

**FACTORS MEDIATING AND MODERATING THE RELATION  
BETWEEN ABUSE AND COMMITMENT**

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A Thesis

Presented to

The Faculty of the Department

of Psychology

University of Houston

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In Partial Fulfillment

Of the Requirements for the Degree of

Masters of Arts

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By

Andrea L. Potthoff

May, 2013

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ABUSE AND COMMITMENT**

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## ABSTRACT

The present study seeks to extend the current body of literature regarding the effect of intimate partner violence (IPV) on a victim's commitment to a relationship. Drawing upon the Investment Model (Rusbult, 1980) and implicit relationship beliefs (Knee, 1998), the current study tested mediators and moderators between the frequency of physical and psychological abuse and victims' level of commitment in a community sample of battered women. Relationship satisfaction was hypothesized to mediate the relation between abuse and commitment. Implicit relationship beliefs, specifically destiny and growth beliefs, were hypothesized to moderate the relation between abuse and commitment. Correlations showed that commitment was negatively correlated with physical and psychological abuse. Relationship satisfaction was positively correlated with commitment and negatively correlated with physical and psychological abuse. Destiny and growth beliefs were not significantly correlated with each other or any of the other variables. Regression analyses showed that relationship satisfaction fully mediated the relation between abuse and commitment for both physical and psychological abuse. Multiple regression analyses revealed no significant moderating effect of destiny or growth belief. From a clinical perspective, these results suggest that perhaps making victims aware of the effect abuse has on their relationship satisfaction may be a beneficial first step in increasing their awareness of the pathological nature of abusive relationships.

## TABLE OF CONTENTS

Chapter	Page
2. INTRODUCTION	1
Abuse and Commitment	2
Mediator: Relationship Satisfaction	3
Moderator: Implicit Relationship Beliefs	7
Hypotheses	10
3. METHOD	11
Participants	11
Procedures	11
Measures	11
Revised Conflict Tactics Scale	11
Dyadic Adjustment Scale	12
Implicit Theories of Relationships Scale	13
Data Analytic Strategy	14
4. RESULTS	15
Demographics	15
Path Analyses	16
Correlations (Hypotheses 1 and 2)	19
Mediating Factor (Hypotheses 3 and 4)	19
Moderating Factors (Hypotheses 5a-5d)	22
5. DISCUSSION	24
Conclusion	28
6. REFERENCES	29

### **Introduction**

Intimate Partner Violence (IPV) against women is a global human rights issue, with approximately one in four women in the United States reporting IPV victimization during their lifetime (Breiding, Black, & Ryan, 2008). Furthermore, the majority of women leave their abusive relationship multiple times before the relationship is finally terminated (Okun, 1986; Kim & Gray, 2008). Although past research has focused on the influence IPV has on victims (e.g., Coker et al., 2002; Nixon, Resick, & Nishith, 2004), little research has examined victim characteristics that may help explain the continuing relationship between a victim and perpetrator. Previous researchers have sought to explain why many victims do not leave an abusive relationship, frequently citing external factors, such as economic and legal reasons (Anderson & Saunders, 2003; Barnett, 2000; Niolon, Rollins, Glass, Billhardt, Connor-Smith, & Baker, 2009). However, the role of relationship characteristics and victims' beliefs about relationships has received little attention in explaining why some women remain in abusive relationships.

It seems likely to assume that any type of conflict, including physical and psychological abuse, would result in a decrease in one's commitment to a relationship. However, there is little research (e.g., Le & Agnew, 2003), and certainly few theories, that predict the degree to which conflict, specifically physical and psychological abuse, will influence commitment. However, one such theory, known as the Investment Model (Rusbult, 1980a), predicts that conflict will cause a decrease in commitment. Furthermore, Rhatigan and Axsom (2006) believe that commitment is essential to predicting a victim's stay/leave decision. Thus, the current study explored the relation between abuse and commitment further. Building on previous research (e.g., Knee,

Patrick, Vietor, & Neighbors, 2004) the present study also explored possible mediators and moderators of this relation, including relationship satisfaction, and the beliefs victims hold about relationships, referred to as implicit relationship beliefs.

### **Abuse and Commitment**

The Investment Model defines commitment as a combination of one's attachment to a relationship and long-term orientation toward the future of his or her relationship. Research has shown that commitment is a significant predictor of relationship termination. For example, Le and Agnew (2003) conducted a meta-analysis of 52 studies of romantic relationships and showed that commitment significantly predicted stay/leave outcomes. Specific to intimate partner violent relationships, Rusbult and Martz (1995) found that commitment predicted IPV victim's stay/leave decisions up to one year later. However, commitment and relationship termination are distinct constructs. For example, a woman may stay in an abusive relationship despite having very low commitment to her partner due to concerns about safety or cultural beliefs. Conceptually, exploring commitment of battered women may help better explain the factors involved in relationship termination.

Although there is evidence for the relation between a victim's level of commitment and their stay/leave decision, there is less evidence that physical abuse is associated with a decrease in commitment. Rhatigan and Axsom (2006) found a moderate negative relation between physical abuse and commitment in a shelter-based sample. In contrast, Arias and Pape (1999) showed that frequency and severity of physical abuse did not predict battered women's intentions to return to their abusive partners.

In addition to physical abuse, it has also been hypothesized that psychological abuse influences commitment. Nearly all women who are victims of IPV experience psychological abuse (Follingstad, Rutledge, Berg, Hause, & Polek, 1990; Walker, 1984). After over a decade of research, there appears to be strong evidence that psychological abuse is associated with a decrease in commitment. For example, Rhatigan and Axson (2006) found that an increase in psychological abuse was associated with a decrease in commitment. Similarly, Arias and Pape (1999) found that psychological abuse, but not physical abuse, helped predict victims' stay/leave decisions.

Furthermore, there is research that offers reasons why psychological abuse may be more predictive of commitment than physical abuse. For example, Follingstad et al., (1990) found that 72% of women reported that psychological abuse impacts them more than physical abuse. Specifically, battered women indicate that they object, fear, and resent psychological abuse more than physical abuse. Other researchers hypothesize that psychological abuse may be more frequent and more internalized than physical abuse (Arias & Pape, 1999).

In light of the findings above, it appears that there is mixed evidence for the effect of physical abuse on commitment and more convincing evidence that psychological abuse influences commitment. However, the way in which these different types of abuse affect commitment is not well understood. Thus, the current study hypothesizes that the degree to which physical and psychological abuse will be associated with commitment will be mediated by relationship satisfaction and depend on victims' implicit relationship beliefs.

**Mediator: Relationship Satisfaction**



The Investment Model proposes that one's level of commitment in a relationship is dependent on three factors: relationship satisfaction, available alternatives, and one's investment in the relationship (Rusbult, 1980a). Furthermore, satisfaction is defined as a function of the rewards minus the costs of the relationship. According to the Investment Model, satisfaction is not the only variable that affects commitment. Available alternatives and investment size also play a role. Feelings of commitment are hypothesized to decrease as attractive and available alternatives increase. Rusbult (1980) defines investment size as the amount of resources that are tied up in a relationship. This can include things such as time, emotional energy, children, and money. Rusbult and Martz (1995) found that all three factors (relationship satisfaction, available alternatives, and investment) uniquely predicted battered women's commitment to their partners.

More recent research has also found that relationship satisfaction is a stronger predictor of commitment than available alternatives and investment size. Rhatigan and Axsom (2006) found that Investment Model variables accounted for 58% of the variance in battered women's commitment to their relationship. Rhatigan and Axsom found that relationship satisfaction significantly mediated the relation between psychological abuse and commitment, but mediation could not be tested for the other two Investment Model variables as key elements for establishing mediation were absent in each case. Thus, although all three Investment Model variables uniquely predict commitment, evidence that they play a mediating role between abuse and commitment only exists for relationship satisfaction.

In order to play a mediating role, relationship satisfaction must be associated with both abuse and commitment. An association between relationship satisfaction and

commitment is well-established in the literature (Le & Agnew, 2003). For example, a meta-analysis of more than 50 studies found a correlation of .68 between relationship satisfaction and commitment (Le & Agnew, 2003). Similarly, Rusbult (1980a) showed that commitment increased as relationship reward value (relationship satisfaction) increased. These findings have been replicated in non-romantic relationships as well, including friendships and mentoring relationships (Poteat, Shockley, & Allen, 2009; Rusbult, 1980b).

However, researchers have found mixed results for conflict's long-term effect on relationships satisfaction (e.g., Gottman & Krokoff, 1989; Karney & Bradbury, 1997). For example, Gottman and Krokoff (1989) observed couples and found that disagreement and exchanges of anger did not predict a decrease in relationship satisfaction, but were correlated with unhappiness and negative interactions in the home. Smith, Heaven, and Ciarrochi (2008) found that more satisfied couples were more likely to discuss relationship problems than less satisfied couples. Clearly, the patterns of resolving conflict are more important than the number of disagreements when predicting relationship satisfaction.

Studies investigating the effect of physical abuse on relationship satisfaction suggest that physical abuse is negatively correlated with relationship satisfaction, as the Investment Model would predict (Capaldi & Crosby, 1997; Follingstad, Rogers, & Duvall, 2012; Shortt, Capaldi, Kim, & Laurent, 2010). For example, in a study of young-adult men at risk for delinquency and their partners, IPV was associated with a decrease in satisfaction for women and as a couple (Shortt, et al., 2010). Rusbult and Martz (1995) state "...it seems clear that commitment should be lower to the extent that dissatisfaction

is more extreme...and commitment should also be lower when abuse is regarded as a fairly stable cost of involvement..." (p. 560). Other researchers agree that relationship satisfaction should decrease following abuse because abuse can be considered a huge cost to being in an abusive relationship (Kaura & Lohman, 2007). The current study theorizes that relationship satisfaction will play a mediating role because it is, by Rusbult's definition, a measure of the rewards and costs one experiences in a relationship. Assuming abuse is a major cost, the current study hypothesizes that as the frequency of abuse increases, the costs of being in the relationship increases (satisfaction decreases), and the long-term orientation of the individual, conceptualized as her level of commitment to the relationship, suffers drastically.

However, there is little evidence that relationship satisfaction actually mediates any relation between physical abuse and commitment. This is likely due to the fact that a relation between physical abuse and commitment is not well-established. As mentioned previously, there is evidence that relationship satisfaction plays a mediating role between psychological abuse and commitment (Rhatigan & Axsom, 2006). Thus, similar to the predictions of previous researchers, the current study hypothesizes that relationship satisfaction will mediate any association between physical abuse and commitment, and psychological abuse and commitment.

The majority of research examining the effect of conflict (largely non-violent conflict) on relationship satisfaction has been atheoretical in nature (see Bradbury, Fincham, & Beach, 2000 for review). In fact, Knee, Patrick, Veitor, and Neighbors (2004) argue that "theoretical approaches would afford a better understanding of the process of how, when, and why potentially negative variables (e.g., disagreement with

one's partner) tend to predict negative outcomes (e.g., dissatisfaction with the relationship)" (p. 617). The current study attempts to address this current limitation by providing a theoretical framework for understanding how implicit relationship beliefs might moderate an association between abuse and commitment.

### **Moderator: Implicit Relationship Beliefs**

In addition to exploring the mediating role of relationship satisfaction, the current study also investigated the role of relationship beliefs in moderating any relation between both physical and psychological abuse and commitment. In the past two decades, there has been an increase in attention paid to the role of cognition in relationship conflict (Fincham & Bradbury, 1988; Fincham & Bradbury, 1992). Research has shown us that individuals hold implicit theories about a number of human qualities and experiences (Beer, 2002; Levy, Stroessner, & Dweck, 1998). In the last decade, this area of research has been applied to the field of romantic relationships (Franiuk, Pomerantz, & Cohen, 2004; Knee, 1998). Statistically, as well as conceptually, two dominant implicit beliefs have emerged: destiny belief and growth belief (Knee, 1998; Knee, Nanayakkara, Vietor, Neighbors, & Patrick, 2001). Destiny belief refers to the extent to which individuals believe their relationships are "meant to be" or not and growth belief refers to the idea that relationships are strengthened by overcoming challenges (Knee, 1998).

Research has shown that both destiny belief and growth belief influence relationship behavior (Knee, 1998). For example, individuals high in growth belief report more time spent in a relationship with the same person and greater effort put into maintaining a relationship following conflict. In fact, growth belief can be thought of as a buffer against negative relationship events and conflict. Knee et al. (2004) found that

individuals high in growth belief showed higher commitment to their relationship following a problem discussion than individuals lower in growth belief.

Similarly, destiny belief has also been correlated with particular relationship patterns. Individuals high in destiny belief tend to have particularly long relationships when they believe their relationship is meant to be. However, these individuals also disengage more from a relationship when initial satisfaction is low. One might suspect that high destiny belief would be associated with a decrease in commitment following conflict, but there is evidence that high destiny belief may have a similar buffering effect as growth belief (Knee et al., 2004). Knee et al. (2004) found that the importance of resolving a problem interacted with one's perception of their partner, such that resolution was more important when one had a less positive perception of his or her partner. This interaction, however, was weaker in the presence of high destiny belief. Knee et al. (2004) took this as evidence of a possible buffering effect. However, this effect was not found in a similar study involving an event-contingent diary procedure (Knee et al., 2004).

With these previous findings in mind, the current study hypothesizes that the way in which abuse influences commitment will depend on the victim's evaluation of that abuse. For example, individuals that view abuse as an obstacle the relationship may grow from overcoming (high growth belief), may experience a smaller decrease in commitment compared to individuals who see no potential relationship benefit to working through abuse (low growth belief). Although previous research has not examined growth belief as a moderator between abuse and commitment, recent work has examined acceptability of violence as a possible moderator of abuse and relationship satisfaction. Kaura and

Lohman (2007) define acceptability of violence as one's attitudes, justifications, or tolerance for violence. The authors hypothesized that individuals experiencing physical abuse may have higher levels of relationship satisfaction if they are more accepting of the violence largely because these individuals likely view physical abuse as less deviant and negative than someone who is less accepting of violence. Their results supported this hypothesis for female victims only. Specifically, acceptability of violence moderated the relation between abuse and relationship satisfaction such that female victims who had a high acceptability of violence had higher relationship satisfaction than female victims who had a lower acceptability of violence. Acceptability of violence is not synonymous with growth belief, but both constructs involve the evaluation of abuse and growth belief may have a similar buffering effect as acceptability of violence.

Thus, the current study hypothesized that individuals low in growth belief will show a greater decrease in commitment in relation to abuse than individuals high in growth belief. To the author's knowledge, there is no previous research examining destiny and growth beliefs in victims of domestic abuse, however, Knee (1998) hypothesizes that "...if the relationship is characterized by emotional or physical abuse, or both (to use an extreme example), a growth theory may prevent the victim from abandoning the challenge of 'making him love me'" (p. 368). In addition, the current study hypothesized that individuals high in destiny belief will show a stronger negative correlation between abuse and commitment than individuals low in destiny belief.

Using measures of physical and psychological abuse, commitment, relationship satisfaction, and implicit relationship beliefs, the current study attempted to test several models.

**Hypotheses**

1. The frequency of physical abuse and female partners' commitment will have a negative correlation.
2. The frequency of psychological abuse and female partners' commitment will also have a negative association.
3. Any relation between physical abuse and commitment will be mediated by relationship satisfaction.
4. Any relation between psychological abuse and commitment will be mediated by relationship satisfaction.
5. Implicit relationship beliefs will moderate any association between abuse and commitment, such that:
  - 5a. Individuals high in destiny belief will show a stronger negative association between physical abuse and commitment compared to individuals low in destiny belief.
  - 5b. Individuals high in growth belief will show a weaker negative association between physical abuse and commitment compared to individuals low in growth belief.
  - 5c. Individuals high in destiny belief will show a stronger negative association between psychological abuse and commitment compared to individuals low in destiny belief.
  - 5d. Individuals high in growth belief will show a weaker negative association between psychological abuse and commitment compared to individuals low in growth belief.

## **Method**

### **Participants**

Participants were recruited through local newspaper advertisements and flyers requesting “couples needed.” Trained undergraduates administered a modified version of the Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) over the telephone to determine eligibility. In order to be included in the study, couples had to be at least 18 years of age, married or living together as if married for at least 6 months, heterosexual, and be fluent in English.

During an initial telephone interview, couples were classified as intimate partner violent (IPV) or nonviolent (NV) based on female partners’ responses regarding violence on the CTS2. Couples were classified as IPV if female partners reported at least two acts of violence perpetrated by their partner in the last year. A comparison group of couples was recruited who were low on relationship satisfaction and denied any male-to-female violence in the past 5 years and no serious violence ever in their relationship.

### **Procedures**

Data were collected as part of a larger study involving an initial assessment period, an anger induction task, a second assessment period, and a marital interaction task. After completing the study, participants were debriefed and paid \$90 to \$100 for their participation. For the purpose of this study, only data from assessment periods will be used.

### **Measures**

**The Revised Conflict Tactics Scale (CTS2).** The CTS2 (Straus et al., 1996) is a 78-item measure used to assess the rates of both physical and psychological aggression



by self and by partner. With each item in this measure, the participant rates his or her own behavior and his or her partner's. For example, this measure includes items such as "I slammed my partner against a wall" and "My partner did this to me." The measure contains five subscales: psychological aggression, physical assault, sexual coercion, injury, and negotiation. Only the psychological aggression and physical assault subscales were used in the current study. The CTS2 measures both lifetime and current behaviors, while also assessing the frequency of current behaviors. Participants answer the number of times a particular behavior has occurred in the past year (i.e., "once," "twice," "3-5 times," ect.) and participants can also answer "not in the past year, but it did happen before." Reliability ranges from .79 to .95 (Straus et al., 1996). In the current dataset, Cronbach's alphas were .79 and .66.

**Dyadic Adjustment Scale (DAS).** The DAS (Spanier, 1976) is a widely used self-report measure assessing general relationship quality and function. Participants rate the frequency of a number of relationship behaviors, as well as the level of agreement they experience regarding relationship issues. The DAS contains 32 items that cover four domains: satisfaction, cohesion, consensus, and expression of affection. Scores on the DAS can range from 0 to 151 and scores below 97 indicate relationship distress. This scale has shown strong content validity and reliability (Manne, Badr, Zaider, Nelson, & Kissane, 2010). Cronbach's alphas were .87, .87, .80, and .71.

Due to the fact that no specific measure of commitment was given in the current study, two items related to commitment on the DAS were used. These two items are originally part of the satisfaction scale. Thus, in order to test mediation, these two items were removed from the satisfaction scale score. See Table 1 for the specific items used

to measure commitment and relationship satisfaction. Cronbach’s alpha for the revised satisfaction scale was .87 and the alpha value for the two items used for commitment was .55.

Table 1

*Items used to Measure Relationship Satisfaction and Commitment*

Construct	Item
Relationship satisfaction	How often do you and your mate leave the house after a fight? In general, how often do you think that things between you and your partner are going well? Do you confide in your mate? Do you ever regret that you married (or live together)? How often do you and your partner quarrel? How often do you and your mate get on each other’s nerves? How often do you kiss your mate?
Commitment	How often do you discuss or have you considered divorce, separation, or terminating your relationship? Indicate which of the following best describes how you feel about the future of your relationship by circling the corresponding number in the right hand column. Please select only one response. <ul style="list-style-type: none"> <li>• I want desperately for my relationship to succeed and would go to about any length to see that it does.</li> <li>• I want very much for my relationship to succeed and will do all I can to see that it does.</li> <li>• I want very much for my relationship to succeed and will do my fair share to see that it does.</li> <li>• It would be nice if my relationship succeeded, but I can’t do much more than I am doing now to help it succeed.</li> <li>• It would be nice if my relationship succeeded, but I refuse to do any more than I am doing now to keep the relationship going.</li> <li>• My relationship can never succeed and there is no more that I can do to keep the relationship going</li> </ul>

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Note. All items were originally on the relationship satisfaction subscale of the DAS.

**Implicit Theories of Relationships Scale (ITR).** The ITR (Knee et al., 2003) is a 22-item measure of implicit relationship beliefs, with individuals rating the degree to which they endorse each item on a 7-point Likert scale. Exactly half of the items

measure destiny belief and include items such as “potential relationship partners are either destined to get along or they are not.” The other 11 items measure growth belief and include items such as “problems in a relationship can bring partners closer together.” Previous research suggests no significant correlation between items measuring destiny and items measuring growth. Internal reliabilities for this scale have ranged from .82 to .85 and .73 to .80 for destiny and growth beliefs, respectively. Previous use of the scale also suggests that the beliefs are not significantly correlated with gender (Knee et al., 2001; Knee et al., 2004). Cronbach’s alphas were .84 and .80.

### **Data Analytic Strategy**

The current study used a combination of correlation, hierarchical multiple regression, and structural equation modeling to test its hypotheses. In order to test the models as a whole, structural equation modeling was used to perform a path analysis on the models presented in Figures 1-4. The direct and indirect relations between frequency of physical and psychological abuse, commitment, relationship satisfaction, and implicit relationship beliefs were explored. Analysis of Moment Structures (AMOS), a module within Statistical Package for the Social Sciences (SPSS), was used. All variables were treated as manifest variables. In order to test that physical abuse was negatively correlated with commitment (Hypothesis 1), a Pearson’s correlation was performed. Similarly, to test that psychological abuse is negatively associated with commitment (Hypothesis 2), correlation was used.

Regression was used to determine if relationship satisfaction mediated the relation between abuse and commitment. Specifically, physical abuse’s ability to predict commitment was measured after relationship satisfaction had also been added to the

regression model. It was hypothesized that physical abuse's ability to predict commitment will decrease when relationship satisfaction is added, providing evidence that relationship satisfaction is a mediator (Hypothesis 3). A similar process was used to test if relationship satisfaction mediated the relation between psychological abuse and commitment (Hypothesis 4).

In addition, implicit relationship beliefs are expected to act as moderators of the relation between abuse and commitment (Hypotheses 5a-5d). All variables were standardized and then four hierarchical multiple regression analyses were performed. In order to test moderators, interaction terms were created, Destiny Belief X Physical Abuse (Hypothesis 5a), Growth Belief X Physical Abuse (Hypothesis 5b), Destiny Belief X Psychological Abuse (Hypothesis 5c), and Growth Belief X Psychological Abuse (Hypothesis 5d). Next, a regression analysis was performed by entering the type of abuse and the implicit relationship belief, then the interaction term to predict commitment. This procedure was used to test all four hypothesized moderating relations. Destiny belief was hypothesized to moderate the relation between abuse and commitment, such that those high in destiny belief will show a stronger negative correlation between abuse and commitment than those low in destiny belief (Hypotheses 5a and 5c). Similarly, it was hypothesized that those high in growth belief will show a weaker negative correlation between abuse and commitment than those low in growth belief (Hypotheses 5b and 5d).

## **Results**

### **Demographics**

The final sample consisted of 202 female participants. The participants' average age was 28.9 ( $SD = 8.8$ ). Of those participants that reported income, median gross

family income was approximately \$30,000 ( $SD = \$29,080$ ). Approximately 20% of the participants had their GED or had graduated high school, 45% had earned an associate's or vocational degree, and 8% were college graduates. Approximately 35% of the sample were African American, 19% were Hispanic, 32% were Caucasian, 3% were Asian, and 6% were from other racial or ethnic origins.

### **Path Analyses**

Structural equation modeling was used to test the models presented in Figures 1-4. Model 1, with physical abuse predicting commitment and moderated by destiny belief, was not significant overall (CFI = 0.192, RMSEA = 0.16). Model 2, with growth belief acting as the moderator, was also not significant (CFI = 0.20, RMSEA = <0.01). For psychological abuse as the predictor, the path analysis for Model 3 was not significant (CFI = 0.179, RMSEA = 0.239). Finally, Model 4, in which growth belief acted as a moderator between psychological abuse and commitment, was also not significant (CFI = 0.194, RMSEA = 0.118). Follow-up analyses were run to test the individual paths of each model.

Figure 1

*Physical Abuse and Commitment with Relationship Satisfaction and Destiny Belief*

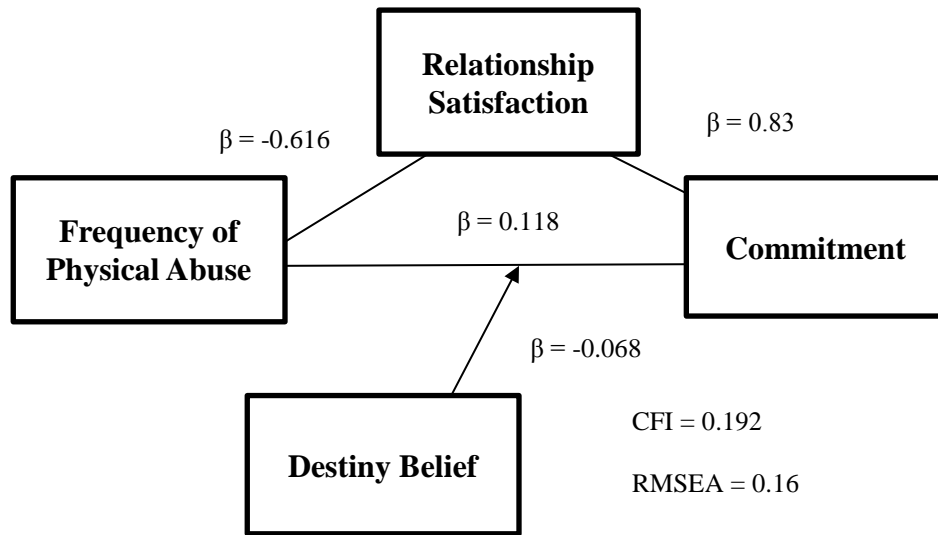


Figure 2

*Physical Abuse and Commitment with Relationship Satisfaction and Growth Belief*

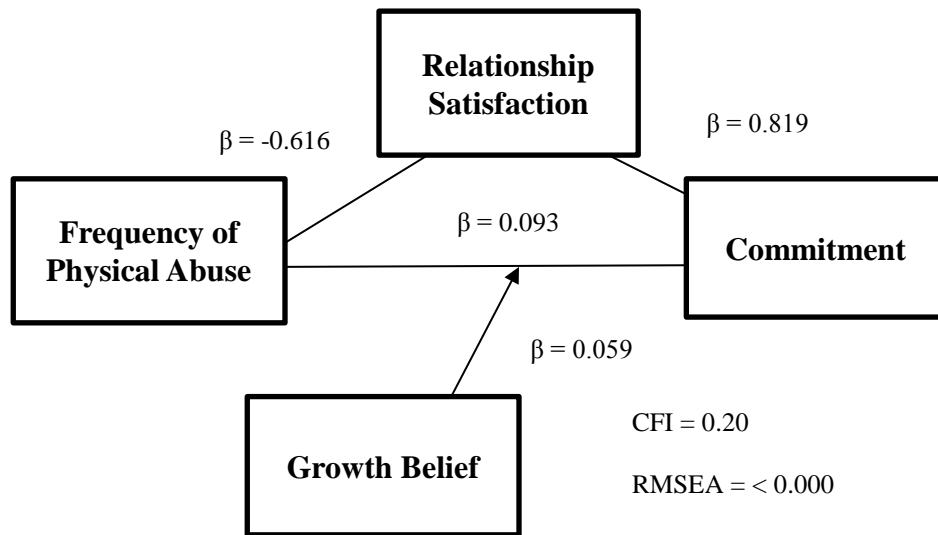


Figure 3

*Psychological Abuse and Commitment with Relationship Satisfaction and Destiny Belief*

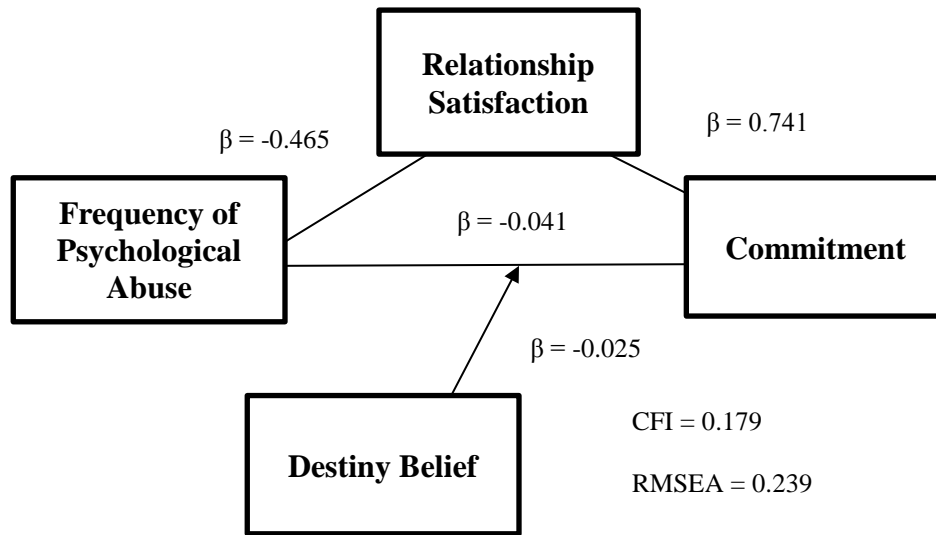
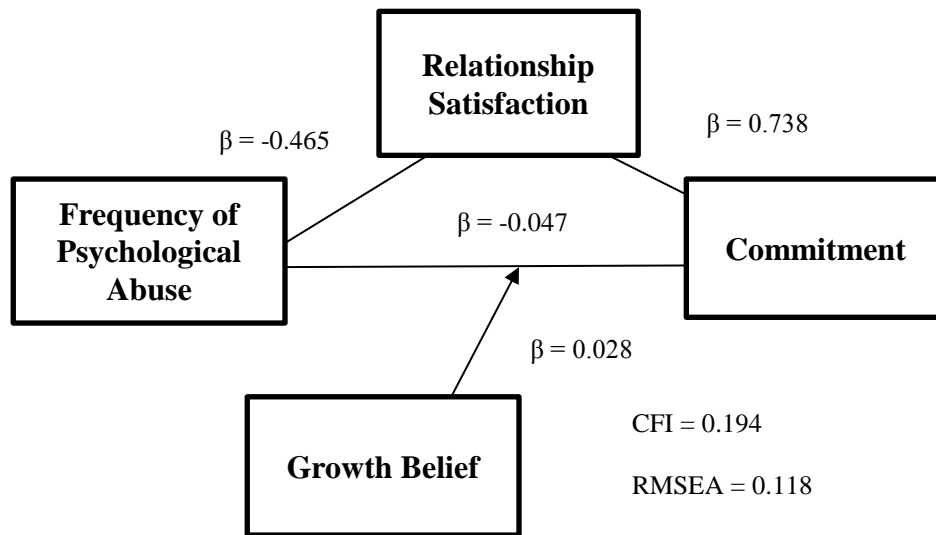


Figure 4

*Psychological Abuse and Commitment with Relationship Satisfaction and Growth Belief*



**Correlations (Hypotheses 1 and 2)**

Pearson correlations between variables were examined across the entire sample and are presented in Table 2. Physical and psychological abuse had a strong positive correlation,  $r = 0.519, p < 0.001$ . In support of Hypotheses 1 and 2, was commitment was negatively correlated with both physical ( $r = 0.408, p < 0.001$ ) and psychological abuse,  $r = 0.403, p < 0.001$ . Commitment and relationship satisfaction were strongly, positively correlated,  $r = 0.76, p < 0.001$ . However, destiny and growth belief were not significantly correlated with each other, or any of the other variables.

Table 2

*Correlations Among Independent and Dependent Variables and Possible Mediator and Moderator Variables*

Variable	Psychological abuse	Commitment	Relationship satisfaction	Destiny belief	Growth belief
Physical abuse	.519**	-.408**	-.619**	.114	.091
Psychological abuse	---	-.403**	-.477**	.125	-.076
Commitment		---	.760**	-.113	.063
Relationship satisfaction			---	-.093	-.002
Destiny belief				---	.008
Growth belief					---

Note. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$

**Mediating Factor (Hypotheses 3 and 4)**

In order to test Hypotheses 3 and 4, steps for establishing mediation were followed (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). As seen in Table 2, physical abuse was negatively correlated with commitment. In addition, physical abuse



was also negatively correlated with relationship satisfaction. Third, there was a significant positive correlation between relationship satisfaction and commitment. With all three requirements of mediation established, a multiple regression analysis with physical abuse and relationship satisfaction predicting commitment was conducted. In a simple regression analysis, physical abuse was found to predict commitment ( $\beta = -0.413$ ,  $p < 0.001$ ). However, when relationship satisfaction was entered in the regression equation, it significantly predicted commitment ( $\beta = 0.818$ ,  $p < 0.001$ ) and physical abuse no longer did ( $\beta = 0.094$ ,  $p = 0.129$ ), see Table 3. Thus, Hypothesis 3 was supported, such that relationship satisfaction fully mediated the relation between physical abuse and commitment.

Table 3

*Two Multiple Regressions Examining Mediators the Relation between Abuse and Commitment*

	<i>Unstandardized B</i>	<i>SE B</i>	<i>Standardized Beta</i>
Model 1			
Physical abuse	- 0.025	0.004	-0.413***
Model 2			
Physical abuse	0.006	0.004	0.094
Relationship satisfaction	0.230	0.017	0.818***
Model 1			
Psychological abuse	-0.047	0.008	-0.403***
Model 2			
Psychological abuse	-0.006	0.006	-0.052
Relationship satisfaction	0.206	0.015	0.735***

Note. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$

In testing Hypothesis 4, the same process was followed. As seen in Table 2, psychological abuse was negatively correlated with commitment. Second, psychological abuse was found to be negatively correlated with relationship satisfaction. Again, relationship satisfaction and commitment were positively correlated. With all necessary correlations established, a multiple regression analysis with psychological abuse and relationship satisfaction predicting commitment was conducted. The simple regression equation revealed that psychological abuse predicted commitment ( $\beta = -0.403, p < 0.001$ ). However, while psychological abuse significantly predicted commitment in the

simple regression, it was no longer a significant predictor ( $\beta = -0.052, p = 0.343$ ) when relationship satisfaction was added ( $\beta = 0.735, p < 0.001$ ). Therefore, Hypothesis 4 was also supported. Specifically, relationship satisfaction fully mediated the relation between psychological abuse and commitment.

### **Moderating Factors (Hypotheses 5a-5d)**

Multiple regression analyses were used to test destiny and growth beliefs as possible moderators of the relation between abuse and commitment. In testing each belief as a moderator of either physical or psychological abuse and commitment, an interaction term of the type of abuse (physical or psychological) and implicit relationship belief (destiny or growth) was created after standardizing both variables. Next, a regression analysis was performed by entering the type of abuse and the implicit relationship belief, then the interaction term to predict commitment. This procedure was used to test all four hypothesized moderating relations.

**Hypothesis 5a: Destiny belief as a moderator of the relation between physical abuse and commitment.** Destiny belief was predicted to moderate the relation between physical abuse and commitment. Specifically, conditions of high destiny belief were hypothesized to predict lower commitment than conditions of low destiny belief. The preliminary correlations indicate that destiny belief was not significantly correlated with either physical abuse or commitment, see Table 2. The multiple regression found that there was not a significant interaction between physical abuse and destiny belief in predicting commitment ( $\beta = -0.049, p = 0.481$ ), see Table 4. Therefore, the hypothesis that destiny belief would function as a moderator between physical abuse and commitment was not supported.

Table 4

*Four Multiple Regressions Examining Moderators*

	<i>Unstandardized B</i>	<i>SE B</i>	<i>Standardized Beta</i>
Physical abuse	-0.834	0.134	-0.432***
Destiny belief	-0.119	0.128	-0.063
Physical abuse X Destiny belief	-0.087	0.123	-0.049
Physical abuse	-0.866	0.125	-0.461***
Growth belief	0.224	0.125	0.120
Physical abuse X Growth belief	0.236	0.124	0.127
Psychological abuse	-0.747	0.135	-0.407***
Destiny belief	-0.118	0.131	-0.062
Psychological abuse X Destiny	-0.010	0.163	-0.004
Psychological abuse	-0.707	0.125	-0.393***
Growth belief	0.086	0.128	0.046
Psychological abuse X Growth	0.255	0.166	0.107

Note. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$

**Hypothesis 5b: Growth belief as a moderator of the relation between physical abuse and commitment.** Growth belief was proposed to moderate the relation between physical abuse and commitment. As seen in Table 2, growth belief was not significantly correlated with either physical abuse or commitment. The multiple regression found that there was not a significant interaction between physical abuse and growth belief in

predicting commitment ( $\beta = 0.127, p = 0.059$ ), see Table 4. Thus, hypothesis 5b was not supported.

**Hypothesis 5c: Destiny belief as a moderator of the relation between psychological abuse and commitment.** Destiny belief was hypothesized to moderate the relation between psychological abuse and commitment. Destiny belief was not correlated with psychological abuse or commitment, see Table 2. A multiple regression analysis found that there was not a significant interaction between psychological abuse and destiny belief in predicting commitment ( $\beta = -0.004, p = 0.953$ ), see Table 4. Therefore, the hypothesis that destiny belief would moderate the association between psychological abuse and commitment was not supported.

**Hypothesis 5d: Growth belief as a moderator of the relation between psychological abuse and commitment.** Finally, growth belief was predicted to function as a moderator between psychological abuse and commitment. Specifically, conditions of high growth belief were expected to result in greater commitment than conditions of low growth belief. However, growth belief was not significantly correlated with psychological abuse or commitment. The multiple regression found that there was not a significant interaction between psychological abuse and growth belief in predicting commitment ( $\beta = 0.107, p = 0.126$ ), see Table 4. Thus, hypothesis 5d was not supported.

### **Discussion**

In this study, the author hypothesized several models of commitment in a sample of female victims of physical and psychological abuse. As hypothesized, both physical and psychological abuse were associated negatively with commitment. Furthermore, relationship satisfaction mediated both of these associations. However, the current study

also proposed that the relation between abuse and commitment would be moderated by implicit relationship beliefs, destiny belief and growth belief. No evidence of a possible moderating effect of either of these beliefs was found for either physical abuse and commitment or psychological abuse and commitment. .

The present study replicated recent findings that relationship satisfaction mediates the relation between psychological abuse and commitment (e.g., Rhatigan & Axsom, 2006). Unlike previous findings, however, the current study also found evidence that relationship satisfaction mediates a negative association between physical abuse and commitment. This provides support for the Investment Model in that factors that alter relationship satisfaction can have an indirect effect on commitment.

Although Knee et al. (2004) found that implicit relationship beliefs moderate the relation between conflict and commitment, there are a few reasons why a similar effect was not found for abuse and commitment. First, conflict and abuse are distinct constructs and it is possible that implicit relationship beliefs have no effect when physical or psychological abuse is involved. However, it is also possible that the design of the current study prevented the author from finding any evidence of moderation. In their design, Knee et al. (2004) measured commitment soon after conflict occurred. In Study 1, participants completed an abbreviated measure of conflict following disagreements they experienced with their partners over a 10-day period. In Study 2, participants' commitment was measured immediately following two conflict discussions. It is possible that implicit relationship beliefs only moderate relatively immediate changes in commitment following conflict, as opposed to long-term, overall commitment, as measured in the present study. If the present study had assessed commitment before and

quickly after a specific incidence of physical or psychological abuse, it is possible that implicit relationship beliefs may have moderated any change in commitment. There are many ethical issues involved in simulating abuse in a laboratory setting; however, a diary procedure, similar to that used in Knee et al.'s (2004) first study, could prove to be a useful, and an ultimately more effective way, to test implicit relationship beliefs as moderators of abuse and commitment.

There are several limitations to the present study. First, the measurements used in the present study are not ideal, particularly those used to assess commitment. Using only two items to measure the dependent variable weakens the validity and reliability of the present findings. In the future, it would be more helpful to include a measure specifically related to commitment. Due to the construct overlap between relationship satisfaction and commitment, choosing a measure that distinguishes between the two constructs is imperative in research of this nature. Because the present study attempted to test the Investment Model, it would have been advantageous to use the Investment Model Scale (Rusbult, Martz, & Agnew, 2005) to measure these constructs. In addition to alleviating some of the methodological problems in the present study, use of this scale would have allowed the other investment model variables (available alternatives and investment size) to be tested as additional possible mediators.

However, there is considerable overlap in the items used to assess satisfaction on the Investment Model Scale and those used in the current study. For example, both measures include items assessing one's satisfaction with the frequency of kissing and other forms of romantic affection, one's general assessment of his or her relationship, and the extent to which one's partner is a source of emotional intimacy (e.g., confiding

personal secrets). In comparing the scales, however, differences also emerge. The Investment Model Scale's items assess only relationship rewards, with low values illustrating a lack of reward, while the items used in the current assess both the rewards and costs one may experience (e.g., "How often do you and your partner quarrel?").

In addition, the data analytic procedures used are not able to determine the exact effect of relationship satisfaction. Although the regression analyses reflect a case of full mediation, it is possible that construct and measurement overlap between relationship satisfaction and commitment are causing this result. This is especially possible due to the fact that relationship satisfaction had a strong positive correlation to commitment, showing almost a 2:1 ratio between the mediator's correlation with commitment and its correlation with frequency of psychological abuse, in one case.

A third limitation of the present study is its sole reliance on self-report data. Integration of behavioral and physiological data may have provided useful information about other factors that mediate and moderate the relation between abuse and commitment. However, the models tested in the current study make no predictions regarding behavioral or physiological factors. Furthermore, use of both the female and male partners' reports of physical and psychological abuse may have minimized bias in reporting the frequency of abusive acts.

Finally, another limitation of the present study is the lack of outcome data regarding stay/leave decisions. We have no measures of actual separation or divorce, as this was a cross-sectional study. Although commitment and relationship termination are related, information about stay/leave decisions would be useful. However, the author believes that an emphasis on commitment, as opposed to actual stay/leave decisions, is



still informative, especially as many see commitment as the key to understanding victims' stay/leave decisions (Rhatigan & Axsom, 1996). However, future longitudinal research could include outcome data on relationship termination.

### **Conclusion**

The present study seeks to address a glaring gap in the literature concerning relationship dynamics in abusive relationships. Much of the research on IPV focuses on victims' experiences after ending an abusive relationship, but little attention has been given to victims' experiences with their partners and their perceptions of their current relationships. The current study attempted to shed light on these relationship dynamics by combining several theories that have already been applied to non-abusive relationships. In line with previous researchers, the present study hypothesized that in many ways "battered women consider the same issues in deciding whether to terminate relationships as nonbattered women do" (Rhatigan & Axsom, 2006, p. 160). From a clinical perspective, research in this area may help clinicians understand more deeply the experiences of victims and why they may struggle to make stay/leave decisions. Addressing the complicated relation between abuse and commitment as a way of explaining why terminating an abusive relationship is difficult may help increase a victim's self-awareness and serve as an important tool for intervention.

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