of social self-confidence. Furthermore, once the interaction variable was added, self-

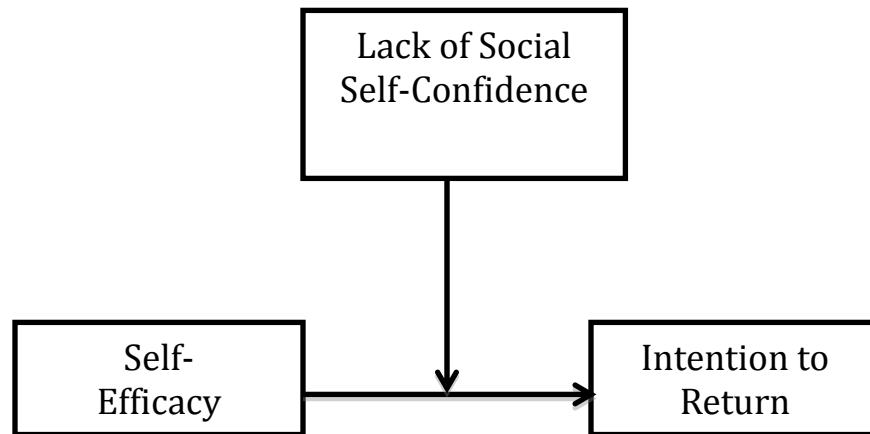
efficacy was no longer predictive of intention to return and the interaction variable was not supported. This suggests that the predictor variables, interaction variable and co-variables in tandem impact intention to return, however, the researcher cannot say with certainty that the co-variables alone, predictor variables alone, or the interaction variable alone within this model, predict intention to return. This confirms that there is no empirical evidence that the exclusion of the assertion of autonomy subscale in the Interpersonal Dependency Inventory statistically impacts this model. One potential explanation as to why the interaction variable (SESBW X IDI-LS) was not supported as well as why self-efficacy was no longer predictive of intention to return could be due to the fact that the main effect for IDI-LS was not supported prior to including it as part of the interaction variable. Another potential explanation proposes that the way a person thinks about self is not solely influenced by their relationships with other people in general.

Table 10

*Hierarchical Multiple Regression Analyses of Lack of Social Self-Confidence (Subscale) as a Moderator in the Relations Between Self-Efficacy, Controlling for Race, Educational Level and Length of Relationship in Years and Intention to Return*

Variable	B	SE B		<i>p</i>	<i>R</i> <sup>2</sup>	95% CI	$\Delta R^2$	<i>F</i>
Step 1								
SESBW	-.66	.28	-0.30	.02*	.19	-1.22 – -.10	.19	2.83
IDI-LS	-.19	.23	0.11	.41		-.27 – .66		
Race	.19	.22	0.11	.39		-.25 – .63		
Educational Level	.17	.24	0.09	.50		-.32 – .65		
Length of Relationship	.02	.01	0.19	.12		-.01 – .04		
Step 2								
SESBW	.73	1.37	0.34	.60	.20	-2.00 – 3.46	.01	2.54
IDI-LS	1.13	.93	0.63	.23		-.73 – 2.98		
Race	.15	.23	0.08	.52		-.30 – .60		
Educational Level	.19	.24	0.10	.43		-.29 – .68		
Length of Relationship	.01	.01	0.15	.22		-.01 – .04		
SESBW X IDI-LS	-.60	.58	-0.64	.30		-.1.76 – .56		

*Note.* *N* = 70; *B* = unstandardized regression coefficient; *SE B* = standard error;  $\beta$  = beta or standardized regression coefficient; \**p* < .05, \*\**p* < .01; *R*<sup>2</sup> = coefficient of determination; CI = confidence interval;  $\Delta R^2$  = change in coefficient of determination; *F* = degrees of freedom



*Figure 3 Predicted Moderation Model: Lack of Social Self-Confidence as a Moderator in the Relations Between Self-Efficacy and Intention to Return*

### Limitations

As with any research, this study contained a number of limitations. Results must be interpreted with the knowledge that causal inferences cannot be made. One limitation of the

current study is the use of a purposive sample. In this study, a purposive sample may have led to the under-representation or over-representation of particular groups within the sample. The researcher only recruited battered women residing in shelters, making the data less generalizable to other populations of battered women who left their abusive relationship and took refuge elsewhere. Additionally, the researchers sample size ( $N=70$ ) is a limitation of the current study. Though the researcher conducted A priori analysis, which determined the sample size, the researcher predicted a medium effect size but resulted with a small effect size. This indicates that a larger sample size could have been helpful in increasing reliability of a true effect. An additional limitation is that this study is a cross-sectional analysis. Therefore, the researcher looked at data collected at a single point in time, rather than over a period of time. In using cross-sectional analysis the researcher cannot account for actual return rate over a substantial follow-up period.

Another limitation pertains to the self-report nature in which the data was collected. While self-report measures are useful in gathering information about one's perception of their unique experience, as with any study utilizing self-reported measures, this study was susceptible to the following problems: a) bias due to participant's desire to answer items in a socially desirable manner, b) a reflection of anticipated behavior versus actual attitudes and behaviors, and c) interpretation of the items on the measures differently than was originally intended by the authors. The controversial nature of the study (examining interpersonal dependency and self-efficacy on intention to return to a violent relationship) increases the likelihood of social desirability affecting the results. For instance, some of the women in this study may have answered questions in such a way that they underreported, over-reported, or neglected to report certain aspects of their experience.

The Interpersonal Dependency Inventory (Hirschfeld et al., 1977) posed its own unique set of limitations in this study. The IDI was originally normed on two samples. Sample 1 consisted of 220 college students. Of the 220 students, 88 were men and 132 were women. Sample 1 had a mean age of 24 with predominantly Caucasian identities. Sample 2 consisted of 180 psychiatric patients. Of the 180 patients, 76 were men and 104 were female. Sample 2 had a mean age of 34 with predominantly Caucasian identities. Approximately 70% of Sample 2 attended one or more years of college. Although the IDI was normed on a different subset of participants than this study, the IDI was selected for this study because it's one of the most commonly used self-report measures of dependency (Bornstein, 1994; Pincus & Gurtman, 1995) and interpersonal dependency has been linked as a risk factor of domestic violence, especially amongst perpetrators (Bornstein 2007, & 2011; Chronister, 2007). Additionally, the researcher wanted to understand the role of battered women's interpersonal dependency on intention to return to a violent relationship and therefore surmised that the IDI was warranted as a suitable measure for this study. However, due to the aforementioned reasons, (i.e., normed on predominately white college students and predominately white psychiatric patients with one or more years of college) using the IDI as a measure for this study's population is a limitation. Additionally, the authors of the IDI never adequately standardized a method to calculate a total score from the inventory's subscales; thus, different investigators have used different means of calculating interpersonal dependency scores or have used only subscale scores (Bornstein, 1994; Pincus & Gurtman, 1995). Therefore the utility of the IDI as a measure of interpersonal dependency is limited. This study utilized Bornstein's (1998) formula to derive a whole-scale score for the IDI ( $1 \times ER + 1 \times LS - 1 \times AA$ ).

## **Implications for Practice**

Despite the limitations discussed above, the findings of the current study have implications for individuals who work with battered women. For starters, individuals working with battered women must be aware of the influence self-efficacy and emotional reliance may have on battered women's intention to return to a violent relationship. As previously mentioned in Chapter 2, several authors suggest that self-efficacy functions from an internal drive and draws from like principles such as self-esteem, motivation, resilience, independence, pursuit of goals, and self-concept (Danis, 2004; Kia-Keating et al., 2010; Thompson, Short, Kaslow, & Wyckoff, 2002; Wettersten et. al, 2004). Therefore, effectively addressing the sources of efficacy in relation to what battered women need to permanently leave an abusive relationship and direct their own life with safety and without fear of abuse as well as increasing emotional reliance within self, may be the key to successfully eliminating intentions to return to violent relationships. With the correct opportunities for staff development and the guidance and support of effective administrative leaders of shelters, therapists, and advocates of battered women can progress in their understanding of battered women's experience with leave-return decision-making (Danis, 2004; Panzer, Phillip, Hayward, 2000). Additionally, it is essential for therapist in training to be educated on the facets of psychological internalization so that they are aware of and understand the propensity for battered women to: (1) deny an abusive relationship exists, (2) accept blame, and (3) leave and later return. An equally important implication is the need to create more and/or improve comprehensive intervention and/or prevention programs within the shelter environment. Targeted and widespread education is imperative to any prevention effort, particularly one so aptly described as a "closet epidemic" (Harrelson, 2013). These programs may serve as a vehicle to discuss the influences of intent to return with battered women,

providing them with opportunities to hear messages that may give light to their experience, in addition to providing them the necessary information and tools that may lead to better survival strategies that endorse courage for them to permanently leave an abusive relationship.

Although interpersonal dependency did not moderate the relationship between self-efficacy and intention to return, interpersonal dependency was positively correlated to intention to return. Thus, fostering thoughts, beliefs, feelings and behaviors in battered women that revolve around empowering self-sufficiency, social self-confidence and emotional reliance on self is likely to lead to more outcomes of battered women permanently extricating themselves from violent relationships. Ultimately, establishing/increasing self-sufficiency, social self-confidence and emotional reliance on self can help battered women navigate a life free from violence and can help them to successfully thrive.

### **Future Research**

While the findings reported above contribute to the body of research of understanding variables that impact intention to return, many questions remain unanswered regarding the role of interpersonal dependency. To increase validity, the current study should be replicated with a larger sample size, which could increase variability, and decrease error. One promising future direction would be to conduct controlled longitudinal research that accounts for actual return over a substantial follow-up period, this way, research could support causal inferences about interpersonal dependency on intention to return. Future research is also needed to gain a better understanding of the contextual correlates of intention to return. Research could compare intention to return among battered women who seek refuge in shelters versus battered women who seek refuge elsewhere (i.e., with friends/family). This would explore whether contextual factors such as social support significantly impact intention to return. Since the study's findings



suggest that the main effect of interpersonal dependency on intention to return was not supported, future research should explore the relationship between interpersonal dependency and intention to return on other dependency measures. Given the statistically significant findings of this study, it is recommended that future research further investigate the relationship between self-efficacy and emotional reliance among battered women. Finally, future research should also focus on developing and testing interventions and treatment programs designed to facilitate battered women's attempts to make the necessary changes to leave and never return to a domestically violent relationship.

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**Appendix A**  
**HSIRB Approval**

## Appendix A: HSIRB Approval

WESTERN MICHIGAN UNIVERSITY



Human Subjects Institutional Review Board

Date: November 10, 2014

To: Joseph Morris, Principal Investigator  
Erin Jenkins, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number 14-10-43

This letter will serve as confirmation that your research project titled "Interpersonal Dependency, Self-Efficacy, and Intention to return to a Domestically Violent Relationship" has been **approved** under the **exempt** category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may **only** be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., ***you must request a post approval change to enroll subjects beyond the number stated in your application under "Number of subjects you want to complete the study."*** Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

**Reapproval of the project is required if it extends beyond the termination date stated below.**

The Board wishes you success in the pursuit of your research goals.

**Approval Termination: November 9, 2015**

251 W. Walwood Hall, Kalamazoo, MI 49008-5456  
PHONE: (269) 387-8293 FAX: (269) 387-8276

**Appendix B**  
**Informational Flyer**

## Appendix B: Informational Flyer

# PARTICIPANTS WANTED!

As part of her doctoral dissertation requirements, Erin N. Jenkins, M.S., in collaboration with Dr. Joseph R. Morris from Western Michigan University's Department of Counselor Education and Counseling Psychology is inviting you to participate in a study looking at factors that may influence women to return to abusive relationships.

### **Who qualifies? Individuals must:**

- at least be 18 years old
- at least be able to read English at the 8<sup>th</sup> grade level
- speak English

### **What will you be asked to do?**

- Complete 4 surveys, lasting approximately 30 minutes
- Participants who complete the 4 surveys will be eligible for a \$10 gift certificate. The deserving participant will receive the gift certificate following the completion of the surveys.

All of the information collected from you will remain **CONFIDENTIAL**. All participation is voluntary and **ANONYMOUS**. As a participant in this study, you may refuse to participate or quit at **ANY** time without any prejudice or penalty. If you are interested in participating in this study, please attend the informational meeting to receive more specific information and to complete the surveys. The meeting will be held in (This Room), on (This Day), at (This Time). Erin Jenkins can be contacted via phone at (469) 684-9769 or e-mailed at [erin.n.jenkins@wmich.edu](mailto:erin.n.jenkins@wmich.edu).

*Thank You*



**Appendix C**  
**Invitation to Study Script**

### **Appendix C: Invitation to Study Script**

Hello, my name is Erin Jenkins. I am a doctoral student in the Counseling Psychology Program at Western Michigan University. I am conducting a research project entitled “Interpersonal dependency, self-efficacy and intention to return to a domestically violent relationship.” The purpose of this study is to gain a better understanding of how interpersonal dependency and self-efficacy impact battered women’s intention to return to their domestically violent relationships. This study is being conducted under the supervision of Dr. Joseph R. Morris as part of my dissertation requirements. This study involves completing four surveys. Individuals that meet the following criteria will be invited to participate in the study: (1) must be at least 18 years old, (2) must at least read English at the 8<sup>th</sup> grade level and (3) must speak English.

The surveys will take approximately 30 minutes to complete. The surveys request anonymous information concerning demographic data, attitudes, feelings and behavior regarding your involvement in a domestically violent relationship. All data is completely anonymous and confidential, so please do not put your name anywhere on the form. All participation is voluntary, so you can ask questions, skip items or withdraw from the study at any time without penalty.

Individuals who do not wish to participate or do not meet the study’s eligibility requirements may leave. Thank you for your time and thank you for listening. However, if you meet the study’s eligibility requirements and are interested in participating, I will give you a survey packet. The survey packet contains four surveys and the HSIRB’s letter of informed consent. Please read the letter of informed consent before starting the surveys. After you have completed the survey packet please return it to me. Upon completion of the survey packet, you

will be eligible to enter a raffle for a \$20 gift certificate as compensation for your anonymous participation in this study.

Thank you. I greatly appreciate your participation in this research project.

**Appendix D**  
**E-mail Script**

## **Appendix D: E-mail Script**

Dear Administrator's Name,

Hello, my name is Erin Jenkins. I am writing to ask for your permission to collect data for my dissertation in your shelter facility. I am a doctoral candidate in the Counseling Psychology program at Western Michigan University, and my dissertation advisor is Dr. Joseph R. Morris. I am conducting a study entitled "Interpersonal dependency, self-efficacy and intention to return to a domestically violent relationship." The purpose of this study is to gain a better understanding of how interpersonal dependency and self-efficacy impact battered women's intention to return to their domestically violent relationships.

This study hopes to provide more knowledge and increased awareness about domestic violence to battered women. Furthermore, this study will help researchers, psychologists, and mental health professionals better understand the factors that make it difficult for many women to leave abusive relationships as well as help them to better serve battered women clients. The knowledge that is gained from this project can help to improve policy decision-making as it relates to domestic violence and help to improve future prevention and intervention efforts.

I would greatly appreciate your permission to come to "name of shelter" during "stated week" to gather data for this study. The survey packet will take approximately 30 minutes for the women to complete. The women will be informed about the nature of the study, to complete the questionnaires independently, and to return the packet when finished. All participation is voluntary, so the women can ask questions, skip items or withdraw from the study at any time without penalty. All data will be anonymous and maintained in a confidential manner. To further ensure protection and make sure the information is not identifiable, the women's names will not be listed on the surveys. Each survey will be assigned a code number. No one will have

access to the data except the researchers. Data will be used for research purposes only and will be maintained for a period of three years and then destroyed by shredding. Qualitative data may need to be reported but in a way that reflects the ability to protect the women from any compromised anonymity. As compensation for anonymous participation in this study, the women who complete their survey packet will be eligible to enter a raffle for a \$10 gift certificate that will be drawn and given to the designated participant after all participants have finished their packet. Individuals that meet the following criteria will be invited to participate in the study: (1) must be at least 18 years old, (2) must at least read English at the 8th grade level, and (3) must speak English. Individuals who do not wish to participate or do not meet the study's eligibility requirements are thanked for their time and invited to leave the study.

I greatly appreciate your understanding, time, flexibility and assistance in allowing me to come to your shelter facility to collect research for my dissertation. Please feel free to contact me, Erin Jenkins at [erin.n.jenkins@wmich.edu](mailto:erin.n.jenkins@wmich.edu) or (469) 684-9769 or Dr. Joseph R. Morris at [joseph.morris@wmich.edu](mailto:joseph.morris@wmich.edu) or (269) 387-5112 if you have any questions. You may also contact the Chair of the Human Subjects Institutional Review Board at (269) 387-8293 or the Vice President for Research at (269) 387-8298. Thank you very much!

Sincerely,

Erin Jenkins

Doctoral Candidate, Counseling Psychology

Western Michigan University

**Appendix E**  
**Telephone Script**

## **Appendix E: Telephone Script**

Hello, my name is Erin Jenkins. Last week I was unsuccessful at contacting you by email. I am contacting you to ask for your permission to collect data for my dissertation in your shelter facility. Do you have a few minutes to spare?

*(If the answer is no)*

No problem and thank you so much for your time. Have a good day.

*(If the answer is yes)*

Great! I am a doctoral candidate in the Counseling Psychology program at Western Michigan University, and my dissertation advisor is Dr. Joseph R. Morris. I am conducting a study entitled “Interpersonal dependency, self-efficacy and intention to return to a domestically violent relationship.” The purpose of this study is to gain a better understanding of how interpersonal dependency and self-efficacy impact battered women’s intention to return to their domestically violent relationships.

This study hopes to provide more knowledge and increased awareness about domestic violence to battered women. Furthermore, this study will help researchers, psychologists, and mental health professionals better understand the factors that make it difficult for many women to leave abusive relationships as well as help them to better serve battered women clients. The knowledge that is gained from this project can help to improve policy decision-making as it relates to domestic violence and help to improve future prevention and intervention efforts. I would greatly appreciate your permission to come to “name of shelter” during “stated week” to gather data for this study. The survey packet will take approximately 30 minutes for the women to complete. All participation is voluntary, so the women can ask questions, skip items or withdraw from the study at any time without penalty. The women will be informed about the



nature of the study, to complete the questionnaires independently, and to return the packet when finished. All data will be completely anonymous and maintained in a confidential manner. To further ensure protection and make sure the information is not identifiable, the women's names will not be listed on the surveys. Each survey will be assigned a code number. No one will have access to the data except the researchers. Data will be used for research purposes only and will be maintained for a period of three years and then destroyed by shredding. Qualitative data may need to be reported but in a way that reflects the ability to protect the women from any compromised anonymity. As compensation for anonymous participation in this study, the women who complete their survey packet will be eligible to enter a raffle for a \$10 gift certificate that will be drawn and given to the designated participant after all participants have finished their packet.

Individuals that meet the following criteria will be invited to participate in the study: (1) must be at least 18 years old, (2) must at least read English at the 8<sup>th</sup> grade level, and (3) must speak English. Individuals who do not wish to participate or do not meet the study's eligibility requirements are thanked for their time and invited to leave the study.

Do you have any questions? Will you allow me permission to collect data for my dissertation in your shelter facility?

*(If the answer is no)*

No problem and thank you so much for your time. Have a good day.

*(If the answer is yes)*

Great! I would like to schedule an appointment that is convenient for you, so I can come to distribute the surveys.

Let me confirm that you are scheduled on \_\_\_\_\_ at \_\_\_\_\_ am/pm.  
(Date) (Time)

I greatly appreciate your understanding, time, flexibility and assistance in allowing me to come to your shelter facility to collect research for my dissertation. Please feel free to contact me at [erin.n.jenkins@wmich.edu](mailto:erin.n.jenkins@wmich.edu) or (469) 684-9769 or Dr. Joseph R. Morris at [joseph.morris@wmich.edu](mailto:joseph.morris@wmich.edu) or (269) 387-5112 if you have any questions. You may also contact the Chair of the Human Subjects Institutional Review Board at (269) 387-8293 or the Vice President for Research at (269) 387-8298.

Thank you very much!

**Appendix F**  
**Demographic Questionnaire**

## **Appendix F: Demographic Questionnaire**

1. Race/Ethnicity (Please circle one)
  - A. African American/Black
  - B. Caucasian/White
  - C. Latina/Hispanic
  - D. Other (Please specify): \_\_\_\_\_
2. Age \_\_\_\_\_
3. Relationship Status (Please circle one):
  - A. Single (Never Married)
  - B. Married
  - C. Separated or Legally Separated
  - D. Divorced
  - E. Widowed
4. Before you came to this shelter were you living with your significant other/spouse?  
(Please circle one):
  - A. Yes
  - B. No
5. How long have you been in your current relationship/marriage? (Please specify months/years): \_\_\_\_\_
6. How long have you known your significant other/spouse? (Please specify months/years): \_\_\_\_\_

7. Are you currently employed? (Please circle one):
- A. Yes
  - B. No
8. If yes, do you work:
- A. Part-time (0-20 hours a week)
  - B. Full-time (21 hours a week and above)
9. What is your current annual income? (Please circle one):
- A. Less than \$10, 000
  - B. \$10,000 – \$19, 999
  - C. \$20, 000 -- \$29, 999
  - D. \$30, 000 -- \$39, 999
  - E. \$40, 000 – \$49, 999
  - F. \$50,000 and above
10. Has your employment/income been affected by your relationship/marriage? (Please circle one):
- A. Yes
  - B. No

11. What is the highest level of education achieved? (Please circle one):
- A. Some High School or Less
  - B. High School Diploma/G.E.D.
  - C. Some Technical/Vocational School
  - D. Technical/Vocational School Graduate
  - E. Some College
  - F. College Graduate
  - G. Some Graduate School (Higher Education for example: Master's, Doctorate)
  - H. Master's Degree or Higher
12. How many children do you have? (Please specify): \_\_\_\_\_
13. How many times prior to this have you left your spouse/significant other then returned to him? (Please specify): \_\_\_\_\_
14. How many times prior to this have you left your spouse/significant other and gone to a shelter? (Please specify): \_\_\_\_\_
15. How many days have you been at this shelter? \_\_\_\_\_
16. What type (s) of abuse led you to seek help from this shelter? (Please circle all that apply)
- A. Physical (for example: hit, punch, kick, throws objects)
  - B. Sexual (for example: injures genitals, forces you to have sex)
  - C. Psychological (for example: belittles you, gets angry if dinner, laundry or housework isn't done when he wants it done, tells you that you are ugly or unattractive)

17. If it was physical abuse, how severe was it?

- A. Mild (for example: no obvious physical scars)
- B. Moderate (for example: some scars and bruising)
- C. Great (for example: scars, bruising, and required medical attention)

18. If it was sexual abuse, how severe was it?

- A. Mild (for example: forced kissing)
- B. Moderate (for example: forced kissing, and unwanted fondling)
- C. Great (for example: forced kissing, unwanted fondling, and forced vaginal, anal or oral sex)

19. If it was psychological abuse, how severe was it?

- A. Mild (for example: bribes me to get me to do things I do not like or enjoy)
- B. Moderate (for example: bribes me to get me to do things I do not like or enjoy, insults me and shames me)
- C. Great (for example: bribes me to get me to do things I do not like or enjoy, insults me, shames me, frightens me and threatens to hurt or kill me)

20. How much support do you receive from family?

- A. None
- B. A little support
- C. Moderate support
- D. A lot of support

21. How much support do you receive from friends?

- A. None
- B. A little support
- C. Moderate support
- D. A lot of support

22. At this time, what are your plans once you leave this shelter?

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23. What resources (for example: money, housing, transportation) do you have to make your plans work?

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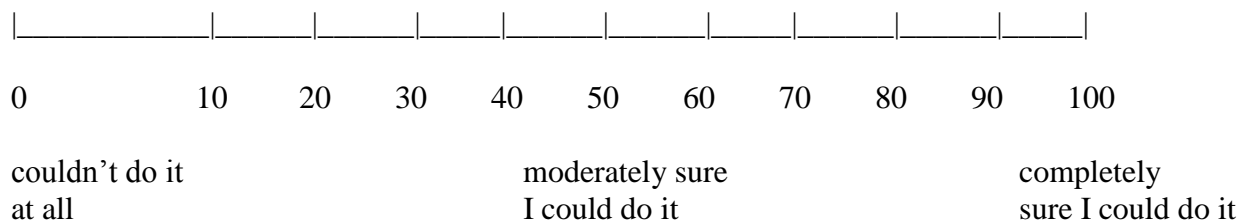
**Appendix G**  
**Self-Efficacy Scale of Battered Women (SESBW) (Varvaro & Palmer, 1993)**

## Appendix G: Self-Efficacy Scale of Battered Women (SESBW) (Varvaro & Palmer, 1993)

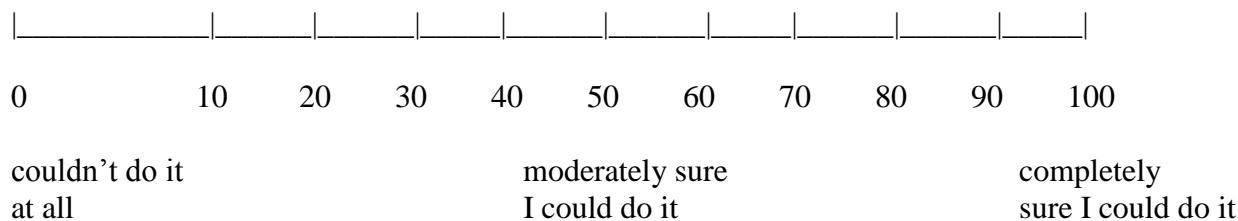
Directions: We would like to know how sure you are that you can do the following behaviors.

To indicate how sure you are, mark an X on the line that best reflects your level of sureness.

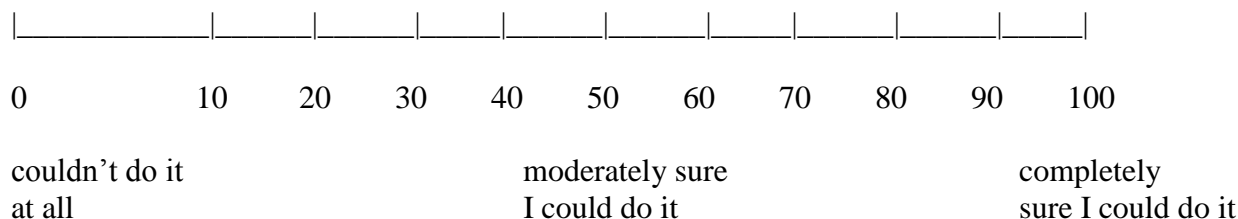
Example: Can be in control of my own life.



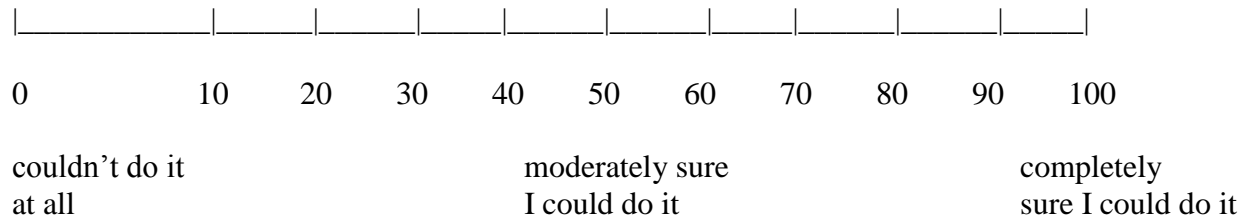
**1.** Can ask for help by talking to the nurse or doctor about my abusive situation.



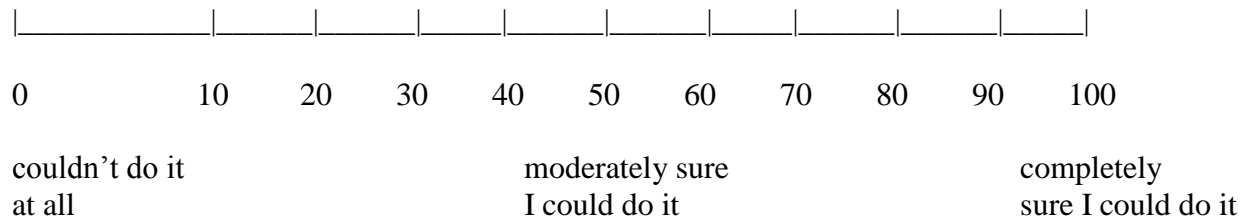
**2.** Can spend time telling someone such as a close friend/counselor the facts about my abusive situation.



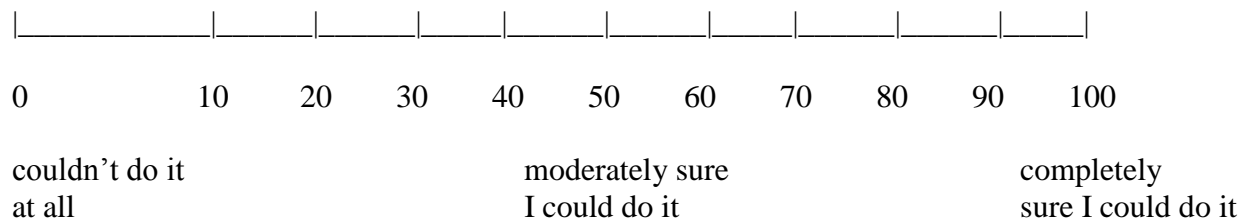
**3. Can ask for help by calling a shelter hotline for abused women.**



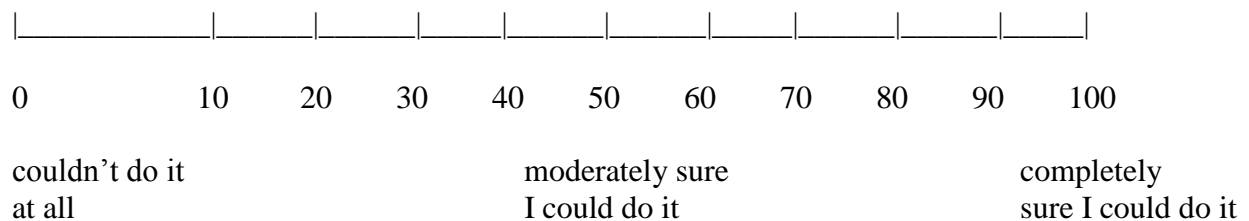
**4. Can plan ahead to ensure safety when and if I choose to leave the abusive relationship.**



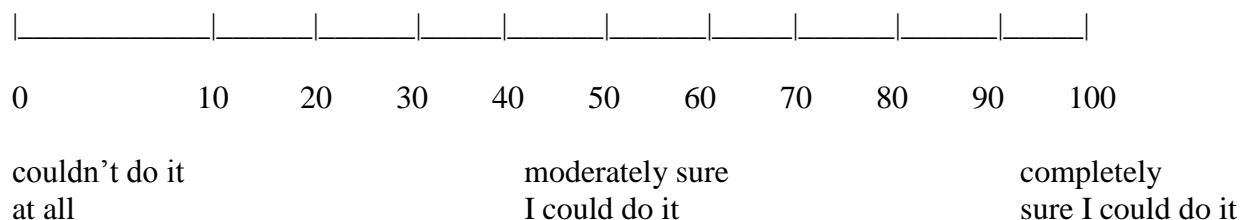
**5. Can do things I normally enjoy without fear of being abused.**



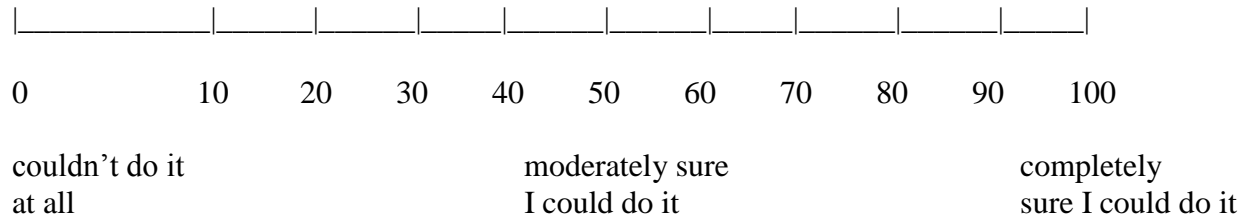
**6. Can shrug off self-doubts.**



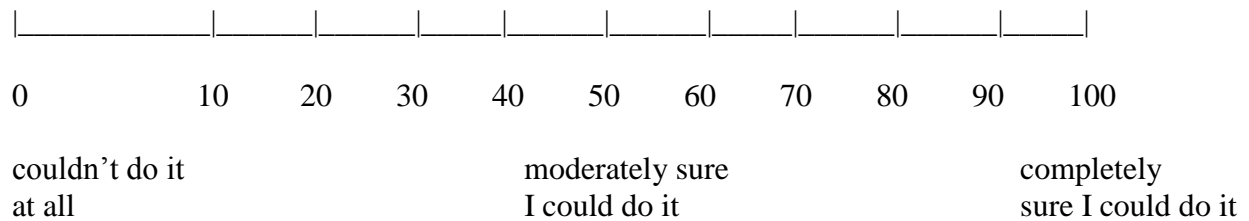
**7. Can make plans for living on my own without the abusive relationship.**



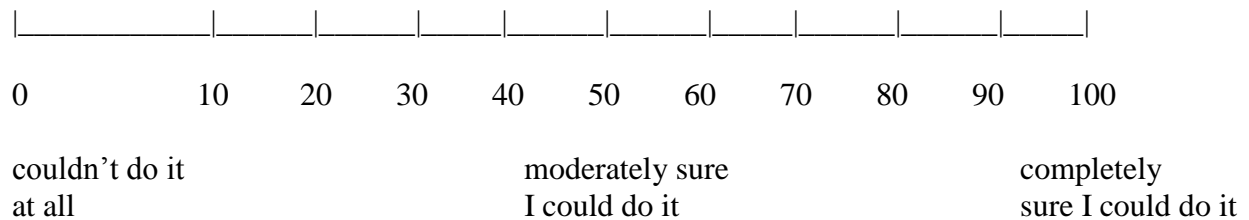
**8.** Can accept the fact that abuse is not my fault.



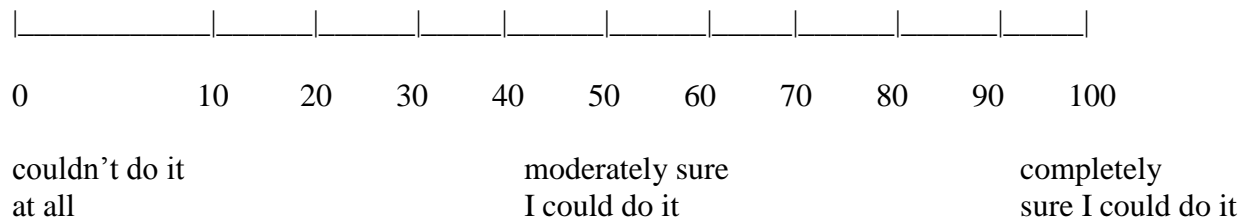
**9.** Can make up my own mind about small to moderate changes in my life (such as choosing an appropriate wardrobe, eating foods I like, time to visit friends or family).



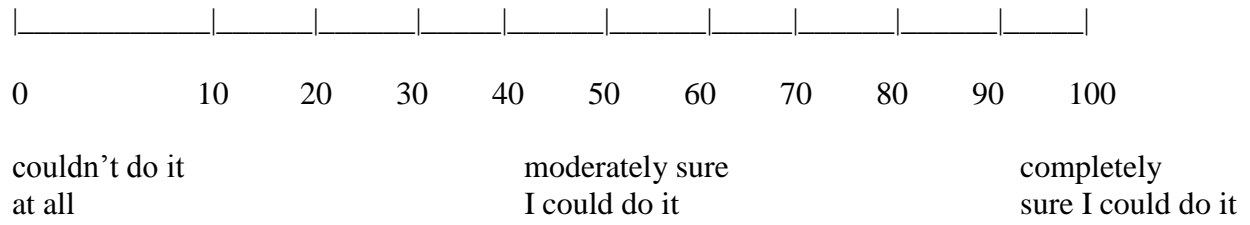
**10.** Can make up my own mind about large changes in my own life (such as finding an apartment, getting a job, or returning to school).



**11.** Can carry on normal activities of daily living.



**12.** Can say what I think and feel without fear.



**Appendix H**  
**Interpersonal Dependency Inventory (IDI) (Hirschfeld et al., 1977)**

## **Appendix H: Interpersonal Dependency Inventory (IDI) (Hirschfeld et al., 1977)**

Instructions: 48 statements are presented below. Please read each one and decide whether or not it is characteristic of your attitudes, feelings, or behavior. Then assign a rating to every statement, using the values given below:

4 = very characteristic of me

3 = quite characteristic of me

2 = somewhat characteristic of me

1 = not characteristic of me

- \_\_\_\_\_ 1. I prefer to be by myself.
- \_\_\_\_\_ 2. When I have a decision to make, I always ask for advice.
- \_\_\_\_\_ 3. I do my best work when I know it will be appreciated.
- \_\_\_\_\_ 4. I can't stand being fussed over when I am sick.
- \_\_\_\_\_ 5. I would rather be a follower than a leader.
- \_\_\_\_\_ 6. I believe people could do a lot more for me if they wanted to.
- \_\_\_\_\_ 7. As a child, pleasing my parents was very important to me.
- \_\_\_\_\_ 8. I don't need other people to make me feel good.
- \_\_\_\_\_ 9. Disapproval by someone I care about is very painful for me.
- \_\_\_\_\_ 10. I feel confident of my ability to deal with most of the personal problems I am likely to meet in my life
- \_\_\_\_\_ 11. I'm the only person I want to please.
- \_\_\_\_\_ 12. The idea of losing a close friend is terrifying to me.
- \_\_\_\_\_ 13. I am quick to agree with the opinions expressed by others.
- \_\_\_\_\_ 14. I rely only on myself.

- \_\_\_\_\_ 15. I would be completely lost if I didn't have someone special.
- \_\_\_\_\_ 16. I get upset when someone discovers a mistake I have made.
- \_\_\_\_\_ 17. It is hard for me to ask someone for a favor.
- \_\_\_\_\_ 18. I hate it when people offer me sympathy.
- \_\_\_\_\_ 19. I easily get discouraged when I don't get what I need from others.
- \_\_\_\_\_ 20. In an argument, I give in easily.
- \_\_\_\_\_ 21. I don't need much from people.
- \_\_\_\_\_ 22. I must have one person who is very special to me.
- \_\_\_\_\_ 23. When I go to a party, I expect that the other people will like me.
- \_\_\_\_\_ 24. I feel better when I know someone else is in command.
- \_\_\_\_\_ 25. When I am sick, I prefer that my friends leave me alone.
- \_\_\_\_\_ 26. I'm never happier than when people say that I have done a good job.
- \_\_\_\_\_ 27. It is hard for me to make up my mind about a TV show or movie until I know what other people think.
- \_\_\_\_\_ 28. I am willing to disregard other people's feelings in order to accomplish something that's important to me
- \_\_\_\_\_ 29. I need to have one person who puts me above all others.
- \_\_\_\_\_ 30. In social situations I tend to be very self-conscious.
- \_\_\_\_\_ 31. I don't need anyone.
- \_\_\_\_\_ 32. I have a lot of trouble making decisions by myself.
- \_\_\_\_\_ 33. I tend to imagine the worst if a loved one doesn't arrive when expected.
- \_\_\_\_\_ 34. Even when things go wrong I can get along without asking for help from my



friends.

- \_\_\_\_\_ 35. I tend to expect too much from others.
- \_\_\_\_\_ 36. I don't like to buy clothes by myself.
- \_\_\_\_\_ 37. I tend to be a loner.
- \_\_\_\_\_ 38. I feel that I never really get all that I need from people.
- \_\_\_\_\_ 39. When I meet new people, I'm afraid that I won't do the right thing.
- \_\_\_\_\_ 40. Even if most people turned against me, I could still go on if someone I love stood by me.
- \_\_\_\_\_ 41. I would rather stay free of involvement with others than to risk disappointments.
- \_\_\_\_\_ 42. What people think of me doesn't affect how I feel.
- \_\_\_\_\_ 43. I think that most people don't realize how easily they can hurt me.
- \_\_\_\_\_ 44. I am very confident about my own judgment.
- \_\_\_\_\_ 45. I have always had a terrible fear that I will lose the love and support of people I desperately need.
- \_\_\_\_\_ 46. I don't have what it takes to be a good leader.
- \_\_\_\_\_ 47. I would feel helpless if deserted by someone I love.
- \_\_\_\_\_ 48. What other people say doesn't bother me.

**Appendix I**  
**Intention to Return Questionnaire (Gordon et al., 2004)**

### Appendix I: Intention to Return (Gordon et al., 2004)

Please respond to these statements, using the following scale, based on your **current feelings** about your relationship and partner.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree

- \_\_\_\_\_ 1. I miss my partner a lot.
- \_\_\_\_\_ 2. I plan to see my partner again.
- \_\_\_\_\_ 3. I don't want to go home to my partner.
- \_\_\_\_\_ 4. I am going to give my relationship with my partner another chance.
- \_\_\_\_\_ 5. I wish my partner and I could make our relationship work.
- \_\_\_\_\_ 6. When I leave this shelter, I will go back to my partner.