

WHAT IS RELATIONSHIP SATISFACTION? EXAMINING RELATIONSHIP
SATISFACTION AMONG MARRIED INDIVIDUALS USING CONFIRMATORY FACTOR
ANALYSIS

by

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Marital satisfaction has been linked to numerous, important individual and couple outcomes including physical health, mental health, treatment of both physical and mental health disorders, work productivity, divorce rates, and general life satisfaction. To date, however, the research on marital satisfaction continues to employ a variety of conceptualizations and measurement techniques for this construct that make comparison across studies an often difficult task. Two of the most prominent theories regarding marital satisfaction have classified marital satisfaction as either a reflection of interpersonal processes and adjustment between spouses or as a reflection of subjective, intrapersonal feelings about one's marriage. The first research question addressed in this study, therefore, was to examine whether this conceptual division is reflected in the structure of marital satisfaction through the use of Confirmatory Factor Analyses (CFA). Additionally, marital satisfaction has often been shown to be highly related to, or predicted by, many other relational constructs including communication, commitment, quality time or couple bondedness, dominance, satisficing, and positive orientation towards the relationship. The second research question addressed in this study, therefore, was whether and how a number of common relational constructs fit into the structure of marital satisfaction as a

construct. Data came from a statewide survey of Texan residents, the Texas Healthy Marriage Initiative Baseline Survey Project and included 1,528 married, heterosexual respondents. Results indicated that a bi-factor model with a single general construct of marital satisfaction was the best-fitting model for the data, indicating that shared variance across all items was best reflected as a distinct marital satisfaction construct. Within this model, associations among other relational constructs were smaller or reduced to non-significance in comparison to other models. Marital satisfaction, therefore, can be best conceptualized as an underlying common factor that accounts for some of the high overlap between relational constructs. Implications for clinicians working with married couples and directions for future research in this area are discussed.

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Master of Science in Marriage and Family Therapy

by

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CHAPTER ONE: INTRODUCTION

Marital and, more generally, relationship satisfaction have been linked to numerous individual and couple outcomes including physical health, mental health, treatment of both physical and mental health disorders, work productivity, divorce rates, and general life satisfaction (for a review, see Proulx, Helms & Buehler, 2007 and Fincham & Beach, 2010). The strong predictive relationship between relationship satisfaction and these important life outcomes has made it a popular area of study over the last several decades. This vast quantity of research spans many areas of interest including gender differences in satisfaction, how relationship satisfaction impacts other areas of life such as parenting and child outcomes, how contextual and environmental influences impact relationship satisfaction, trajectories of marital satisfaction, how to measure relationship satisfaction, and the many potential predictors of relationship satisfaction (Bradbury, Fincham, & Beach, 2000; Fincham & Beach, 2010). This study will focus on the structure of marital satisfaction as a construct and attempt to address conceptualization and measurement issues currently existing in the literature.

Need for the Study

Measurement debate. Despite the vast quantity of research, there has been no consensus in the literature on how marital satisfaction should be measured (Fincham & Beach, 2010). Several measures have been created to try to capture the essence of this construct including the Dyadic Adjustment Scale (DAS; Spanier, 1976), the Marital Adjustment Test (MAT; Locke & Wallace, 1959), the Quality of Marriage Index (QMI; Norton, 1983), the Relationship Assessment Scale (RAS; Hendrick, 1988), and the Kansas Marital Satisfaction Scale (KMS; Schumm, Nichols, Schectman, & Grinsby, 1983). More recently, researchers have advocated for the use of a two-dimensional approach to measuring relationship satisfaction that examines both

positive and negative dimensions of marital quality rather than a solely positive focus (Fincham & Beach, 2010). Mattson, Paldino, and Johnson (2007) showed that a negative dimension to relationship satisfaction predicted spouse's affect above and beyond a positive dimension, as well as a unidimensional measure of satisfaction. Additionally, the two-dimensional structure was found to provide meaningful treatment outcome implications over and above unidimensional measures of relationship satisfaction (Rogge, Funk, Lee, & Saavedra, 2009). The Couple's Satisfaction Index (Funk & Rogge, 2007) and the Positive and Negative Semantic Differential (Mattson, Rogge, Johnson, Davidson, & Fincham, 2013) are examples of two-dimensional measurement tools. There is no clear consensus in the literature on which measure is preferred, and, often, whichever measure is used in a study is more a reflection of the researcher's conceptualization of marital satisfaction rather than of empirical research or theory (Mattson et al., 2013).

Theoretical ambiguity. The lack of consensus regarding measurement stems from continued debate over how relationship satisfaction is defined and how it differs from or is the same as other closely related constructs such as dedication commitment (Stanley & Markman, 1992), positive and negative attitudes towards the relationship (e.g., Mattson et al., 2013), and intimacy (e.g., Cordova, Gee, & Warren, 2005; Rauer, Karney, Garvan, & Hou, 2008).

Depending on the research study, these constructs may be combined as a representation of marital satisfaction (e.g., Rauer et al., 2008), examined individually (e.g., Greeff & Malherbe, 2001), or used to predict the other constructs (e.g., Cordova et al., 2005; Givertz, Segrin, & Hanzal, 2009). To date, however, no study has examined the structure of this widely known and broadly defined relationship satisfaction construct in a way that allows for comparisons and contrasts to other similar constructs. Clarifying the constituents of this construct will enable

future researchers to measure it more comprehensively rather than fragmentary and aid clinicians in their understanding and implementation of treatment targeted at increasing satisfaction within relationships.

Purpose of the Study

The current study is a secondary data analysis study drawing on data from the Texas Healthy Marriage Initiative Baseline Survey Project (Harris, 2008) that will examine the structure of marital satisfaction by testing potential models indicated by theory and prior research on this construct. Specifically, the research questions that will be addressed are: 1) what is the best fitting structural representation of marital satisfaction, and 2) what is the nature of the relationship between marital satisfaction and other relational constructs? Hypotheses corresponding to each of these questions include:

H1: marital satisfaction will be best represented as two factors: an adjustment factor consisting of items from the Dominance, Negative Communication, Positive Orientation and Couple Bondedness constructs and an individual feelings factor consisting of items from the Dedication Commitment, Constraint Commitment, Satisficing, and Satisfaction constructs.

H2: a bi-factor model of marital satisfaction, in which marital satisfaction is represented by the two factors adjustment and individual feelings, will fit best, indicating that an underlying shared variance related to either adjustment or individual feelings is present within each relational construct. This underlying shared variance, in turn, helps to explain the strong relationships found between these constructs and marital satisfaction.

The structural foundation of the construct marital satisfaction will be examined by testing five theoretical models via confirmatory factor analysis (CFA). The relational constructs that will

be included in this study include Dominance, Constraint Commitment, Dedication Commitment, Couple Bondedness, Negative Communication, Positive Orientation, Satisficing, and Relationship Satisfaction. Each construct will be measured by a set of questions assessing participants' perception of each of these constructs in their marriage.

Conclusion

The subsequent chapters will present a review of the literature on marital satisfaction and its relationship to the aforementioned relational constructs (Chapter 2), as well as the methodology (Chapter 3) and results (Chapter 4) from the current study on the structural nature of marital satisfaction. Following these chapters will be a discussion (Chapter 5) of the implications of these results on the future study and use of the marital satisfaction construct in research. This chapter will also include recommendations for how the findings of this study could be applied in clinical work with couples.

REFERENCES

- Bradbury, T. N., Fincham, F. D., & Beach, S. R. H. (2000). Research on the nature and determinants of marital satisfaction: A decade in review. *Journal of Marriage and the Family*, *62*, 964–980.
- Cordova, J. V., Gee, C. B., & Warren, L. Z. (2005). Emotional skillfulness in marriage: Intimacy as a mediator of the relationship between emotional skillfulness and marital satisfaction. *Journal of Social and Clinical Psychology*, *24*, 218–235. doi:10.1521/jscp.24.2.218.62270
- Fincham, F. D., & Beach, S. R. H. (2010). Marriage in the new millennium: A decade in review. *Journal of Marriage and Family*, *72*, 630–649. doi:10.1111/j.1741-3737.2010.00722.x
- Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology*, *21*, 572–583. doi:10.1037/0893-3200.21.4.572
- Givertz, M., Segrin, C., & Hanzal, A. (2009). The association between satisfaction and commitment differs across marital couple types. *Communication Research*, *36*, 561–584. doi:10.1177/0093650209333035
- Greeff, A. P., & Malherbe, H. L. (2001). Intimacy and marital satisfaction in spouses. *Journal of Sex & Marital Therapy*, *27*, 247–257. doi:10.1080/009262301750257100
- Harris, S.M., Glenn, N.D, Rappleyea, D.L., Diaz-Loving, R., Hawkins, A.J., Daire, A. P., Osborne, C., & Huston, T.L. (2008). Together in Texas: Baseline report on marriage in the lone star state. Austin, TX: Health and Human Services Commission.
- Hendrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family*, *50*, 93–98. doi:10.2307/352430

- Locke, H. J., & Wallace, K. M. (1959). Short marital-adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living, 21*, 251–255.
- Mattson, R. E., Paldino, D., & Johnson, M. D. (2007). The increased construct validity and clinical utility of assessing relationship quality using separate positive and negative dimensions. *Psychological Assessment, 19*, 146.
- Mattson, R. E., Rogge, R. D., Johnson, M. D., Davidson, E. K. B., & Fincham, F. D. (2013). The positive and negative semantic dimensions of relationship satisfaction. *Personal Relationships, 20*, 328–355. doi:10.1111/j.1475-6811.2012.01412.x
- Norton, R. (1983). Measuring marital quality: A critical look at the dependent variable. *Journal of Marriage and the Family, 45*, 141–151.
- Proulx, C. M., Helms, H. M., & Buehler, C. (2007). Marital quality and personal well-being: A meta-analysis. *Journal of Marriage and Family, 69*, 576–593.
- Rauer, A. J., Karney, B. R., Garvan, C. W., & Hou, W. (2008). Relationship risks in context: A cumulative risk approach to understanding relationship satisfaction. *Journal of Marriage and Family, 70*, 1122–1135. doi:10.1111/j.1741-3737.2008.00554.x
- Rogge, R. D., Funk, J. L., Lee, S., & Saavedra, M. C. (2009). How well can we detect naturally occurring shifts in relationship satisfaction over time? Evaluating responsiveness to change in relationship satisfaction scales. *Unpublished manuscript*.
- Schumm, W. R., Nichols, C. W., Schectman, K. L., & Grigsby, C. C. (1983). Characteristics of responses to the Kansas Marital Satisfaction Scale by a sample of 84 married mothers. *Psychological Reports, 53*, 567–572.
- Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family, 38*, 15–28.

Stanley, S. M., & Markman, H. J. (1992). Assessing commitment in personal relationships.
Journal of Marriage and the Family, 54, 595-608.

CHAPTER TWO: LITERATURE REVIEW

Research supporting the importance of marital and relationship satisfaction for individual well-being continues to grow (Fincham & Beach, 2010) and has shown marital satisfaction in heterosexual couples to be a strong predictor of overall life satisfaction in both genders and an important factor in physical, mental, and occupational health (Proulx et al., 2007). For instance, marital satisfaction was found to be comparable to illness severity in predicting illness survival rates in patients with congestive heart failure. Relatedly, increases in marital discord or conflict have been linked to increased risk for developing an alcohol use disorder, a higher likelihood of developing mood, anxiety, or substance use disorder, and more difficulty with maintaining positive effects of marital therapy following termination (Fals-Stewart, O'Farrell, & Hooley, 2001). Despite more evidence acknowledging the importance of marital satisfaction to our lives, measurement and theoretical discrepancies have prevented adoption of a more unified view of this construct. The remainder of this literature review will examine in more depth the current difficulties concerning: 1) theoretical models of marital satisfaction, 2) how measures of marital and relationship satisfaction depart from, rather than reflect, these theoretical conceptualizations, and 3) relationships between marital satisfaction and other important relational constructs.

Models of Relationship Satisfaction

Marital satisfaction has been extensively studied in the literature and has been shown to be a pertinent correlate in numerous areas of research including: psychological factors, sociodemographic trends, parenting, physical health, and psychopathology (Bradbury, Fincham, & Beach, 2000). Although this factor has been used in many research areas, there are many discrepancies in the way scholars conceptualize marital or relationship satisfaction. Throughout the first several decades of research, marital satisfaction was believed to assume a U-shaped

trajectory. This U-shaped pattern of marital satisfaction was one of the most reliable findings in social sciences (Glenn, 1990). In this view, satisfaction in marriage tends to be high in the initial stages of marriage, drop precipitously during the middle stages, then increase in the later stages (Anderson et al., 1983; Gagnon, Hersen, Kabacoff, & Van Hasselt, 1999; Glenn, 1990; Orbuch, House, Mero, & Webster, 1996). Despite the predominance of this pattern in the research, few theories have adequately explained why this trend occurs. Researchers have attributed this trend to the entrance and departure of children from the home (Belsky, Spanier, & Rovine, 1983; Kurdek, 1998; Rhyne, 1981); individual changes leading to incompatibility (Pineo, 1961); and the courtship “high” that decreases following marriage (Johnson, Amoloza, & Booth, 1992). There is significant support for the theory that children’s entrance to the family is associated with a decline in marital satisfaction (Belsky et al., 1983; Houseknecht, 1979; Kurdek, 1998; Leonard & Roberts, 1998; McLanahan & Adams, 1989; Menaghan, 1983; Nock, 1979; Renne, 1970; VanLaningham, Johnson, & Amato, 2001). Unfortunately, children cannot fully account for the decline in satisfaction as the decline often happens prior to the entrance of children and happens in couples that have no kids (Belsky et al., 1983; Lindahl, Clements & Markman, 1998; McHale & Huston, 1985; White & Booth, 1985).

The lack of convincing evidence for any of the above explanations for the U-shaped trajectory prompted some researchers to continue exploring whether this trend was only an artifact of cross-sectional data. Researchers examining longitudinal data doubted whether this curvilinear trend was due to real changes in satisfaction or if there were other factors that account for the pattern (Bradbury et al., 2000; Glenn, 1998; VanLaningham et al., 2001). Glenn (1998) showed in his analysis of the American General Social Surveys data that, when examined cross sectionally by years since first marriage, marital satisfaction took on the U-shaped pattern

familiar to previous research. However, when individual longitudinal data was analyzed within each cohort, the U-shaped pattern dissolved into inter-cohort differences. Glenn argued that marital satisfaction does not actually increase following the middle stages of marriage; rather, the decline from the initial to middle stages slows down after this intermediate period and becomes statistically insignificant in the later stages. VanLaningham et al. (2001) produced similar results in their longitudinal analysis of the Marital Instability over the Life Course study, a 5-wave, 17-year long study of married couples. They found that marital happiness significantly declines in the early years following marriage and then either continues to decline, though at a slower rate, or levels off in the later years of marriage after a long period of decline. Both of these studies give support to the notion that marital satisfaction, as conceptualized by marital happiness, declines precipitously over the first 10 years of marriage and either levels off or continues to decline rather than increases in the later years of marriage as originally found in cross-sectional data analyses.

As noted above, both of these studies conceptualized marital satisfaction as marital happiness, for example, “Taking things all together, how would you describe your marriage? Would you say that your marriage is very happy, pretty happy, or not too happy?” (Glenn, 1998; VanLaningham et al., 2001). Glenn noted that this way of measuring marital satisfaction is in line with the “individual feelings school” method of conceptualizing marital satisfaction as opposed to the “marital adjustment school” method. The “individual feelings school” method proposed that marital satisfaction is best measured by the way participants feel about their marriage whereas the “marital adjustment school” method proposed that marital satisfaction is a characteristic of the spousal relationship and is best captured by examining communication, conflict and similar relational qualities. Studies subscribing to the “marital adjustment school”

may report different findings on the trajectory of marriage over the life span (Glenn, 1998). Over a decade later, Fincham and Rogge (2010) continued to support the idea that marital scholars tend to approach marital satisfaction from either the intrapersonal perspective or from the relationship processes perspective. Like the “individual feelings school,” the intrapersonal perspective relies on individual’s subjective evaluation of his or her marriage, while the relationship process perspective, like the “marital adjustment school,” relies on patterns of interaction such as conflict, communication, and companionship. How marital satisfaction is measured, therefore, is a large factor in research findings on what may predict satisfaction and what the trends in marital satisfaction may be. Unfortunately, no consensus has been reached on how to conceptualize or measure this important construct.

Conceptualization and Measurement of Relationship Satisfaction

Despite distinct theoretical orientations propounded by Glenn (1998) and Fincham and Rogge (2010), the most popular measures of marital satisfaction over the past several decades, Locke and Wallace’s (1959) Marital Adjustment Test (MAT) and Spanier’s (1976) Dyadic Adjustment Scale (DAS), do not reflect these theoretical nuances (Bradbury et al., 2000; Fincham & Rogge, 2010; Funk & Rogge, 2007). Rather, these scales contain items that ask participants to subjectively evaluate marital quality (intrapersonal), as well as report on specific behaviors and interaction patterns (relationship process). This may result in inflated correlations between marital satisfaction as measured by these scales and other self-report measures of interpersonal process. Thus, the study of true correlates of marital satisfaction has been confounded by an overwhelming similarity in item content and shared variance (Bradbury et al., 2000; Fincham & Rogge, 2010).

One attempt to reduce this inflation has focused on re-conceptualizing the construct of relationship satisfaction. As Bradbury et al. (2000) described in their decade review on marital research, researchers have begun to view marital satisfaction as a multi-dimensional construct rather than a unidimensional construct as represented by the MAT and DAS (Locke & Wallace, 1959; Spanier, 1976). This multidimensional view of marital satisfaction is founded on that idea that a satisfying relationship is not just one that is void of distress, rather, relationship satisfaction is best accounted for by considering both the negative and positive attributes of marriage. Fincham and Linfield (1997) found that, although related, each dimension of satisfaction had different correlates and accounted for unique variance in several marital behaviors and attributions. Additionally, two groups of wives who scored the same on the MAT, either from scoring high on both positivity and negativity or low on both positivity and negativity, had significantly different scores on behavior and attribution measures. More recently, Mattson et al. (2007) used Fincham and Linfield's (1997) two-dimensional measure of marital satisfaction and found similar results indicating the unique correlates for each dimension. Specifically, negativity predicted men's observed negative affect and women's observed positive affect when variance accounted for by positivity was held constant. This research demonstrates the value of including distinct dimensions of positivity and negativity when evaluating marital satisfaction (Fincham & Linfield, 1997; Mattson et al., 2007).

Fincham and Beach (2010) noted in their decade review of marital studies that this trend of testing traditional conceptualizations of marital satisfaction continued into the next decade. Many of these researchers challenged the use of traditional unidimensional scales and turned towards determining more precise ways to measure relationship satisfaction through Item Response Theory (IRT) analyses (Fincham & Rogge, 2010; Funk & Rogge, 2007). IRT analyses

allow researchers to look at individual item characteristics including difficulty and precision of measurement on the identified latent construct. Using these methods, Funk and Rogge (2007) developed the Couple Satisfaction Index (CSI) from a pool of items gathered from eight popular relationship satisfaction questionnaires including the MAT and DAS. Using data from 5,315 participants, Funk and Rogge found that most of the questionnaires used in the item pool contained a high degree of measurement noise and those with more items generally failed to offer more information than much shorter scales. They then selected the most effective items for assessing marital satisfaction and created three scales: the 32-item CSI, 16-item CSI, and 4-item CSI. When compared to the MAT and DAS, both the 32-item and 16-item CSI proved to be more precise and sensitive to differences between participants.

Using this work as their base, Rogge and Fincham (2010) asked participants to consider only the positive (or negative) qualities in their relationship while ignoring the negative (or positive) qualities prior to evaluating the relationship on a set of 20 positive (or 20 negative) characteristics. Through exploratory factor analyses and IRT, they selected the 4 best items for measuring positivity and also negativity. These two scales were able to explain more variance in positive interactions, negative interactions, satisfaction with sacrifice, vengefulness toward partner, hostile conflict behavior, and disagreement tolerance when compared to a 4-item global measure of relationship satisfaction. Like previous researchers who promoted a multi-dimensional view of marital satisfaction, Rogge and Fincham supported the use of separate positive and negative rating scales as each contributes unique information above and beyond traditional unidimensional scales.

Correlates of Relationship Satisfaction

Analyzing relationship satisfaction as a two-dimensional construct may be helpful in reducing much of the noise in measurement found by Rogge and Fincham (2010); however, there may still be significant overlap between this reconceptualization of relationship satisfaction and other relationship processes. This could result in inflated correlations on one or both dimensions of relationship satisfaction. The remainder of this section will examine several prominent interpersonal process constructs and their relationship to marital satisfaction.

Dominance and aggression. Much of the research on dominance and aggression in relationships often assumes a negative relationship between these and marital satisfaction (Bradbury et al., 2000). Additionally, most researchers, like those just mentioned, have tended to exclusively focus on physical aggression and may be missing valuable information about the beginning and progression of partner aggression gained by studying psychological aggression (White, Smith, Koss, & Figueredo, 2000). For instance, Frye and Karney (2006) showed that psychological aggression was often a precursor to physical aggression. Recently, researchers have attempted to examine the impact of aggression, including physical, psychological, and relational, on a number of relational factors including relationship satisfaction. Physical aggression has been shown to be negatively correlated with relationship satisfaction; however, women were more impacted in their experience of satisfaction than men (Frye & Karney, 2006; Katz, Kuffel, & Coblenz, 2002). Men in Katz et al.'s study actually reported no association between physical aggression and satisfaction in their relationship. Part of this lack of association in men may be related to a higher frequency of relational aggression experienced by men when compared to the frequency of physical aggression they experience. In their study of relational aggression, which was defined as any negative behavior targeted at the relationship and may

include verbal or non-verbal forms, Linder, Crick, and Collins (2002) found that men reported equal rates of both relational aggression and relational victimization. Additionally, Linder et al. found that both of these experiences were negatively associated with positive relationship qualities such as trust and proximity seeking and positively associated with negative relationship qualities such as frustration, ambivalence, jealousy, and anxiety clinging. Researchers concluded that aggression is an important element when looking at relationship satisfaction and may have differential effects on men and women depending on the type of aggression measured (Frye & Karney, 2006; Katz, Kuffel, & Coblentz, 2002; Linder, Crick, & Collins, 2002).

Commitment. Broadly defined as the intention or desire to maintain one's intimate partnership (Adams & Jones, 1997; Rusbult, 1980, 1983; Rusbult, Martz, & Agnew, 1998; Stanley & Markman, 1992), relationship commitment has been found to be an integral piece of relationship dynamics. Indeed, there is compelling support in the literature for a strong positive relationship between commitment and relationship satisfaction (Fletcher, Simpson, & Thomas, 2000). Much of this literature, however, has focused solely on personal or dedication commitment and has ignored commitment based on constraints to leaving the relationship. To further this distinction, Stanley and Markman (1992), building off Rusbult's (1980, 1983) investment model of commitment, defined two types of commitment: 1) dedication commitment – willingness to remain in the relationship and 2) constraint commitment – external constraints to leaving the relationship. Despite these conceptualizations, when asked about their commitment to their relationship, average people will respond in terms of dedication commitment (Stanley & Markman, 1992). As such, there has been significantly more research in the area of dedication commitment. Within the small set of research that looks at constraint commitment, mixed results have been found regarding the relationship between it and satisfaction. Some of these mixed

findings may be a result of measurement noise in how constraint commitment has been conceptualized. Rhoades, Stanley, and Markman (2010) argue that constraint commitment is not a unidimensional construct; rather, it represents several aspects of constraints on relationships. They looked at three aspects of constraint commitment including felt constraint (feeling trapped in the relationship), material constraint (owning property, having a pet, shared finances), and perceived constraint (perceived difficulties of leaving the relationship including social concerns and time/effort it would require). Using the 4-item DAS as a measure of relationship adjustment, Rhoades et al. found that only “felt constraint” was related to poorer adjustment scores. “Material constraint” showed no relationship with adjustment, while “perceived constraint” was associated with better adjustment. One other study that has separated constraint commitment into similar categories also found that “felt constraint” or feeling trapped is negatively related to relationship satisfaction (Kelmer, Rhoades, Stanley, & Markman, 2013). Although data is mixed, the most recent research on constraints in relationships indicated that, while some aspects of constraint commitment may increase relationship satisfaction, constraints that take on a negative connotation such as feeling trapped or stuck in relationship may be detrimental to relationship satisfaction.

Dedication commitment, or personal commitment, on the other hand, has strong empirical support for a link between it and improved relationship satisfaction. Couples who are high in dedication commitment tend to report more satisfaction with the relationship (Arriaga, 2001; Schoebi, Karney, & Bradhury, 2012; Stanley, Whitton, Sadberry, Clements, & Markman, 2006; Wieselquist, Rusbult, Foster, & Agnew, 1999) and are more likely to engage in behaviors that promote relationship quality (Rusbult et al., 1998; Schoebi et al., 2012; Whitton, Stanley, & Markman, 2007; Wieselquist et al., 1999). On the other hand, those who avoid commitment in

relationships are more prone to relationship failure (Birnie, McClure, Lydon, & Holmberg, 2009). Highly committed couples may also have a rosier perspective on their relationship. Those with higher commitment levels tend to place less importance on the negative aspects of their relationships when evaluating their overall satisfaction with the relationship (Neff & Karney, 2003). In general, these findings indicate a strong positive association between dedication commitment and relationship outcomes in the long-term.

Schoebi et al. (2012) have taken dedication commitment one step further by breaking it down into two subcategories: 1) one's inclination to engage in maintenance behaviors and, 2) desire for the relationship to persist long-term. By doing this, they hoped to parse out the overlap in previous literature between commitment and relationship satisfaction, predicting that relationship satisfaction would overlap considerably more with one's desire for the relationship to continue than with one's inclination to perform relationship maintenance behaviors. They found that one's inclination to engage in maintenance behaviors such as making sacrifices, raising difficult issues, apologizing, and inquiring about the partner's feelings was a strong predictor of positive relationship outcomes above and beyond relationship satisfaction. One's desire for the relationship to persist, however, was reduced to non-significance once relationship satisfaction was taken into account. Thus, not only is it important to consider how these two types of commitment, dedication and constraint, might impact outcomes differently, but studies must also distinguish between sub-constructs of both constraint and dedication commitment in order to gain a better understanding of the mechanisms of commitment on relationship outcomes.

Couple bondedness and quality time. As relationships have increasingly emphasized the importance of emotional intimacy and finding one's soul mate with whom one can share deep, intimate feelings (Whitehead & Popenoe, 2007), spouses are under increased pressure to

continually maintain this level of deep connection (Cancian & Gordon, 1988). Sharing time together as a couple has been shown to be one method of facilitating this emotional maintenance as it promotes emotional closeness (Hill, 1988; Kingston & Nock, 1987). As such, it is not surprising that several researchers found partners who share their leisure time together have better relationship satisfaction (Crawford, Houts, Huston, & George, 2002; Miller, 1976; Orthner & Mancini, 1990; Zuo, 1992). Quality time shared by couples has also been found to be a strong predictor of relationship satisfaction (Dew, 2007; Kingston & Nock, 1987). Although actual time spent was a predictor of relationship satisfaction, Dew (2007) found that spousal perceptions of time spent together, regardless of actual time spent, were better predictors of relationship satisfaction. As with aggression, however, women seemed to be most impacted by variations in quality time (Nock & Wilcox, 2006). For women, quality time their husbands devoted to the relationship was significantly positively related to their reports of marital quality (Nock & Wilcox, 2006). Couple's perception of their time spent together, as well as gendered differences in this perception, therefore, are important considerations when examining the construct of marital satisfaction.

Positive and negative attitudes. As noted previously, there is significant support in the literature for a conceptualization of marital satisfaction as a multidimensional construct consisting of positivity and negativity towards the relationship (Fincham & Linfield, 1997; Fincham & Rogge, 2010; Mattson et al., 2007; Mattson et al., 2013). Positive attitudes typically include ratings of whether one's relationship is interesting, sturdy, enjoyable, friendly, and hopeful. Negative attitudes toward the relationship have been captured by ratings of whether one's relationship is bad, lonely, boring, empty, and miserable (Mattson et al., 2013). Both dimensions have been found to strongly relate to unidimensional measures of relationship

satisfaction (Fincham & Linfield, 1997; Mattson et al., 2007; Mattson et al., 2013) and have shown to be predictive above and beyond a unidimensional scale (Fincham & Rogge, 2010; Mattson et al., 2007; Mattson et al., 2013). When taken together, positive and negative affect towards a relationship have been found to predict changes in marital satisfaction (Johnson et al., 2005). If this conceptualization is accurate, then positive and negative attitudes towards the relationship may be better considered constituents of, rather than correlates of, relationship satisfaction.

Satisficing. Satisficing is a method of decision-making in which people, based on their own threshold of acceptability, make a choice that is “good enough” for them regardless of other options that may or not be available to them. When satisficing is successful, in that the decision meets or exceeds the acceptability threshold for the decision-maker, that person often feels content and happy with his or her choice (Schwartz et al., 2002). Maximizing, on the other hand, represents a decision-making style in which people try to get the most out of any situation and strive to make the best choice possible at all times (Schwartz et al., 2002; Simon, 1978). Maximizers, therefore, tend to spend more time making decisions, consider more options, make comparisons to their social network, and, once a decision is made, tend to be less satisfied and experience more regret than satisficers (Iyengar, Wells, & Schwartz; 2006; Love, 2009; Schwartz et al., 2002).

Although originally studied in the economic literature, more researchers have begun applying these concepts in other disciplines, namely psychology, and examining them in important decision-making realms such as dating and mate selection (Franiuk, Cohen, & Pomerantz, 2002; Love, 2009; Riddle, 2006; Schwartz et al., 2002). Overall, maximizing is related to more negative psychological outcomes than satisficing. Research has demonstrated

that maximizing is associated with increased depression, regret, pessimism, perfectionism, agreeableness, and conscientiousness and decreased optimism, happiness, life satisfaction, neuroticism, and self-esteem (Love, 2009; Riddle, 2006; Schwartz et al., 2002). Additionally, maximizers are more likely to ruminate over negative things when compared to satisficers (White, Lehman, & Schwartz, 2002). Given these negative relationships to many psychological outcomes, one would expect maximizing to have more detrimental effects on relationships than satisficing. The research in this area, however, is much more limited and mixed. Riddle (2006) in her study of 97 undergraduate psychology students found no relationship between maximizing and any relationship outcomes including satisfaction. Another study that sampled 2,000 residents over a much larger age range (18-95) did find significant associations between these constructs and relationship outcomes (Love, 2009). Love showed that satisficing was related to higher relationship satisfaction and better relationship outcomes such as being more likely to marry at all and less likely to divorce when compared to maximizers. Given the larger, more diverse sample in Love's (2009) study, it seems more likely that there is, in fact, some association between satisficing/maximizing and satisfaction in relationships. Due to the paucity of research in this area, however, the exact nature of this association is yet to be determined.

Summary

This chapter has reviewed the literature pertaining to the conceptualization, measurement, and correlates of marital satisfaction. Two competing theoretical models of marital satisfaction, adjustment and individual feelings, currently drive the conceptualization of marital satisfaction (Glenn, 1998). How researchers measure marital satisfaction as well as the relationships they find between marital satisfaction and other relational constructs often depends on the theoretical model to which he/she subscribes (Mattson et al., 2013). This has led to inconsistency and some

confusion in the literature on marital satisfaction, specifically in how this construct is defined and named. Names for this construct include relationship quality, marital adjustment, marital satisfaction, and marital happiness. The multitude of conceptualizations creates problems when attempting to compare results across studies. Additionally, measurement may range from a single item assessing how satisfied one is in the relationship to a comprehensive list of items assessing various areas of agreement on interpersonal processes. There is a distinct lack in the literature of a gold standard or any consensus on how this construct is best measured (Fincham & Beach, 2010). In addition to ambiguity in the operationalization of marital satisfaction, differences in measurement also obscure the interpretation of the relationship between marital satisfaction and other relational constructs. Although most research has found a link between some definition of marital satisfaction and the relational constructs listed above, dominance (Frye & Karney, 2006; Katz, Kuffel, & Coblenz, 2002; Linder, Crick, & Collins, 2002), constraint commitment (Kelmer, Rhoades, Stanley, & Markman, 2013; Rhoades, Stanley, & Markman, 2010), dedication commitment (Schoebi, Karney, & Bradbury, 2012; Stanley, Whitton, Sadberry, Clements, & Markman, 2006; Wieselquist, Rusbult, Foster, & Agnew, 1999), couple bondedness (Crawford, Houts, Huston, & George, 2002; Miller, 1976; Orthner & Mancini, 1990; Nock & Wilcox, 2006; Zuo, 1992), positive orientation and negative communication (Fincham & Rogge, 2010; Mattson et al., 2007; Mattson et al., 2013), and satisficing (Love, 2009), there continues to be mixed findings often related to which definition of marital satisfaction is used.

Conclusion

This study aims to look more in depth at this construct, as well as each of the previously named constructs, in regard to their roles in marital satisfaction. Given the lack of clarity regarding the theoretical conceptualization of marital satisfaction and the inconsistent method

with which it is measured, there is a clear need for a better understanding of the structure of this construct. As illustrated in this chapter, numerous relational constructs have been shown to be strongly related to marital outcomes including satisfaction. In order to determine the nature of these relationships, i.e. whether some constructs might be better thought of as pieces of a larger marital satisfaction construct or separate from marital satisfaction, this study will examine multiple theoretical models of marital satisfaction through Confirmatory Factor Analyses using the aforementioned relational constructs as a foundation for each model.

REFERENCES

- Adams, J. M., & Jones, W. H. (1997). The conceptualization of marital commitment: An integrative analysis. *Journal of Personality and Social Psychology, 72*, 1177-1196.
- Anderson, S. A., Russell, C. S., & Schumm, W. R. (1983). Perceived marital quality and family life-cycle categories: A further analysis. *Journal of Marriage and the Family, 45*, 127–139.
- Arriaga, X. B. (2001). The ups and downs of dating: Fluctuations in satisfaction in newly formed romantic relationships. *Journal of Personality and Social Psychology, 80*, 754–765.
doi:10.1037/0022-3514.80.5.754
- Belsky, J., Spanier, G. B., & Rovine, M. (1983). Stability and change in marriage across the transition to parenthood. *Journal of Marriage and the Family, 45*, 567–577.
- Birnie, C., McClure, M. J., Lydon, J. E., & Holmberg, D. (2009). Attachment avoidance and commitment aversion: A script for relationship failure. *Personal Relationships, 16*, 79–97. doi:10.1111/j.1475-6811.2009.01211.x
- Bradbury, T. N., Fincham, F. D., & Beach, S. R. H. (2000). Research on the nature and determinants of marital satisfaction: A decade in review. *Journal of Marriage and the Family, 62*, 964–980.
- Cancian, F. M., & Gordon, S. L. (1988). Changing emotion norms in marriage: Love and anger in U.S. women's magazines since 1900. *Gender and Society, 2*, 308 – 42.
- Crawford, D. W., Houts, R. M., Huston, T. L., & George, L. J. (2002). Compatibility, leisure, and satisfaction in marital relationships. *Journal of Marriage and Family, 64*, 433–449.
- Dew, J. P. (2007). *Do you have the time? Changes in and implications of spouses' time together* (Order No. 3266098). Available from ProQuest Dissertations & Theses Global.

(304820238). Retrieved from

<http://search.proquest.com.jproxy.lib.ecu.edu/docview/304820238?accountid=10639>

- Fals-Stewart, W., O'Farrell, T. J., & Hooley, J. M. (2001). Relapse among married or cohabiting substance-abusing patients: The role of perceived criticism. *Behavior Therapy, 32*, 787–801.
- Fincham, F. D., & Beach, S. R. H. (2010). Marriage in the new millennium: A decade in review. *Journal of Marriage and Family, 72*, 630–649. doi:10.1111/j.1741-3737.2010.00722.x
- Fincham, F. D., & Linfield, K. J. (1997). A new look at marital quality: Can spouses feel positive and negative about their marriages? *Journal of Family Psychology, 11*, 489-502.
- Fincham, F. D., & Rogge, R. (2010). Understanding relationship quality: Theoretical challenges and new tools for assessment. *Journal of Family Theory & Review, 2*, 227–242. doi:10.1111/j.1756-2589.2010.00059.x
- Fletcher, G. J. O., Simpson, J. A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin, 26*, 340–354. doi:10.1177/0146167200265007
- Franiuk, R., Cohen, D., & Pomerantz, E. M. (2002). Implicit theories of relationships: Implications for relationship satisfaction and longevity. *Personal Relationships, 9*, 345–367. doi:10.1111/1475-6811.09401
- Frye, N. E., & Karney, B. R. (2006). The context of aggressive behavior in marriage: A longitudinal study of newlyweds. *Journal of Family Psychology, 20*, 12-20.
- Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology, 21*, 572–583. doi:10.1037/0893-3200.21.4.572

- Gagnon, M. D., Hersen, M., Kabacoff, R. I., & Van Hasselt, V. B. (1999). Interpersonal and psychological correlates of marital dissatisfaction in late life: a review. *Clinical Psychology Review, 19*, 359–378.
- Glenn, N. D. (1990). Quantitative research on marital quality in the 1980s: A critical review. *Journal of Marriage and the Family, 52*, 818–831.
- Glenn, N. D. (1998). The course of marital success and failure in five American 10-year marriage cohorts. *Journal of Marriage and the Family, 60*, 569–576.
- Hill, M. S. (1988). Marital stability and spouses' shared time a multidisciplinary hypothesis. *Journal of Family Issues, 9*, 427–451.
- Houseknecht, S. K. (1979). Childlessness and marital adjustment. *Journal of Marriage and the Family, 41*, 259–265.
- Iyengar, S. S., Wells, R. E., & Schwartz, B. (2006). Doing better but feeling worse looking for the “best” job undermines satisfaction. *Psychological Science, 17*, 143–150.
- Johnson, D. R., Amoloza, T. O., & Booth, A. (1992). Stability and developmental change in marital quality: A three-wave panel analysis. *Journal of Marriage and the Family, 54*, 582–594.
- Johnson, M. D., Cohan, C. L., Davila, J., Lawrence, E., Rogge, R. D., Karney, B. R., ... Bradbury, T. N. (2005). Problem-solving skills and affective expressions as predictors of change in marital satisfaction. *Journal of Consulting and Clinical Psychology, 73*, 15-27.
- Katz, J., Kuffel, S. W., & Coblenz, A. (2002). Are there gender differences in sustaining dating violence? An examination of frequency, severity, and relationship satisfaction. *Journal of Family Violence, 17*, 247–271. doi:10.1023/A:1016005312091

- Kelmer, G., Rhoades, G. K., Stanley, S., & Markman, H. J. (2013). Relationship quality, commitment, and stability in long-distance relationships. *Family Process, 52*, 257–270. doi:10.1111/j.1545-5300.2012.01418.x
- Kingston, P. W., & Nock, S. L. (1987). Time together among dual-earner couples. *American Sociological Review, 52*, 391–400.
- Kurdek, L. A. (1998). The nature and predictors of the trajectory of change in marital quality over the first 4 years of marriage for first-married husbands and wives. *Journal of Family Psychology, 12*, 494-510.
- Leonard, K. E., & Roberts, L. J. (1998). Marital aggression, quality, and stability in the first year of marriage: Findings from the Buffalo Newlywed Study. In T. N. Bradbury & R. L. Weiss (Eds.), *The Developmental Course of Marital Dysfunction* (pp. 44–73). Cambridge University Press.
- Lindahl, K., Clements, M., & Markman, H. (1998). The development of marriage: A 9-year perspective. In *The developmental course of marital dysfunction* (pp. 205–236). New York, NY, US: Cambridge University Press.
- Linder, J. R., Crick, N. R., & Collins, W. A. (2002). Relational aggression and victimization in young adults' romantic relationships: Associations with perceptions of parent, peer, and romantic relationship quality. *Social Development, 11*, 69–86. doi:10.1111/1467-9507.00187
- Locke, H. J., & Wallace, K. M. (1959). Short marital-adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living, 21*, 251–255.

- Love, R. W. B. (2009). *Maximizing and relationships*. University of Texas. Retrieved from <http://repositories.lib.utexas.edu/bitstream/handle/2152/ETD-UT-2009-05-171/LOVE-MASTERS-REPORT.pdf?sequence=1>
- Mattson, R. E., Paldino, D., & Johnson, M. D. (2007). The increased construct validity and clinical utility of assessing relationship quality using separate positive and negative dimensions. *Psychological Assessment, 19*, 146-151.
- Mattson, R. E., Rogge, R. D., Johnson, M. D., Davidson, E. K. B., & Fincham, F. D. (2013). The positive and negative semantic dimensions of relationship satisfaction. *Personal Relationships, 20*, 328–355. doi:10.1111/j.1475-6811.2012.01412.x
- McHale, S. M., & Huston, T. L. (1985). The effect of the transition to parenthood on the marriage relationship a longitudinal study. *Journal of Family Issues, 6*, 409–433.
- McLanahan, S., & Adams, J. (1989). The effects of children on adults' psychological well-being: 1957–1976. *Social Forces, 68*, 124–146.
- Menaghan, E. G. (1983). Individual coping efforts and family studies: Conceptual and methodological issues. *Marriage & Family Review, 6*, 113–135.
- Miller, B. C. (1976). A multivariate developmental model of marital satisfaction. *Journal of Marriage and the Family, 38*, 643-657.
- Neff, L. A., & Karney, B. R. (2003). The dynamic structure of relationship perceptions: Differential importance as a strategy of relationship maintenance. *Personality and Social Psychology Bulletin, 29*, 1433–1446. doi:10.1177/0146167203256376
- Nock, S. L. (1979). The family life cycle: Empirical or conceptual tool? *Journal of Marriage and the Family, 41*, 15–26.

- Nock, S. L., & Wilcox, W. B. (2006). What's love got to do with it? Equality, equity, commitment and women's marital quality. *Social Forces*, *84*, 1321–1345.
doi:10.1353/sof.2006.0076
- Orbuch, T. L., House, J. S., Mero, R. P., & Webster, P. S. (1996). Marital quality over the life course. *Social Psychology Quarterly*, *59*, 162–171.
- Orthner, D. K., & Mancini, J. A. (1990). Leisure impacts on family interaction and cohesion. *Journal of Leisure Research*, *22*, 125-137.
- Pineo, P. C. (1961). Disenchantment in the later years of marriage. *Marriage and Family Living*, *23*, 3–11.
- Proulx, C. M., Helms, H. M., & Buehler, C. (2007). Marital quality and personal well-being: A meta-analysis. *Journal of Marriage and Family*, *69*, 576–593.
- Renne, K. S. (1970). Correlates of dissatisfaction in marriage. *Journal of Marriage and the Family*, *32*, 54–67.
- Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2010). Should I stay or should I go? Predicting dating relationship stability from four aspects of commitment. *Journal of Family Psychology*, *24*, 543–550. doi:10.1037/a0021008
- Rhyme, D. (1981). Bases of marital satisfaction among men and women. *Journal of Marriage and the Family*, *43*, 941–955.
- Riddle, T. L. (2006). *The relationship between maximizing, perfectionism, and relationship satisfaction*. Retrieved from
<http://thekeep.eiu.edu/cgi/viewcontent.cgi?article=1903&context=theses>

- Rogge, R. D., & Fincham, F. D. (2010). *Disentangling positive and negative feelings toward relationships: Development and validation of the Positive-Negative Relationship Quality (PNRQ) scale*. Unpublished manuscript, University of Rochester, Rochester, NY.
- Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the investment model. *Journal of Experimental Social Psychology, 16*, 172–186.
- Rusbult, C. E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. *Journal of Personality and Social Psychology, 45*, 101-117.
- Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The investment model scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships, 5*, 357–387.
- Schoebi, D., Karney, B. R., & Bradhury, T. N. (2012). Stability and change in the first 10 years of marriage: Does commitment confer benefits beyond the effects of satisfaction? *Journal of Personality & Social Psychology, 102*, 729–742. doi:10.1037/a0026290
- Schwartz, B., Ward, A., Monterosso, J., Lyubomirsky, S., White, K., & Lehman, D. R. (2002). Maximizing versus satisficing: happiness is a matter of choice. *Journal of Personality and Social Psychology, 83*, 1178-1197.
- Simon, H. A. (1978). Rationality as process and as product of thought. *The American Economic Review, 68*, 1–16.
- Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family, 38*, 15–28.
- Stanley, S. M., Whitton, S. W., Sadberry, S. L., Clements, M. L., & Markman, H. J. (2006). Sacrifice as a predictor of marital outcomes. *Family Process, 45*, 289–303.

- VanLaningham, J., Johnson, D. R., & Amato, P. (2001). Marital happiness, marital duration, and the u-shaped curve: Evidence from a five-wave panel study. *Social Forces*, *79*, 1313–1341.
- White, J. W., Smith, P. H., Koss, M. P., & Figueredo, A. J. (2000). Intimate partner aggression—what have we learned? Comment on Archer (2000). *Psychological Bulletin*, *126*, 690–696.
- White, K., Lehman, D. R., & Schwartz, B. (2002). [Rumination tendencies among maximizers and satisficers]. Unpublished raw data.
- White, L. K., & Booth, A. (1985). The quality and stability of remarriages: The role of stepchildren. *American Sociological Review*, *50*, 689–698.
- Whitehead, B. D., & Popenoe, D. (2001). The state of our unions 2001: Who wants to marry a soul mate? Piscataway, NJ: National Marriage Project. Retrieved December 16, 2014, from <http://www.stateofourunions.org/pdfs/SOOU2001.pdf>
- Whitton, S. W., Stanley, S. M., & Markman, H. J. (2007). If I help my partner, will it hurt me? Perceptions of sacrifice in romantic relationships. *Journal of Social and Clinical Psychology*, *26*, 64–91.
- Wieselquist, J., Rusbult, C. E., Foster, C. A., & Agnew, C. R. (1999). Commitment, pro-relationship behavior, and trust in close relationships. *Journal of Personality and Social Psychology*, *77*, 942–966. doi:10.1037/0022-3514.77.5.942
- Zuo, J. (1992). The reciprocal relationship between marital interaction and marital happiness: A three-wave study. *Journal of Marriage and the Family*, *54*, 870–878.

CHAPTER THREE: METHODOLOGY

There are multiple theories as to how relationship satisfaction should be conceptualized and measured ranging from unidimensional theories and measures to various two dimensional theories (Fincham & Linfield, 1997; Fincham & Rogge, 2010; Funk & Rogge, 2007; Glenn, 1998; Mattson, Paldino, & Johnson, 2007). There has been relatively little consensus among researchers as to how this construct is measured, which has resulted in researchers independently choosing items and measures that are more likely a reflection of the researcher's own conceptualization of marital satisfaction than of empirical or theoretical foundations (Mattson et al., 2013). This study aims to shed more light in this area by examining the theoretical variations, specifically the conceptualizations of marital satisfaction as either adjustment or individual feelings, of this broad concept through Confirmatory Factor Analysis (CFA). The research questions that were addressed in this study were: 1) what is the best fitting structural representation of marital satisfaction, and 2) what is the nature of the relationship between marital satisfaction and other relational constructs? Specific hypotheses were:

H1: marital satisfaction will be best represented as two factors: an adjustment factor consisting of items from the Dominance, Negative Communication, Positive Orientation and Couple Bondedness constructs and an individual feelings factor consisting of items from the Dedication Commitment, Constraint Commitment, Satisficing, and Satisfaction constructs.

H2: a bi-factor model of marital satisfaction, in which marital satisfaction is represented by the two factors adjustment and individual feelings, will fit best, indicating that an underlying shared variance related to either adjustment or individual feelings is present within each relational construct.

Sample

Data for this study will come from the Texas Healthy Marriage Initiative Baseline Survey Project, a representative, statewide survey of adults 18 years of age and older (Harris et al., 2008). Data were collected in 2007 by the Office of Survey Research at the University of Texas in Austin. The survey assessed attitudes on a variety of topics including partner attributes, marriage, and divorce as well as participants' own relationship and marital history and current satisfaction. Information on the participants and data collection methods of this project have been published elsewhere (see Harris et al., 2008); however, certain key aspects of the sample and sampling procedure are reiterated here. A random digit dialing sampling design was employed in which the household member over 18 with the most recent birthday was asked to participate. Only one member per household was interviewed and interviews typically lasted 45 minutes. A total of 2,500 participants were recruited including an oversample of 500 Hispanic residents. This study will use only data from married individuals (N = 1,528). All married individuals in this data set were heterosexual.

Demographic information for the sample is reported in Table 1. Average age for the sample was 47.73 ± 14.64 and average length of relationship in years was 21.96 ± 14.67 . The majority of the sample was female (59%), White (83%), not Hispanic (63%), and in their first marriage (76%). Of those not in their first marriage, 18.5% reported having been married once before, 3.9% twice before, 1.2% three times before, and .2% four times before. The median number of children in the home was one child with a range of zero (37% of the sample) to 12 (.1%) children. Household income was measured categorically (under \$15k, \$15k-under \$25k, \$25k-under \$50k, \$50k-under \$75k, \$75k-under \$100k, and \$100k or more) and was fairly

evenly distributed for those with incomes above \$25,000, range 14.1% - 19.7% for these income levels.

Measures

See Table 2 for a list of all the relational constructs and their specific items used in these analyses.

Dominance. Respondents were asked seven dichotomous (yes or no) questions concerning their perception of their partner's dominance in the relationship. Items included a range of domineering behaviors. Examples are believing one's partner "is jealous or possessive," "shouts or swears at you," and "threatens to hurt you." These items originated from the National Violence Against Women Survey and have been shown to have good reliability ($\alpha = .70$) (Johnson & Leone, 2005). Johnson and Leone also looked at the factor structure of these items using principal components analysis and found them to constitute a single construct. Cronbach's alpha for this scale in the current study was .73 (.68 for men and .76 for women), suggesting that this scale remains reliable in both female and male samples.

Commitment. Two types of commitment were assessed in this survey. Constraint commitment consisted of four items on a 4-point Likert scale from "strongly disagree" to "strongly agree" related to respondents' feelings of being stuck in their relationship. Items for this study were modified from Johnson, Caughlin, and Huston (1999). Examples include "Even if I wanted leave this relationship I couldn't do so" and "I feel trapped or pressured by circumstance to continue in this relationship." Cronbach's alpha for this scale was .60. Dedication commitment was measured by four items on the same 4-point Likert scale examining respondents' level of desire to stay in their relationship. Items were modified from Stanley and Markman (1992; 1996) and ranged from "my relationship is the most important thing in life" to

“will likely leave relationship someday.” Previous studies have shown that scales using these items are reliable with Cronbach’s alphas $> .70$ (Stanley & Markman, 1992; 1996). Cronbach’s alpha for this scale was $.79$.

Bondedness. Respondents were asked four questions pertaining to their level of bondedness or quality time spent together with their partner. Questions ranged from “Regularly have fun together” to “have an active/satisfying sex life” and were measured on a 4-point Likert scale (Karney, Garvan, & Thomas, 2003; Stanley & Markman, 1996). Items, where necessary, were reverse coded such that higher scores indicated a stronger bond between partners. Cronbach’s alpha for this scale was $.69$.

Negative Communication. Respondents’ negative attitudes about their relationship were measured by seven items on a 4-point Likert scale. Items were compiled from several sources for this study including Stanley and Markman (1996), Fincham and Linfield (1997), and Braiker and Kelley (1979). Examples of items were “I think a lot about bad times in our relationship,” “little arguments become ugly fights,” and “My partner is quick to forgive me.” Cronbach’s alpha for this scale was $.80$.

Positive Orientation. Respondents completed 11 items assessing their positive attitudes about their partner. Responses were on a 4-point Likert scale ranging from “Frequently” to “Never” or “Strongly agree” to “Strongly disagree” depending on the item phrasing. Items ranged from “I am comfortable telling my partner what I need from him/her,” to “How often have you felt that your partner made your life especially interesting and exciting.” Two items were modified from previous studies (Braiker & Kelley, 1979; Huston & Vangelisit, 1991), while the remaining items were created for this study. Cronbach’s alpha for this scale was $.87$.

Satisficing. Respondents' willingness to settle in their relationship was assessed by four items created for this study. These included items such as "I find it hard to imagine finding a partner better than this one" and "I am willing to accept disappointments in order to keep this relationship together." Responses were on a 4-point Likert scale. Cronbach's alpha for this scale was .63.

Satisfaction. Relationship satisfaction was assessed with six items on a 4-point Likert scale. Examples of items include, "how satisfied would you say you are in your relationship," "how healthy would you say your relationship is, and "this relationship brings out the best in me." Items were modified from surveys conducted by Stanley and Markman (1996) and Fincham and Linfield (1997). Cronbach's alpha for this scale was .76.

Data Analysis

The statistical software R was used for all analyses (R Core Team, 2013). Due to the nature of the relational scales, having either dichotomous items or 4-point Likert scale items, all items for these scales were coded as ordered categorical variables. These endogenous variables were then used in each construct model. Five possible models of marital satisfaction were tested using Confirmatory Factor Analysis (CFA): 1) correlated constructs model, 2) single factor model, 3) two-factor model, 4) bi-factor model with 2 general constructs, and 5) bi-factor model with one general construct. Traditional CFA's, those that constrain each item to load onto one factor, were employed as well as bi-factor models in which items loaded onto their respective relational construct as well as a general factor. As Reise (2012) described in his review of bi-factor modeling, bi-factor models are particularly well-suited for modeling complex, multidimensional constructs. This is due to its ability to parse out shared variance across items reflected in a general factor from shared variance among smaller groups of items better

accounted for by separate constructs from the general factor. For example, Simms, Gros, Watson, and O'Hara (2008) used bi-factor modeling in their study exploring general and group factor contributions to constructs on the Inventory of Depression and Anxiety Symptoms. They found that most items contributed equally to the general and group factor; however, some scales were found to be better markers of the general factor while others were better markers of specific group factors. This modeling approach, therefore, has a unique ability to reflect the current struggle in the literature to accurately define marital satisfaction when correlations with other relational constructs are often very high. By constraining these covariances to zero, this type of model is able to show whether a large group of items shares an underlying common variance that is separate from the variance shared among a smaller group of items that is explained by a different latent variable. See Figures 1 and 2 for conceptual diagrams of each proposed model.

Correlated constructs model. For this model, all relational constructs were represented by their respective items and allowed to covary with other relational constructs (Figure 1A). This model assumes that there is no overarching concept of marital satisfaction.

Single factor model. This model will test the possibility that there is only one factor of marital satisfaction. All items from each relational construct will be represented by one general construct of marital satisfaction (Figure 1B).

Two-factor model. In accordance with theoretical interpretations of marital satisfaction (Glenn, 1998), this model tested the hypothesis that there are two distinct factors of marital satisfaction: adjustment and individual feelings. The adjustment factor was represented by items from the Dominance, Couple Bondedness, Negative Communication, and Positive Orientation scales. The individual feelings factor was represented by items from the Dedication commitment,

Constraint commitment, Satisficing, and Satisfaction scales. Adjustment and individual feelings constructs were allowed to covary (Figure 1C).

Bi-factor model with two general constructs. Bi-factor models will be included in this study to test the hypothesis that there may be shared variance among items that is best represented by two general constructs of feelings and adjustment, while remaining variance is best accounted for by each relational construct individually. Each relational construct will be represented in the model by their respective items and allowed to covary with other relational constructs. An adjustment factor represented by items from the Dominance, Bondedness, Negative Communication, and Positive Orientation scales and an individual feelings factor represented by items from the Dedication, Constraint, Satisficing, and Satisfaction scales will also be included in the model. These two factors will be orthogonal to, or not be allowed to covary with, the original relational constructs, however, they will be allowed to covary with each other (Figure 2A).

Bi-factor model with a single general construct. Like the bi-factor model described above, this model will test the hypothesis that there is variance best represented by each individual construct and some shared variance best represented by another general factor. Each relational construct will be represented in the model by their respective items and allowed to covary with other relational constructs. Unlike the bi-factor model with two general constructs, this model will constrain the covariance between the adjustment and feelings factors to 1, meaning that they represent a single construct of marital satisfaction. This general factor will be orthogonal to all other relational constructs (Figure 2B).

Each proposed model was examined with Confirmatory factor analyses (CFA) using the lavaan package in R (Rosseel, 2012). Fit for each construct will be examined using several

indices including chi-square goodness of fit statistic, root mean square error of approximation (RMSEA), weighted root mean square residuals (WRMR), Comparative Fit Index (CFI), and the Tucker-Lewis Index (TLI). Although there is debate about cutoffs for fit indices (Marsh, Hau, & Wen, 2004), in general, RMSEA values below .10 indicate acceptable fit (Hu & Bentler, 1998) and CFI and TLI values above .85 indicate mediocre fit and values above .90 indicate acceptable fit (Bentler & Bonett, 1980). For categorical indicators, Yu (2002) found that more conservative thresholds were appropriate: RMSEA values below .06, WRMR values below .90, and TLI and CFI values greater than .95. Scaled fit indices will be reported for all models due to the ordered nature of the items.

Where appropriate, models will be compared using nested model tests to examine the change in chi-square statistics between models. Significant differences on these tests indicate that the parent model, or the model with fewer degrees of freedom, is a better fit for the data. Parent-nested model pairs include: two-factor model and single factor model, bi-factor model with two general constructs and bi-factor model with a single general construct, bi-factor model with two general constructs and two-factor model, bi-factor model with a single general construct and single construct model, and both bi-factor models with the correlated constructs model.

REFERENCES

- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, *88*, 588.
- Braiker, H. B., & Kelly, H. H. (1979). Conflict in the development of close relationships. In R. Burgess & T. Huston (Eds.), *Social exchange in developing relationships* (pp. 135–168). New York: Academic Press.
- Fincham, F. D., & Linfield, K. J. (1997). A new look at marital quality: Can spouses feel positive and negative about their marriages? *Journal of Family Psychology*, *11*, 489-502.
- Fincham, F. D., & Rogge, R. (2010). Understanding relationship quality: Theoretical challenges and new tools for assessment. *Journal of Family Theory & Review*, *2*, 227–242.
doi:10.1111/j.1756-2589.2010.00059.x
- Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology*, *21*, 572–583. doi:10.1037/0893-3200.21.4.572
- Glenn, N. D. (1998). The course of marital success and failure in five American 10-year marriage cohorts. *Journal of Marriage and the Family*, *60*, 569–576.
- Harris, S.M., Glenn, N.D, Rappleyea, D.L., Diaz-Loving, R., Hawkins, A.J., Daire, A. P., Osborne, C., & Huston, T.L. (2008). Together in Texas: Baseline report on marriage in the lone star state. Austin, TX: Health and Human Services Commission.
- Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, *3*, 424.

- Huston, T. L., & Vangelisti, A. L. (1991). Socioemotional behavior and satisfaction in marital relationships: A longitudinal study. *Journal of Personality and Social Psychology*, *61*, 721-733.
- Johnson, M. P., Caughlin, J. P., & Huston, T. L. (1999). The tripartite nature of marital commitment: Personal, moral, and structural reasons to stay married. *Journal of Marriage and the Family*, *61*, 160-177.
- Johnson, M. P., & Leone, J. M. (2005). The differential effects of intimate terrorism and situational couple violence: Findings from the National Violence Against Women survey. *Journal of Family Issues*, *26*, 322-349.
- Karney, B. R., Garvan, C. W., & Thomas, M. S. (2003). *Family formation in Florida: 2003 baseline survey of attitudes, beliefs, and demographics relating to marriage and family formation*. University of Florida.
- Marsh, H. W., Hau, K.-T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural Equation Modeling*, *11*, 320-341.
- Mattson, R. E., Paldino, D., & Johnson, M. D. (2007). The increased construct validity and clinical utility of assessing relationship quality using separate positive and negative dimensions. *Psychological Assessment*, *19*, 146.
- R Core Team (2013). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. <http://www.R-project.org/>.
- Reise, S. P. (2012). Invited Paper: The rediscovery of bifactor measurement models. *Multivariate Behavioral Research*, *47*, 667-696.
<http://doi.org/10.1080/00273171.2012.715555>

- Rosseel, Y. (2012). lavaan: An R Package for Structural Equation Modeling. *Journal of Statistical Software*, 48, 1-36. <http://www.jstatsoft.org/v48/i02/>.
- Schoebi, D., Karney, B. R., & Bradhury, T. N. (2012). Stability and change in the first 10 years of marriage: Does commitment confer benefits beyond the effects of satisfaction? *Journal of Personality & Social Psychology*, 102, 729–742. doi:10.1037/a0026290
- Simms, L.J., Gros, D.F., Watson, D., & O'Hara, W. (2008). Parsing the general and specific components of depression and anxiety with bifactor modeling. *Depression and Anxiety*, 25, E34–E46.
- Stanley, S. M., & Markman, H. J. (1992). Assessing commitment in personal relationships. *Journal of Marriage and the Family*, 54, 595-608.
- Stanley, S. M. & Markman, H. J. (1996). *Marriage in the 90s: A nationwide random phone survey*. Denver, CO: PREP, Inc.
- Stanley, S. M., Whitton, S. W., Sadberry, S. L., Clements, M. L., & Markman, H. J. (2006). Sacrifice as a predictor of marital outcomes. *Family Process*, 45, 289–303.
- Wieselquist, J., Rusbult, C. E., Foster, C. A., & Agnew, C. R. (1999). Commitment, pro-relationship behavior, and trust in close relationships. *Journal of Personality and Social Psychology*, 77, 942–966. doi:10.1037/0022-3514.77.5.942
- Yu, C.-Y. (2002). Evaluation of model fit indices for latent variable models with categorical and continuous outcomes. Unpublished dissertation. Retrieved March 15, 2015, from Mplus website <http://www.statmodel.com/download/Yudissertation.pdf>

Table 1. *Demographic information for married individuals.*

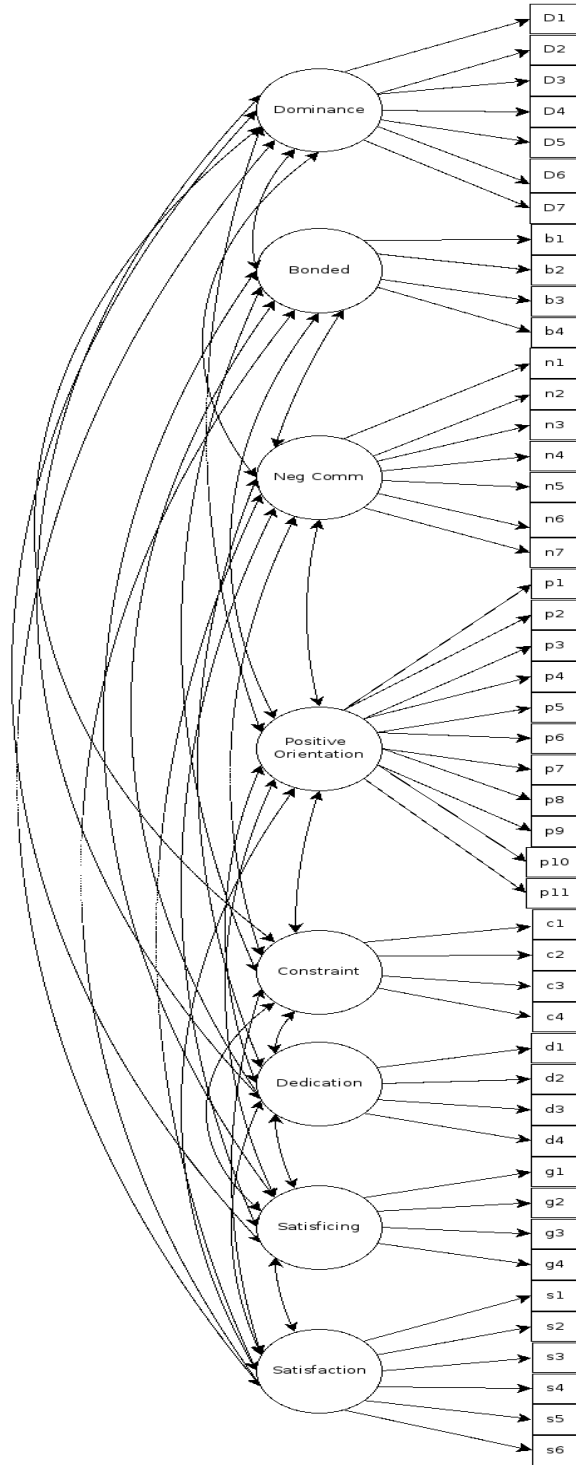
<i>Variable</i>	<i>Mean (SD) or Frequency (%)</i>
Age	47.73 (14.64)
% Women	59.3%
Race	
White	82.5%
Black	4.1%
East Asian	0.9%
Native American	1.6%
Mixed Race or Other	2%
Hispanic Ethnicity	35.8%
Income	
Under \$15,000	4.8%
\$15,000 – \$24,999	8.6%
\$25,000 – \$49,999	19.7%
\$50,000 – \$74,999	17.2%
\$75,000 – \$99,999	14.1%
\$100,000 or more	16.8%
Length of Relationship	21.96 (14.67)

Table 2. *List of items by relational construct.*

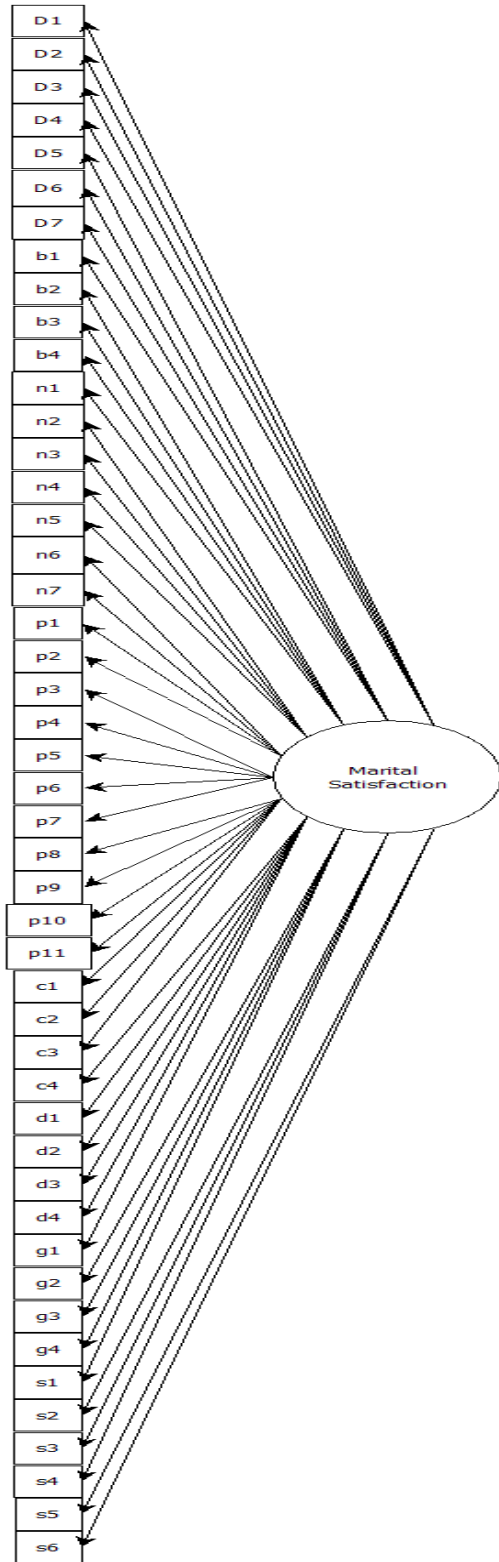
<i>Construct</i>	<i>Item number</i>	<i>Item Name</i>
Dominance/ Aggression	h316a	Knowing where you are at all times
	h316b	Shouts or swears at you
	h316c	Jealous or possessive
	h316d	Threatens to hurt you or others
	h316e	Controls access to money
	h316f	Makes you feel inadequate
	h316g	Calls you names in front of others
Constraint Commitment	h279	Even if I wanted to leave I couldn't
	h302	Feel trapped or pressured to continue relationship
	h298	Could never leave b/c would feel guilty
	h287	Could never leave b/c would let child down
Dedication Commitment	h268	Relationship most important thing in life
	h274	Totally dedicated to making relationship work
	h290r	Just about ready to give up on relationship
	h295r	Will likely leave relationship someday
Couple Bondedness	h303	Have active/satisfying sex life
	h309	Spend a lot of time together alone
	h310r	Never have great conversations
	h311	Regularly have fun together
Negative Communication	h278	Takes me a long time to get over argument with partner
	h282	Think a lot about bad times in relationship
	h286	Partner criticizes/belittles opinions/feelings/desires
	h301r	Partner quick to forgive me
	h305r	Hardly ever argue
	h307	One of us withdraws when arguing
	h308	Little arguments become ugly fights
Positive Orientation	h284	Comfortable telling partner what I need
	h275r	Often wonder whether I love my partner very much
	h270	My partner often brings up the good moments
	h288	Count on partner to listen sympathetically
	h317r	How often partner feels especially caring
	h318r	How often partner makes life exciting
	h319r	How often felt that partner makes you feel good about own ideas
	h320r	Partner makes you feel good about kind of person you are
	h299r	How often wonder about whether partner loves you very much
	h269	Both of us have a very good heart
	h280	Very affectionate with each other
Satisficing	h267	Hard to find someone better
	h273r	Want more than partner can give
	h283	Accept disappointments to keep relationship
	h297r	Think there is someone better out there
Satisfaction	h263	How satisfied are you with relationship/marriage
	h264	How good are the good feelings
	h265r	How bad are the bad feelings
	h266	How healthy is your relationship
	h272r	Relationship brings out the worst in me
	h294	Relationship brings out the best in me

Figure 1. *Proposed structural models.*

A. Correlated Factors Model



B. Single Factor Model



C. Two-factor Model

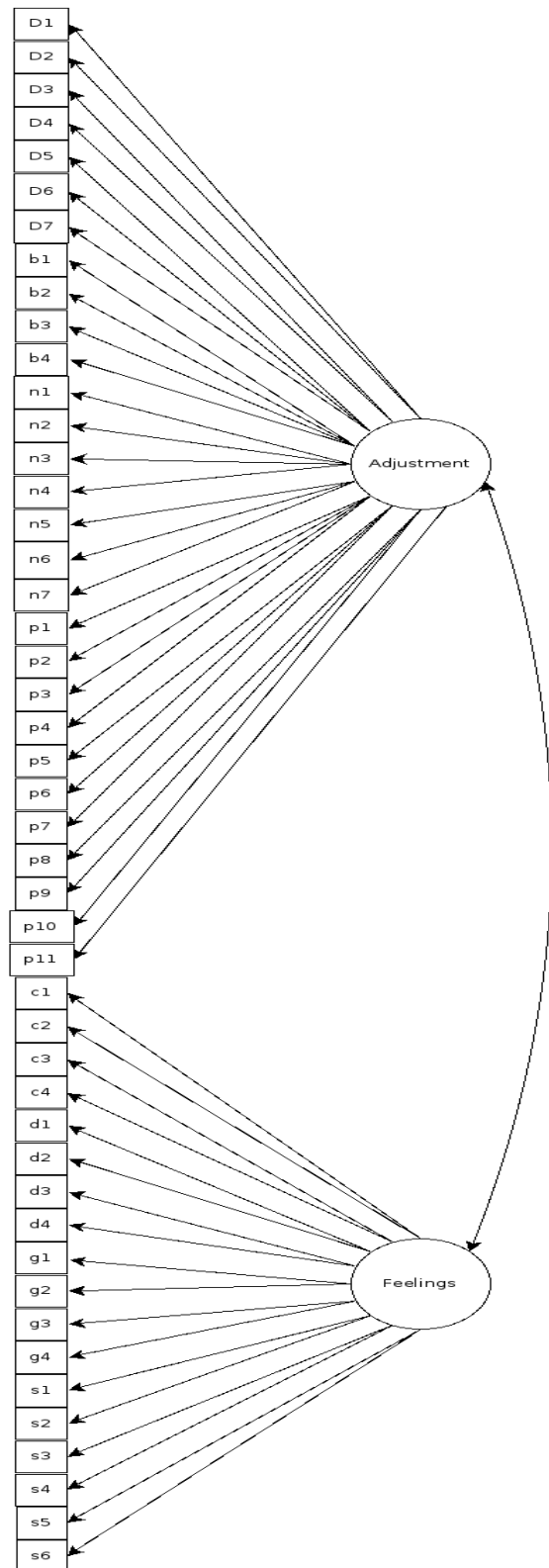
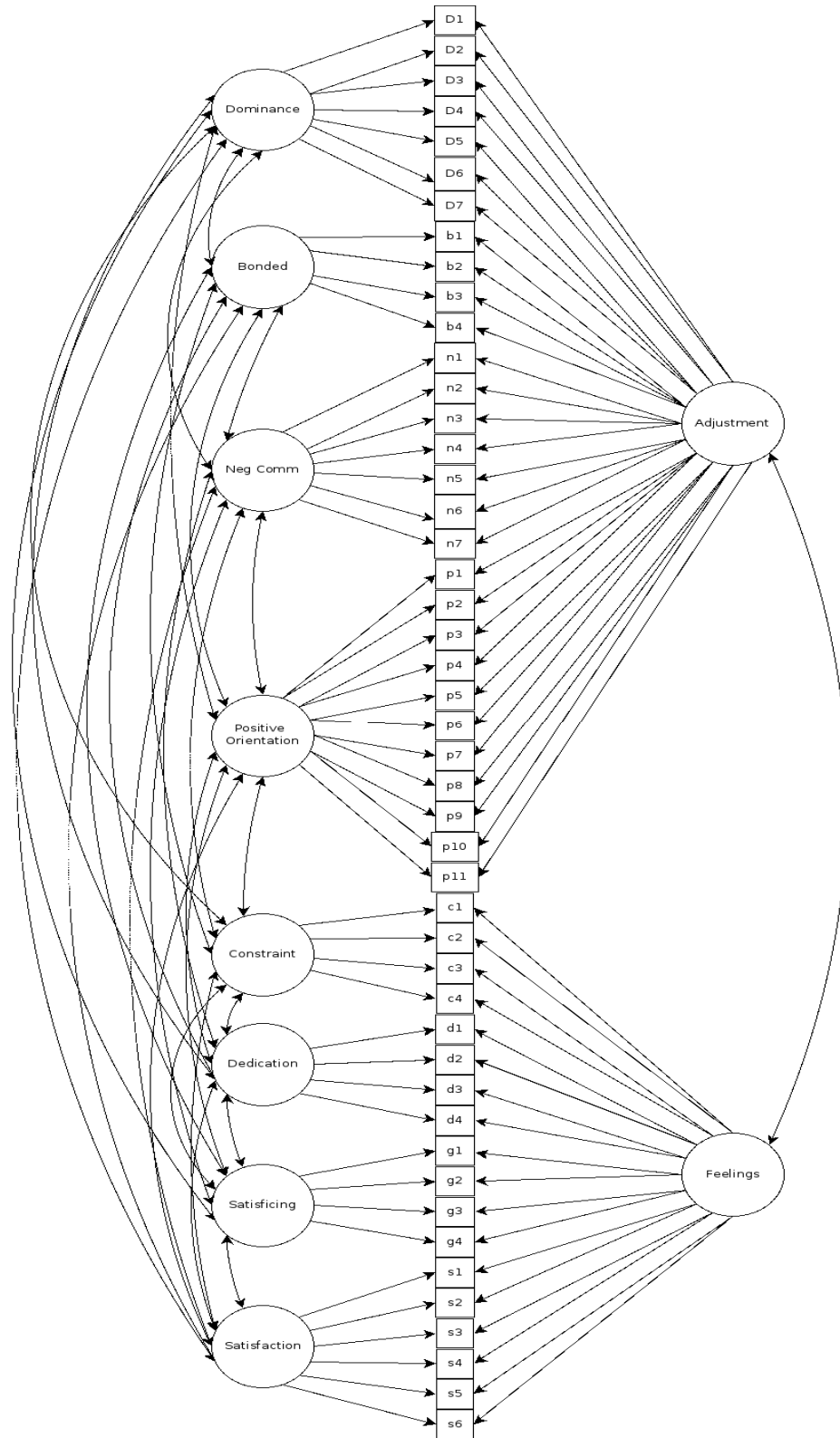
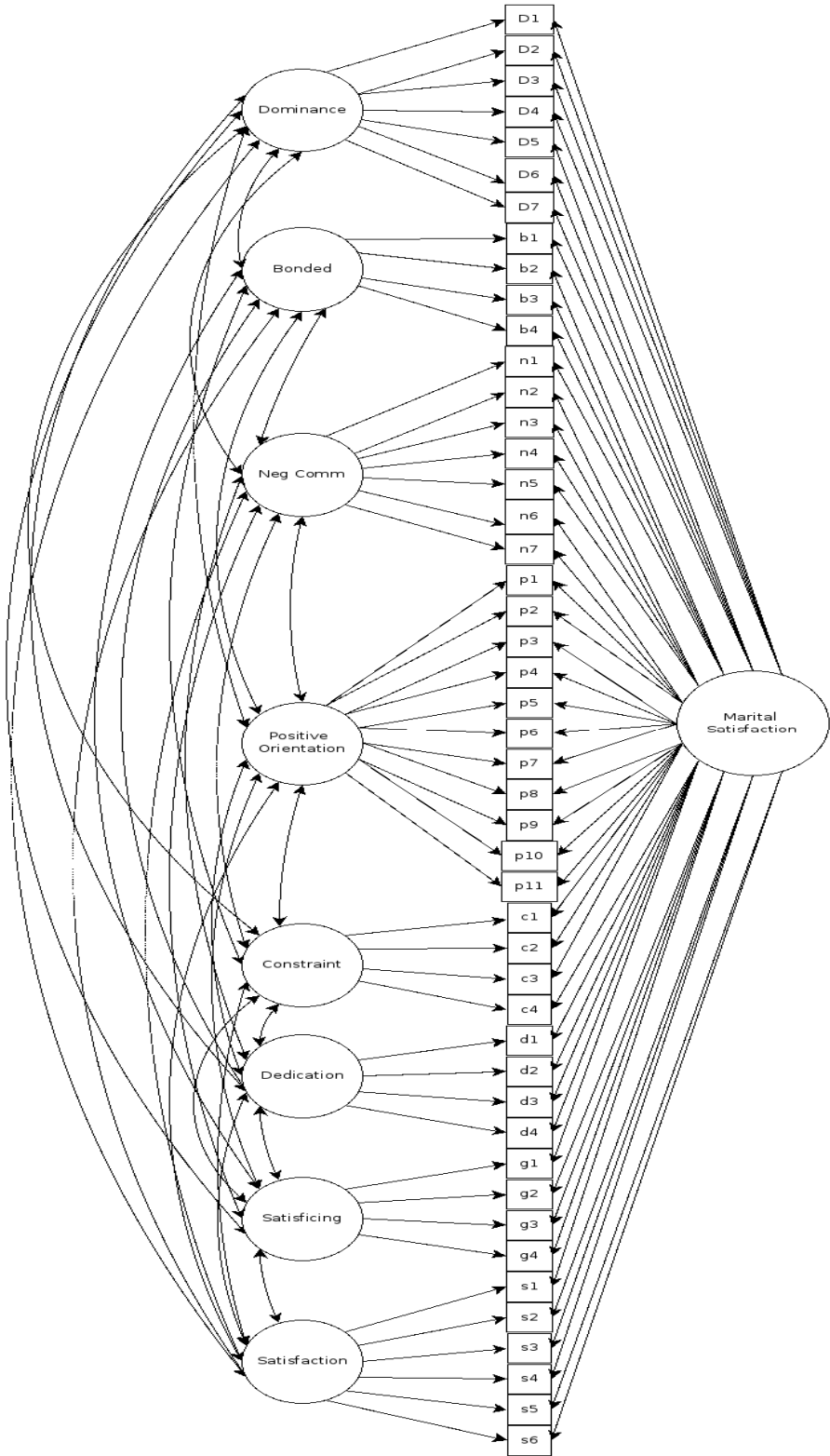


Figure 2. Proposed bi-factor structural models.

A. Bi-Factor with Two General Constructs



B. Bi-factor Model with a Single General Construct



CHAPTER FOUR: RESULTS

Each model was analyzed using CFA in R (R Core Team, 2013) with the lavaan package (Rosseel, 2012). All exogenous variables were coded as ordered as they were either dichotomously measured or utilized a 4-point Likert scale. Model fit was compared against established thresholds: RMSEA values below .10 indicate acceptable fit (Hu & Bentler, 1998) and CFI and TLI values above .85 indicate mediocre fit and values above .90 indicate acceptable fit (Bentler & Bonett, 1980). Lu (2002) argued for more conservative thresholds when analyzing categorical indicators including: RMSEA values below .06, WRMR values below .90, and TLI and CFI values greater than .95. Fit statistics for each model are presented below and compared against both more liberal and conservative thresholds. A summary of fit statistics for each model is presented in Table 1. Nested models were then compared where appropriate and these results follow the presentation of model fit.

Examination of Model Fit for each Proposed Model

Correlated factors model. In this model, each construct was represented by its respective set of items and allowed to covary with all other constructs. Model fit was mediocre to poor (Table 1). RMSEA was acceptable and CFI was mediocre while TLI and WRMR indicated poor fit. Based on more conservative fit indices such as those described by Lu (2002), all indices were in the poor range. All items loaded significantly onto each construct with the exception of one item on the constraint commitment scale, “I could never leave because I would feel guilty” (Table 2). Correlations between relational constructs were in the expected directions (e.g., dominance was negatively related to dedication commitment and positively related to negative communication). See Table 3 for correlations between relational constructs. All correlations between relational constructs were significant, though some constructs were very highly

associated with correlations greater than .90. These included: satisficing with negative communication (-.91), dedication commitment (.99), positive orientation (.95), and satisfaction (.94), as well as positive orientation and satisfaction (.94).

Two-factor model. All items for this model loaded onto either an adjustment factor or individual feelings factor. Items were selected for each factor on the basis of the theoretical relationship between each parent construct and either adjustment or individual feelings. For example, “My partner shouts or swears at me” is a dominance item, and, as dominance is theoretically closest to the description of marital adjustment in the literature, the item was placed onto the adjustment factor. Model fit was mediocre to poor (Table 1). RMSEA was in the acceptable fit range. CFI and TLI were in the mediocre range while WRMR indicated poor fit. According to Lu’s (2002) standards, all fit indices were in the poor fit range. All items loaded significantly onto both factors with the exception of the item “I could never leave because I would feel guilty” with a loading of -0.02 (Table 4). The correlation between adjustment and individual feelings was very high (.95).

Single-factor model. All items in this model were assigned to load onto one general marital satisfaction construct. Model fit was mediocre to poor (Table 1). RMSEA was in the acceptable fit range and both CFI and TLI were indicated mediocre fit. WRMR, however, indicated poor fit. When compared to Lu’s (2002) standards, all indices were in the poor fit range. Like previous models, all items loaded significantly onto this factor with the exception of “I could never leave because I would feel guilty” (Table 5). The loading for this item was -0.014.

Bi-factor model with two general constructs. This model builds on the correlated constructs model in that each relational construct is represented in the model by its respective set of items and that these constructs are allowed to covary with other relational constructs. In

addition to the base relational constructs, items were also assigned to one of two general factors: adjustment or individual feelings as in the two-factor model. Thus, each item loaded onto two latent constructs – its parent relational construct and either the adjustment or individual feelings factor. Relational constructs were held orthogonal to both the adjustment and individual feelings factors, though covariances were allowed within the base set of relational constructs and between the two general factors. Model fit was acceptable (Table 1). RMSEA was acceptable with regard to both thresholds. CFI and TLI were in the acceptable fit range for more liberal cut-offs, but did not meet the more stringent criterion of greater than or equal to .95 suggested by Lu (2002). WRMR indicated poor fit. All items loaded onto their respective relational constructs significantly (Table 6). Correlations between all relational constructs were significant and were in the expected direction (Table 7). Very high correlations were found between dedication and positive orientation (0.95), satisficing (0.98), and satisfaction (0.96); negative communication and positive orientation (-0.91), satisficing (-0.91), and satisfaction (-0.96); positive orientation and satisficing (1.01) and satisfaction (1.02); and satisficing and satisfaction (0.99). The correlation between adjustment and individual feelings was 0.68.

Four of the twenty-nine items did not load significantly onto the adjustment factor, with loadings for these items ranging from 0.00 to 0.06 (Table 6). Loadings for the rest of the items ranged from -0.09 to 0.80. Items that did not load significantly were from three constructs: 1) “How often do you wonder about whether your partner loves you very much” was from positive orientation, 2) “It takes me a long time to get over an argument with my partner” and “I think a lot about bad times in my relationship” were items from negative communication, and 3) “Partner knowing where you are at all times” was from dominance.

Thirteen of eighteen items loaded significantly onto the individual feelings factor with loadings ranging from -0.11 to 0.61. Three of the five items that did not load significantly were from the dedication commitment construct: “I am totally dedicated to making my relationship work,” “I am just about ready to give up on my relationship,” and “I will likely leave this relationship someday.” The other two items that did not load significantly were “I think there is someone better out there” from the satisficing construct and “My relationship brings out the worst in me” from the satisfaction construct. Loadings for these non-significant items ranged from 0.01 to -0.06.

Bi-factor model with a single general construct. This model was structured the same as the bi-factor model with two general constructs with the notable difference of constraining the correlation between adjustment and feelings to one. Model fit was good (Table 1). RMSEA, CFI, and TLI indicated good fit for both liberal and conservative thresholds. WRMR was in the poor fit range; however, as the other indices indicated very good fit, this model was considered to be the best fit for the data. Unlike the previous bi-factor model, not all items loaded onto their respective relational constructs significantly (Table 8). A total of ten items did not load significantly onto their designated relational construct: the constraint commitment item “I feel trapped or pressured to continue this relationship;” two negative communication items “It takes me a long time to get over an argument with my partner” and “I think a lot about bad times in the relationship;” three positive orientation items “I feel comfortable telling my partner what I need,” “How often do you wonder about whether your partner loves you very much,” and “Both of us have a very good heart;” and all four satisficing items. All ten of these items, however, did load significantly onto the general marital satisfaction construct. Only one item did not load onto this

general factor, “I could never leave because I would feel guilty.” Significant loadings for the general construct ranged from -0.20 to 0.88.

Correlations between several relational constructs were not significant in this model (Table 9). Significant correlations included: dominance with negative communication (0.81), positive orientation (-0.43), and satisfaction (-0.55); constraint commitment with dedication commitment (-0.25) and positive orientation (0.15); dedication with couple bondedness (0.40), negative communication (-0.51), positive orientation (0.57), and satisfaction (0.81); negative communication with positive orientation (-0.43) and satisfaction (-0.40); and positive orientation with satisfaction (0.71). All were in the expected direction. All correlations with satisficing were non-significant due to the lack of any significant loadings onto this construct.

Nested Model Tests

Nested model pairs that were tested included: 1) correlated factors and single factor models, 2) correlated factors and two-factor models, 3) two-factor and single-factor models, 4) bi-factor model with two general constructs and bi-factor model with a single general construct, 5) bi-factor model with two general constructs and correlated factors model, 6) bi-factor model with a single general construct and correlated factors model, 7) bi-factor model with two general constructs and two-factor model, and 8) bi-factor model with a single general construct and single factor model. Significant findings for the nested model test indicated that fit significantly worsened in the nested model and that the parent model, or model with fewer degrees of freedom, was the better fit for the data. All nested model tests were significant with the exception of pair four (Table 10). The correlated factors model was a better fit than either the single factor or two-factor models. For pair three, the significant test indicated that the two-factor model fit the data better than the single factor model, $\Delta\chi^2(1) = 118.71, p < .001$. For pairs five through

eight, the bi-factor models in each pair were found to better fit the data than any of the other models compared. In pair four, the nested model test was non-significant, which indicated that the fit for bi-factor model with a single general construct did not differ from the bi-factor model with two general constructs, $\Delta\chi^2(1) = -787.87, p = 1.00$. When fit is not different, the more parsimonious model is preferred, meaning the bi-factor model with a single general construct was preferred. Overall, this model was the simplest, best-fitting model of marital satisfaction.

Findings

Results indicated that the bi-factor model with a single general construct was the best-fitting model of marital satisfaction. This partially supported the hypothesis that a bi-factor model would be best suited to the data when compared to simple one and two factor structures. As shown in the final bi-factor model with a single general construct, all items except one shared a common variance represented by the marital satisfaction construct. In the case of satisficing, once this general shared variance was accounted for, none of the four items on this scale loaded significantly onto the satisficing scale. A possible interpretation for this finding is that satisficing is not a wholly unique construct from marital satisfaction and does not provide information above and beyond that which is captured by a general marital satisfaction construct. Items on other scales, likewise, no longer loaded significantly onto their respective relational constructs, indicating that these items are more indicative of general marital satisfaction than the particular relational construct they were designed to measure. Additionally, correlations between relational constructs were smaller and there were fewer significant relationships between constructs once a general marital satisfaction construct was introduced. Some constructs, therefore, may only be related by the variance shared with marital satisfaction, such as dominance and both commitment constructs.

Although hypothesis two was partially supported, the expectation that marital satisfaction would be best represented as two factors was not supported. Given the movement towards multidimensional measures of marital satisfaction (Funk & Rogge, 2007; Mattson & Paldino, 2007), it was hypothesized that marital satisfaction would be best represented by a two factor model that distinguishes between the two major conceptualizations of marital satisfaction, adjustment, and individual feelings. Although the two-factor model performed better than a simple unidimensional model where all items loaded onto one factor, this was not the case in the bi-factor model comparisons. The bi-factor model employing a two-factor structure of marital satisfaction was not a significantly better fit than the bi-factor model with a single general construct. This finding contradicts previous theoretical models of marital satisfaction that focus on an individual feelings piece and an adjustment piece to marital satisfaction (Glenn, 1998). Rather, the two conceptualizations of marital satisfaction may actually have an underlying shared variance that accounts for their relationship with marital satisfaction while also maintaining unique variance that is unrelated to marital satisfaction. It is also possible that these distinctions have more to do with the variance accounted for by each relational construct than that associated with marital satisfaction.

REFERENCES

- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, *88*, 588.
- Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology*, *21*, 572–583. doi:10.1037/0893-3200.21.4.572
- Glenn, N. D. (1998). The course of marital success and failure in five American 10-year marriage cohorts. *Journal of Marriage and the Family*, *60*, 569–576.
- Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, *3*, 424.
- Mattson, R. E., Paldino, D., & Johnson, M. D. (2007). The increased construct validity and clinical utility of assessing relationship quality using separate positive and negative dimensions. *Psychological Assessment*, *19*, 146-151.
- R Core Team (2013). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. <http://www.R-project.org/>.
- Rosseel, Y. (2012). lavaan: An R Package for Structural Equation Modeling. *Journal of Statistical Software*, *48*, 1-36. <http://www.jstatsoft.org/v48/i02/>.
- Yu, C.-Y. (2002). Evaluation of model fit indices for latent variable models with categorical and continuous outcomes. Unpublished dissertation. Retrieved March 15, 2015, from Mplus website <http://www.statmodel.com/download/Yudissertation.pdf>

Table 1. Comparison of model fit statistics.

<i>Fit Statistic</i>	<i>Correlated Factors</i>	<i>Two-Factor Model</i>	<i>Single Factor Model</i>	<i>Bi-factor Two Constucts</i>	<i>Bi-factor Single Construct</i>
χ^2 (df)	6926.58 (1006) $p < .001$	7694.81 (1033) $p < .001$	7797.55 (1034) $p < .001$	3973.94 (958) $p < .001$	3025.74 (959) $p < .001$
RMSEA (90% CI)	.079 (.077 - .081)	.083 (.081 - .084)	.083 (.082 - .085)	.058 (.056 - .060)	.048 (.046-.050)
CFI	0.879	0.864	0.862	0.939	0.958
TLI	0.807	0.858	0.856	0.931	0.953
WRMR	2.643	2.825	2.845	1.770	1.503

Table 2. *Correlated factors model item loadings.*

<i>Construct</i>	<i>Item number</i>	<i>Loading</i>	<i>Item Name</i>
Dominance/ Aggression	h316a	0.63	Knowing where you are at all times
	h316b	0.80	Shouts or swears at you
	h316c	0.67	Jealous or possessive
	h316d	0.80	Threatens to hurt you or others
	h316e	0.57	Controls access to money
	h316f	0.98	Makes you feel inadequate
	h316g	0.79	Calls you names in front of others
Constraint Commitment	h279	0.31	Even if I wanted to leave I couldn't
	h302	1.14	Feel trapped or pressured to continue relationship
	<i>h298</i>	<i>0.04</i>	<i>Could never leave b/c would feel guilty</i>
	h287	0.27	Could never leave b/c would let child down
Dedication Commitment	h268	0.69	Relationship most important thing in life
	h274	0.70	Totally dedicated to making relationship work
	h290r	0.81	Just about ready to give up on relationship
	h295r	0.92	Will likely leave relationship someday
Couple Bondedness	h303	0.71	Have active/satisfying sex life
	h309	0.58	Spend a lot of time together alone
	h310r	0.69	Never have great conversations
	h311	0.66	Regularly have fun together
Negative Communication	h278	0.63	Takes me a long time to get over argument with partner
	h282	0.80	Think a lot about bad times in relationship
	h286	0.76	Partner criticizes/belittles opinions/feelings/desires
	h301r	0.62	Partner quick to forgive me
	h305r	0.51	Hardly ever argue
	h307	0.50	One of us withdraws when arguing
	h308	0.74	Little arguments become ugly fights
Positive Orientation	h284	0.64	Comfortable telling partner what I need
	h275r	0.75	Often wonder whether I love my partner very much
	h270	0.67	My partner often brings up the good moments
	h288	0.77	Count on partner to listen sympathetically
	h317r	0.68	How often partner feels especially caring
	h318r	0.66	How often partner makes life exciting
	h319r	0.69	How often felt that partner makes you feel good about own ideas
	h320r	0.75	Partner makes you feel good about kind of person you are
	h299r	0.81	How often wonder about whether partner loves you very much
	h269	0.80	Both of us have a very good heart
	h280	0.75	Very affectionate with each other
Satisficing	h267	0.66	Hard to find someone better
	h273r	0.76	Want more than partner can give
	h283	0.29	Accept disappointments to keep relationship
	h297r	0.84	Think there is someone better out there
Satisfaction	h263	0.69	How satisfied are you with relationship/marriage
	h264	0.73	How good are the good feelings
	h265r	0.54	How bad are the bad feelings
	h266	0.76	How healthy is your relationship
	h272r	0.74	Relationship brings out the worst in me
	h294	0.85	Relationship brings out the best in me

Note. All loadings are significant unless italicized.

Table 3. *Correlated factors model correlations.*

<i>Relational Constructs</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
1 Dominance	--							
2 Constraint	0.48	--						
3 Dedication	-0.46	-0.71	--					
4 Bondedness	-0.47	-0.63	0.73	--				
5 Negative Comm	0.77	0.75	-0.86	-0.84	--			
6 Positive Or	-0.61	-0.70	0.88	0.85	-0.88	--		
7 Satisficing	-0.53	-0.76	0.99	0.79	-0.91	0.95	--	
8 Satisfaction	-0.70	-0.69	0.88	0.84	-0.89	0.94	0.94	--

Note. All correlations are significant unless italicized

Table 4. *Two-factor model item loadings.*

<i>Construct</i>	<i>Item number</i>	<i>Loading</i>	<i>Item Name</i>
Adjustment Dominance/ Aggression	h316a	-0.43	Knowing where you are at all times
	h316b	-0.56	Shouts or swears at you
	h316c	-0.46	Jealous or possessive
	h316d	-0.57	Threatens to hurt you or others
	h316e	-0.40	Controls access to money
	h316f	-0.69	Makes you feel inadequate
	h316g	-0.56	Calls you names in front of others
Couple Bondedness	h303	0.62	Have active/satisfying sex life
	h309	0.51	Spend a lot of time together alone
	h310r	0.61	Never have great conversations
	h311	0.58	Regularly have fun together
Negative Communication	h278	-0.60	Takes me a long time to get over argument with partner
	h282	-0.76	Think a lot about bad times in relationship
	h286	-0.73	Partner criticizes/belittles opinions/feelings/desires
	h301r	-0.60	Partner quick to forgive me
	h305r	-0.49	Hardly ever argue
	h307	-0.48	One of us withdraws when arguing
	h308	-0.71	Little arguments become ugly fights
Positive Orientation	h284	0.63	Comfortable telling partner what I need
	h275r	0.74	Often wonder whether I love my partner very much
	h270	0.65	My partner often brings up the good moments
	h288	0.76	Count on partner to listen sympathetically
	h317r	0.67	How often partner feels especially caring
	h318r	0.65	How often partner makes life exciting
	h319r	0.68	How often felt that partner makes you feel good about own ideas
	h320r	0.74	Partner makes you feel good about kind of person you are
	h299r	0.80	How often wonder about whether partner loves you very much
	h269	0.79	Both of us have a very good heart
h280	0.74	Very affectionate with each other	
Feelings Constraint Commitment	h279	-0.24	Even if I wanted to leave I couldn't
	h302	-0.87	Feel trapped or pressured to continue relationship
	<i>h298</i>	<i>-0.02</i>	<i>Could never leave b/c would feel guilty</i>
	h287	-0.20	Could never leave b/c would let child down
Dedication Commitment	h268	0.65	Relationship most important thing in life
	h274	0.67	Totally dedicated to making relationship work
	h290r	0.77	Just about ready to give up on relationship
	h295r	0.87	Will likely leave relationship someday
Satisficing	h267	0.66	Hard to find someone better
	h273r	0.76	Want more than partner can give
	h283	0.29	Accept disappointments to keep relationship
	h297r	0.85	Think there is someone better out there
Satisfaction	h263	0.67	How satisfied are you with relationship/marriage
	h264	0.72	How good are the good feelings
	h265r	0.53	How bad are the bad feelings
	h266	0.75	How healthy is your relationship
	h272r	0.72	Relationship brings out the worst in me
	h294	0.83	Relationship brings out the best in me

Note. All loadings are significant unless italicized.

Table 5. *Single factor model item loadings.*

<i>Construct</i>	<i>Item number</i>	<i>Loading</i>	<i>Item Name</i>
Marital Satisfaction Dominance/ Aggression	h316a	-0.42	Knowing where you are at all times
	h316b	-0.55	Shouts or swears at you
	h316c	-0.45	Jealous or possessive
	h316d	-0.56	Threatens to hurt you or others
	h316e	-0.39	Controls access to money
	h316f	-0.68	Makes you feel inadequate
	h316g	-0.56	Calls you names in front of others
Constraint Commitment	h279	-0.24	Even if I wanted to leave I couldn't
	h302	-0.85	Feel trapped or pressured to continue relationship
	<i>h298</i>	<i>-0.01</i>	<i>Could never leave b/c would feel guilty</i>
	h287	-0.20	Could never leave b/c would let child down
Dedication Commitment	h268	0.64	Relationship most important thing in life
	h274	0.66	Totally dedicated to making relationship work
	h290r	0.76	Just about ready to give up on relationship
	h295r	0.86	Will likely leave relationship someday
Couple Bondedness	h303	0.62	Have active/satisfying sex life
	h309	0.51	Spend a lot of time together alone
	h310r	0.60	Never have great conversations
	h311	0.57	Regularly have fun together
Negative Communication	h278	-0.60	Takes me a long time to get over argument with partner
	h282	-0.75	Think a lot about bad times in relationship
	h286	-0.72	Partner criticizes/belittles opinions/feelings/desires
	h301r	-0.59	Partner quick to forgive me
	h305r	-0.48	Hardly ever argue
	h307	-0.47	One of us withdraws when arguing
	h308	-0.71	Little arguments become ugly fights
Positive Orientation	h284	0.62	Comfortable telling partner what I need
	h275r	0.73	Often wonder whether I love my partner very much
	h270	0.65	My partner often brings up the good moments
	h288	0.75	Count on partner to listen sympathetically
	h317r	0.66	How often partner feels especially caring
	h318r	0.65	How often partner makes life exciting
	h319r	0.67	How often felt that partner makes you feel good about own ideas
	h320r	0.73	Partner makes you feel good about kind of person you are
	h299r	0.79	How often wonder about whether partner loves you very much
	h269	0.78	Both of us have a very good heart
	h280	0.73	Very affectionate with each other
Satisficing	h267	0.65	Hard to find someone better
	h273r	0.75	Want more than partner can give
	h283	0.28	Accept disappointments to keep relationship
	h297r	0.83	Think there is someone better out there
Satisfaction	h263	0.66	How satisfied are you with relationship/marriage
	h264	0.71	How good are the good feelings
	h265r	0.52	How bad are the bad feelings
	h266	0.74	How healthy is your relationship
	h272r	0.71	Relationship brings out the worst in me
	h294	0.82	Relationship brings out the best in me

Note. All loadings are significant unless italicized.

Table 6. *Bi-factor model with two general constructs item loadings.*

<i>Construct</i>	<i>Loading</i>	<i>Item</i>	<i>Item Name</i>	<i>Loading</i>	<i>Construct</i>
Dominance/ Aggression	0.69	h316a	Knowing where you are at all times	-0.06	Adjustment
	0.64	h316b	Shouts or swears at you	-0.50	
	0.66	h316c	Jealous or possessive	-0.21	
	0.81	h316d	Threatens to hurt you or others	-0.21	
	0.59	h316e	Controls access to money	-0.13	
	0.85	h316f	Makes you feel inadequate	-0.50	
	0.68	h316g	Calls you names in front of others	-0.43	
Couple Bondedness	0.67	h303	Have active/satisfying sex life	0.24	
	0.48	h309	Spend a lot of time together alone	0.37	
	0.67	h310r	Never have great conversations	0.16	
	0.58	h311	Regularly have fun together	0.32	
Negative Communication	0.66	h278	Takes me a long time to get over argument with partner	0.00	
	0.82	h282	Think a lot about bad times in relationship	-0.01	
	0.72	h286	Partner criticizes/belittles opinions/feelings/desires	-0.23	
	0.56	h301r	Partner quick to forgive me	-0.31	
	0.43	h305r	Hardly ever argue	-0.31	
	0.48	h307	One of us withdraws when arguing	-0.15	
	0.73	h308	Little arguments become ugly fights	-0.17	
Positive Orientation	0.63	h284	Comfortable telling partner what I need	0.09	
	0.80	h275r	Often wonder whether I love my partner very much	-0.19	
	0.57	h270	My partner often brings up the good moments	0.39	
	0.68	h288	Count on partner to listen sympathetically	0.42	
	0.44	h317r	How often partner feels especially caring	0.65	
	0.38	h318r	How often partner makes life exciting	0.74	
	0.35	h319r	How often felt that partner makes you feel good about own ideas	0.80	
	0.44	h320r	Partner makes you feel good about kind of person you are	0.77	
	0.82	h299r	How often wonder about whether partner loves you very much	0.03	
	0.79	h269	Both of us have a very good heart	0.14	
0.68	h280	Very affectionate with each other	0.36		
Constraint Commitment	0.37	h279	Even if I wanted to leave I couldn't	0.33	Feelings
	1.02	h302	Feel trapped or pressured to continue relationship	-0.11	
	0.14	h298	Could never leave b/c would feel guilty	0.46	
	0.36	h287	Could never leave b/c would let child down	0.42	
Dedication Commitment	0.64	h268	Relationship most important thing in life	0.27	
	0.70	h274	Totally dedicated to making relationship work	0.06	
	0.83	h290r	Just about ready to give up on relationship	-0.06	
	0.92	h295r	Will likely leave relationship someday	0.01	
Satisficing	0.61	h267	Hard to find someone better	0.31	
	0.76	h273r	Want more than partner can give	0.13	
	0.27	h283	Accept disappointments to keep relationship	0.13	
	0.86	h297r	Think there is someone better out there	0.04	

Satisfaction	0.51	h263	How satisfied are you with relationship/marriage	0.61
	0.63	h264	How good are the good feelings	0.39
	0.40	h265r	How bad are the bad feelings	0.51
	0.58	h266	How healthy is your relationship	0.62
	0.73	h272r	Relationship brings out the worst in me	-0.06
	0.79	h294	Relationship brings out the best in me	0.25

Note. All loadings are significant unless italicized.

Table 7. *Bi-factor model with two general constructs correlations.*

<i>Relational Constructs</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
1 Dominance	--							
2 Constraint	0.59	--						
3 Dedication	-0.48	-0.77	--					
4 Bondedness	-0.36	-0.76	0.78	--				
5 Negative Comm	0.74	0.84	-0.87	-0.83	--			
6 Positive Or	-0.51	-0.84	0.95	0.86	-0.91	--		
7 Satisficing	-0.52	-0.83	0.98	0.82	-0.91	1.01	--	
8 Satisfaction	-0.68	-0.84	0.96	0.90	-0.96	1.02	0.99	--
	<i>Feelings</i>							
Adjustment	0.68							

Note. All correlations are significant unless italicized

Table 8. *Bi-factor model with a single general construct item loadings.*

<i>Construct</i>	<i>Loading</i>	<i>Item</i>	<i>Item Name</i>	<i>Loading</i>	<i>Construct</i>
Dominance/ Aggression	0.54	h316a	Knowing where you are at all times	-0.33	Adjustment Feelings
	0.73	h316b	Shouts or swears at you	-0.42	
	0.66	h316c	Jealous or possessive	-0.33	
	0.54	h316d	Threatens to hurt you or others	-0.47	
	0.41	h316e	Controls access to money	-0.33	
	0.76	h316f	Makes you feel inadequate	-0.55	
	0.73	h316g	Calls you names in front of others	-0.40	
Couple Bondedness	0.27	h303	Have active/satisfying sex life	0.60	
	0.59	h309	Spend a lot of time together alone	0.43	
	0.26	h310r	Never have great conversations	0.58	
	0.47	h311	Regularly have fun together	0.53	
Negative Communication	0.05	h278	Takes me a long time to get over argument with partner	-0.61	
	0.01	h282	Think a lot about bad times in relationship	-0.77	
	0.37	h286	Partner criticizes/belittles opinions/feelings/desires	-0.69	
	0.31	h301r	Partner quick to forgive me	-0.56	
	0.44	h305r	Hardly ever argue	-0.42	
	0.26	h307	One of us withdraws when arguing	-0.45	
	0.31	h308	Little arguments become ugly fights	-0.68	
Positive Orientation	0.01	h284	Comfortable telling partner what I need	0.63	
	-0.27	h275r	Often wonder whether I love my partner very much	0.77	
	0.31	h270	My partner often brings up the good moments	0.62	
	0.32	h288	Count on partner to listen sympathetically	0.72	
	0.62	h317r	How often partner feels especially caring	0.50	
	0.72	h318r	How often partner makes life exciting	0.45	
	0.78	h319r	How often felt that partner makes you feel good about own ideas	0.43	
	0.74	h320r	Partner makes you feel good about kind of person you are	0.51	
	-0.05	h299r	How often wonder about whether partner loves you very much	0.81	
	-0.01	h269	Both of us have a very good heart	0.80	
	0.27	h280	Very affectionate with each other	0.71	
Constraint Commitment	0.58	h279	Even if I wanted to leave I couldn't	-0.24	
	0.04	h302	Feel trapped or pressured to continue relationship	-0.87	
	0.70	h298	Could never leave b/c would feel guilty	-0.01	
	0.75	h287	Could never leave b/c would let child down	-0.20	
Dedication Commitment	0.07	h268	Relationship most important thing in life	0.65	
	-0.23	h274	Totally dedicated to making relationship work	0.68	
	-0.24	h290r	Just about ready to give up on relationship	0.78	
	-0.22	h295r	Will likely leave relationship someday	0.88	
Satisficing	0.08	h267	Hard to find someone better	0.66	
	0.05	h273r	Want more than partner can give	0.77	
	-0.15	h283	Accept disappointments to keep relationship	0.31	
	-0.04	h297r	Think there is someone better out there	0.85	

Satisfaction	0.57	<i>h263</i>	How satisfied are you with relationship/marriage	0.55
	0.35	<i>h264</i>	How good are the good feelings	0.66
	0.56	<i>h265r</i>	How bad are the bad feelings	0.42
	0.60	<i>h266</i>	How healthy is your relationship	0.62
	-0.17	<i>h272r</i>	Relationship brings out the worst in me	0.73
	0.12	<i>h294</i>	Relationship brings out the best in me	0.83

Note. All loadings significant unless italicized.

Table 9. *Bi-factor model with a single general construct correlations.*

<i>Relational Constructs</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
1 Dominance	--							
2 Constraint	<i>0.09</i>	--						
3 Dedication	<i>-0.21</i>	<i>-0.25</i>	--					
4 Bondedness	<i>-0.11</i>	<i>0.06</i>	<i>0.40</i>	--				
5 Negative Comm	<i>0.81</i>	<i>0.06</i>	<i>-0.51</i>	<i>-0.43</i>	--			
6 Positive Or	<i>-0.43</i>	<i>0.15</i>	<i>0.57</i>	<i>0.50</i>	<i>-0.43</i>	--		
7 Satisficing	<i>-0.64</i>	<i>-1.50</i>	<i>3.28</i>	<i>0.24</i>	<i>-0.53</i>	<i>0.72</i>	--	
8 Satisfaction	<i>-0.55</i>	<i>0.02</i>	<i>0.81</i>	<i>0.51</i>	<i>-0.40</i>	<i>0.71</i>	<i>1.57</i>	--

Note. All correlations are significant unless italicized

Table 10. *Nested model tests.*

<i>Nested Model Pairs</i>	$\Delta \chi^2$ (Δdf)	<i>Better Fitting Model</i>
1. Correlated Factors vs Single Factor	74.53 (28) $p < .001$	Correlated Factors
2. Correlated Factors vs Two-Factor	64.27 (27) $p < .001$	Correlated Factors
3. Two-Factor vs. Single Factor	118.71 (1) $p < .001$	Two-Factor Model
4. Bi-2 Factor vs Bi-single Factor	-787.87 (1) $p = 1$	Bi-factor with single general construct
5. Bi-2 Factor vs Correlated Factors	2111.90 (48) $p < .001$	Bi-factor with two general factors
6. Bi-single Factor vs Correlated Factors	798.38 (47) $p < .001$	Bi-factor with single general construct
7. Bi-2 Factor vs. Two-Factor	1561.9 (75) $p < .001$	Bi-factor with two general factors
8. Bi-single Factor vs Single Factor	4225.6 (75) $p < .001$	Bi-factor with single general construct

CHAPTER FIVE: DISCUSSION

This study examined the structure of marital satisfaction using Confirmatory Factor Analysis (CFA) in an effort to clarify what constitutes this construct, and thereby address existing conceptualization and measurement confusion. Despite its popularity in research over the last several decades, marital satisfaction continues to be vaguely defined and is often operationalized differently depending on the researcher's preferences (Fincham & Beach, 2010; Mattson, Rogge, Johnson, Davidson, & Fincham, 2013). This is most clearly reflected in the number and variety of questions used to measure marital satisfaction, which range from a single question asking how satisfied the respondent is with his or her marriage to multidimensional scales that address a host of relational concepts including communication patterns, shared activities, conflict, positive and negative feelings, sexual satisfaction, and level of agreement in values. What type of measure is used often depends on whether the researcher subscribes to an individual feelings view of marital satisfaction, reflected in items directly measuring feelings of satisfaction or happiness in one's relationship, or an adjustment view of marital satisfaction, reflected in items that measure more tangential relational constructs like communication and level of agreement that are assumed to underlie marital satisfaction (Fincham & Rogge, 2010; Glenn, 1998). Recent trends in measuring marital satisfaction have encouraged the use of multidimensional measures of marital satisfaction that often combine these two views over unidimensional measures (Fincham & Beach, 2010; Funk & Rogge, 2007; Mattson, Paldino, & Johnson, 2007; Mattson et al., 2013). This study has attempted to resolve some of the ambiguity in how this construct is measured by examining possible structural models of marital satisfaction stemming from these theoretical conceptualizations of marital satisfaction.

Dimensionality of Marital Satisfaction

The results of this study indicated that, when analyzed as a simple one- or two-factor construct, marital satisfaction was better conceptualized as a two-factor model, adjustment and individual feelings, than a one-factor model. Although this confirms previous literature demonstrating that marital satisfaction is best conceived of as a multidimensional model containing items that are traditionally adjustment oriented and others that are feelings oriented (Funk & Rogge, 2007; Mattson et al., 2007; Mattson et al., 2013), neither model fit the data well. This indicated that these models were not consistent with the observed data.

Bi-factor models were then analyzed in order to test the hypothesis that the relational constructs in this study share a common source of variance, the variance associated with marital satisfaction, while remaining distinct constructs from marital satisfaction. As evidenced in the literature, various measures of marital satisfaction have been found to be correlated with each of the relational constructs in this study: dominance (Frye & Karney, 2006; Katz, Kuffel, & Coblenz, 2002; Linder, Crick, & Collins, 2002), constraint commitment (Kelmer, Rhoades, Stanley, & Markman, 2013; Rhoades, Stanley, & Markman, 2010), dedication commitment (Schoebi, Karney, & Bradbury, 2012; Stanley, Whitton, Sadberry, Clements, & Markman, 2006; Wieselquist, Rusbult, Foster, & Agnew, 1999), couple bondedness (Crawford, Houts, Huston, & George, 2002; Miller, 1976; Orthner & Mancini, 1990; Nock & Wilcox, 2006; Zuo, 1992), positive orientation and negative communication (Fincham & Rogge, 2010; Mattson et al., 2007; Mattson et al., 2013), and satisficing (Love, 2009). Based on these findings from prior research, hypothesis two was developed in order to examine whether marital satisfaction might be a common denominator across these constructs in that marital satisfaction would account for some

variance in each item while the relational construct to which the item belongs would account for other variance.

Findings from this study demonstrated that both bi-factor models fit the data better than their simpler single or two-factor counterparts and the correlated factors model. This indicated that marital satisfaction is best conceptualized as a common factor that accounts for unique variance across items while remaining separate from other relational constructs. Unlike in the simple one- and two- construct models, and contrary to predictions, the bi-factor model with two general constructs fit worse than the bi-factor model with a single general construct. This finding contradicts popular conceptualizations of marital satisfaction as either adjustment or individual feelings such as that presented by Glenn (1998). Rather, this finding tends to support researchers using measures of marital satisfaction that combine these two types of items such as the Marital Adjustment Test (MAT; Locke & Wallace, 1959) and the Dyadic Adjustment Scale (DAS; Spanier, 1976). Although both of these measures have adjustment in the title, individual feelings items such as “which best describes the degree of happiness, everything considered, of your present marriage” are included in both scales. Additionally, the lack of support for a division between adjustment and individual feelings in this study adds credence to the possibility that other distinctions, such as that between positive and negative views toward the relationship encouraged by Fincham and Linfield (1997), Funk and Rogge (2007), and Mattson et al. (2007), may be more meaningful.

Furthermore, in addition to exploring the presence of internal divisions in marital satisfaction, using a bi-factor model of marital satisfaction can help clarify the relationship between marital satisfaction and other relational constructs. Previous research often describes a reciprocal relationship between marital satisfaction and other relational constructs (see Giblin,

1994 for a brief review). Viewing the structure of marital satisfaction as a bi-factor model can help to explain these reciprocal relationships. For example, Schoebi et al. (2012), in an effort parse out the shared variance between relationship satisfaction and dedication commitment, separated dedication commitment into two subcategories: 1) one's inclination to engage in maintenance behaviors and, 2) desire for the relationship to persist long-term. The authors found that, once relationship satisfaction was added to their model, desire for the relationship to persist became non-significant in predicting relational outcomes. A bi-factor view of marital satisfaction could explain this finding by demonstrating that a portion of variance in dedication items is consistent with a general marital satisfaction construct while other shared variance among the items is consistent with a dedication construct. In Schoebi et al.'s study, items that made up subcategory two, desire for the relationship to persist, were likely strong indicators of relationship satisfaction. When separated from other dedication items, the strength of the shared variance associated with dedication was lower than that shared with relationship satisfaction, resulting in these items no longer contributing unique information to the model.

Similar changes in the associations between relational constructs were found in the final bi-factor model. Several correlations between relational constructs were smaller or reduced to non-significance, such as those between dominance and both commitment constructs, once a general common factor was introduced. This finding echoes the results of Schoebi et al.'s (2012) study and provides an explanation for why these constructs may correlate highly outside of research that accounts for marital satisfaction as an underlying common factor. Thus, a bi-factor structure of marital satisfaction can help researchers begin to examine and explain the often strong overlap between marital satisfaction and other relational constructs.

Non-significant Findings

In addition to the significant results from this study, the non-significant findings also add new information that will be valuable for researchers as well as clinicians. In the final model, all four Satisficing items failed to load significantly onto the Satisficing construct. As a relational construct, Satisficing was found to be no different than marital satisfaction. This supports Love's (2009) finding that satisfaction and satisficing were associated. Unfortunately, this finding also indicates researchers should use caution when employing this construct in studies where marital satisfaction is also being examined given the shared variance between these constructs. Based on these findings, satisficing items would be best included in measures of marital satisfaction rather than as a distinct scale from marital satisfaction. Clinicians wishing to use these items may continue to gain valuable insight as these items were all significant markers of marital satisfaction, though these are by no means the only markers that should be examined.

Six other items also failed to load significantly on their designated relational construct when a single general construct of marital satisfaction was added to the model. Like the satisficing items, these items were better markers of marital satisfaction than the relational construct from which they originated. These items were also typically the items that loaded the strongest on the marital satisfaction construct. In particular, "How often you wonder about whether your partner loves you very much," "Both of us have a very good heart," "Feel trapped or pressured to continue relationship," and "Think there is someone better out there" were among the highest loading items with a range of 0.80 – 0.87. Clinicians may find these items to represent important areas to assess when working with married couples as these items represent due to their ties to several therapeutic models for working with couples. For example, clinicians using Epstein and Baucom's (2002) cognitive behavioral approach can view believing that one's

partner loves you very much, perceiving both to have a good heart, feeling trapped, and thinking a lot about the bad times in the relationship as attributions one might make about a relationship that can either reinforce one's positive schema that his/her relationship is satisfying or disrupt one's expectations for a satisfying relationship. As these attributions are strong contributors to marital satisfaction, helping clients become aware of these and using these to uncover unmet expectations or violated standards will be an important piece of treatment. Additionally, these findings illustrate the need for thorough psychometric examination when developing new measures for constructs to help ensure that they are measuring the intended construct.

Implications for Clinicians and Future Researchers

This study has demonstrated that marital satisfaction is a complex construct that accounts for many of the associations between other relational constructs. Thus, there are many facets to take into account when assessing marital satisfaction. Asking clients how satisfied they are with their relationship gives a general indication of satisfaction, but asking about their perceptions on a number of items associated with other relational constructs provides a thicker, more accurate description of satisfaction with the marriage. As such, a new definition of marital satisfaction is proposed in which marital satisfaction refers to the perception of how well one's marriage is performing on a number of interpersonal and intrapersonal domains compared to one's own expectations for performance. Interpersonal domains found to be significant pieces of marital satisfaction were communication, dominance/aggression in the relationship, positive orientation, and couple bondedness. Intrapersonal domains were felt constraints to leaving the relationship, dedication to the relationship, and overall satisfaction with the relationship. Probing these areas gives clinicians working with couples a better idea of what should be addressed in therapy and

what goals the couple may wish to work towards to improve their overall satisfaction in the relationship.

Additionally, conceptualizing marital satisfaction as a broad, single construct consisting of many facets of relationships has implications for how research in this area might proceed. Research has often used separate relational constructs to predict one another (e.g. Dew, 2007; Fincham & Rogge, 2010; Johnson et al., 2005; Kingston & Nock, 1987; Mattson et al., 2007; Mattson et al., 2013; Schoebi et al., 2012); however, if these constructs have shared variance with a general factor that is not being measured, results will likely be inflated. In light of this finding and the fact that all but one item loaded significantly onto the general marital satisfaction construct, researchers should use caution when using these relational constructs in research to predict or show relationships with marital satisfaction. Items that loaded highly on marital satisfaction or no longer loaded onto their original relational construct may create redundancy when looking at associations between constructs containing these items and marital satisfaction, and, thus, result in inflated correlations and predictive significance. This is an important consideration for future research wishing to examine multiple relational constructs, as relationships between these constructs may be better accounted for marital satisfaction than a true association between constructs.

Using a unified construct of marital satisfaction may also better predict important outcomes such as health or quality of life and may be a better outcome measure for treatment interventions since the unified construct represents a broader definition of satisfaction that may apply to more people. Future research, therefore, should include this broader conceptualization of marital satisfaction when examining the role of this construct in treatment and other important outcomes.

Limitations and Future Directions

As will all research studies, there were several limitations that should be noted. First, this study used a cross-sectional sampling design. As such, this study can only make conclusions about the structure of marital satisfaction at a single point in time. Previous literature has suggested that marital satisfaction changes over time (Glenn, 1998; VanLaningham, 2001), and so, too, might the structure as some concerns become increasingly important, for example the entrance of children to the family system, while other concerns fade over time, such as parenting when children have grown. A longitudinal design measuring overall relationship satisfaction and each of these relational constructs is needed to examine the stability of this construct over time.

Secondly, data for this study came from individuals in relationships rather than dyadic pairs of marital partners. As these are all relational constructs, the degree to which partners match or differ on these perceptions, could itself be an indicator of the state of their relationship and a piece that this study was unable to include. Jackson, Miller, Oka, and Henry (2014) conducted a meta-analysis in which marital satisfaction was examined in both dyadic and non-dyadic data. They found that there were no gender differences in marital satisfaction when husbands and wives in the same relationship were compared versus significantly different reports of marital satisfaction between genders in non-dyadic data. Future studies, therefore, should consider focusing more on obtaining dyadic data when looking at marital satisfaction as this may lead to a better understanding of what influences couple satisfaction rather than individual satisfaction within a relationship.

Thirdly, this sample was drawn entirely from the state of Texas. Although a large, fairly representative sample of the Texas population was obtained, regional and cultural differences in conceptualizations of marriage and partner perceptions may impact the findings of this study and

reduce generalizability to the larger population. A recent Gallup poll from 2013 that asked about state variations in level of religiosity found that Texas was the 12th ranked state in regards to number of respondents who reported being very religious (Newport, 2013). Aside from Utah, all the states ranking highest in religiosity were in the south. Partners in this region may, therefore, hold more conservative views of marriage that may impact their notion of satisfaction in marriage. For instance, previous studies have shown that religion and religious consensus between spouses are important factors in individuals' perceptions of marital satisfaction (Brimhall & Butler, 2007; Call & Heaton, 1997; Mahoney et al., 1999; Robinson, 1994; Robinson & Blanton, 1993). Generally, religiosity level and the degree to which couples match on religiosity have been found to be positively associated with higher marital satisfaction (Brimhall & Butler, 2007; Call & Heaton, 1997; Mahoney et al., 1999). The relative magnitude of these relationships may vary by region according to the importance of religiosity in each region. In regions where religiosity is low, religion may not be an important element of the structure of marital satisfaction. Future studies, therefore, could examine possible regional variations in marital satisfaction and the impact, if any, of these differences on the structure of marital satisfaction.

Finally, this study was unable to examine possible predictive relationships between the finalized structure of marital satisfaction and other important relationship variables such as length of the relationship, presence of children in the home, and whether spouses had been married previously. Each of these variables has been shown to have a significant relationship to spouse's perceptions of marital satisfaction (Gagnon, Hersen, Kabacoff, & Van Hasselt, 1999; Glenn, 1998; Kurdek, 1998; Leonard & Roberts, 1998; Rosen-Grandon, Myers, & Hattie, 2004; VanLaningham, Johnson, & Amato, 2001; Vemer, Coleman, Ganong, & Cooper, 1989).

Unfortunately, when these items were added to a structural equation model predicting marital satisfaction based on the previously described bi-factor structure, the model was unable to reach convergence. Several issues arose with the nature of the data being ordered rather than continuous and the relatively high correlations between constructs. Future studies may wish to include continuous measures and collapse constructs when correlations are very high in order to avoid some of these concerns.

Summary

This current study has demonstrated that marital satisfaction is a complex construct that has a broad definition and underlies many of the relationships found between existing relational constructs. The findings from this study have contributed new information regarding the structural representation of marital satisfaction and its relationship to other relational constructs. Marital satisfaction was best represented as a bi-factor model in which all items loaded onto single general construct as well as their respective relational constructs. This finding provides confirmation that both conceptualizations of marital satisfaction as adjustment and individual feelings are important to the overall construct of marital satisfaction. The bi-factor model also illustrates that most relational constructs are also distinct from marital satisfaction, meaning that items continued to load significantly on these relational constructs after marital satisfaction accounted for the shared variance across items. Both adjustment and feelings items, therefore, are necessary to the measurement of marital satisfaction, though separating items onto adjustment and feelings factors of marital satisfaction was not a significant improvement to the single general construct model. One relational construct, satisficing, was found to be better understood as a representation of marital satisfaction rather than a distinct construct, while other relationships between constructs were reduced to non-significance when marital satisfaction was

introduced as a representation of shared variance across all the items measured in this study. Future research, therefore, should account for variance from a general marital satisfaction construct when looking at relationships between other relational constructs.

Finally, the current study has raised concerns about the incomplete measurement of marital satisfaction both in the literature and in clinical work. Adopting a more complex view of the constituents of marital satisfaction may bring more clarity and a richer understanding of this important construct and its relationship to several health and happiness outcomes.

REFERENCES

- Brimhall, A. S., & Butler, M. H. (2007). Intrinsic vs. extrinsic religious motivation and the marital relationship. *The American Journal of Family Therapy, 35*, 235–249.
<http://doi.org/10.1080/01926180600814684>
- Call, V. A. and Heaton, T. B. (1997). Religious influence on marital stability. *Journal for the Scientific Study of Religion, 36*, 382–392.
- Crawford, D. W., Houts, R. M., Huston, T. L., & George, L. J. (2002). Compatibility, leisure, and satisfaction in marital relationships. *Journal of Marriage and Family, 64*, 433–449.
- Dew, J. P. (2007). *Do you have the time? Changes in and implications of spouses' time together* (Order No. 3266098). Available from ProQuest Dissertations & Theses Global.
- Fincham, F. D., & Beach, S. R. H. (2010). Marriage in the new millennium: A decade in review. *Journal of Marriage and Family, 72*, 630–649. doi:10.1111/j.1741-3737.2010.00722.x
- Fincham, F. D., & Linfield, K. J. (1997). A new look at marital quality: Can spouses feel positive and negative about their marriages? *Journal of Family Psychology, 11*, 489-502.
- Fincham, F. D., & Rogge, R. (2010). Understanding relationship quality: Theoretical challenges and new tools for assessment. *Journal of Family Theory & Review, 2*, 227–242.
doi:10.1111/j.1756-2589.2010.00059.x
- Frye, N. E., & Karney, B. R. (2006). The context of aggressive behavior in marriage: A longitudinal study of newlyweds. *Journal of Family Psychology, 20*, 12-20.
- Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology, 21*, 572–583. doi:10.1037/0893-3200.21.4.572

- Gagnon, M. D., Hersen, M., Kabacoff, R. I., & Van Hasselt, V. B. (1999). Interpersonal and psychological correlates of marital dissatisfaction in late life: a review. *Clinical Psychology Review, 19*, 359–378.
- Giblin, P. (1994). Marital satisfaction. *The Family Journal, 2*(1), 48–50.
<http://doi.org/10.1177/1066480794021008>
- Glenn, N. D. (1998). The course of marital success and failure in five American 10-year marriage cohorts. *Journal of Marriage and the Family, 60*, 569–576.
- Jackson, J. B., Miller, R. B., Oka, M., & Henry, R. G. (2014). Gender differences in marital satisfaction: A meta-analysis. *Journal of Marriage and Family, 76*, 105–129.
doi:10.1111/jomf.12077
- Johnson, M. D., Cohan, C. L., Davila, J., Lawrence, E., Rogge, R. D., Karney, B. R., ... Bradbury, T. N. (2005). Problem-solving skills and affective expressions as predictors of change in marital satisfaction. *Journal of Consulting and Clinical Psychology, 73*, 15-27.
- Katz, J., Kuffel, S. W., & Coblenz, A. (2002). Are There Gender Differences in Sustaining Dating Violence? An Examination of Frequency, Severity, and Relationship Satisfaction. *Journal of Family Violence, 17*, 247–271. doi:10.1023/A:1016005312091
- Kelmer, G., Rhoades, G. K., Stanley, S., & Markman, H. J. (2013). Relationship Quality, Commitment, and Stability in Long-Distance Relationships. *Family Process, 52*, 257–270. doi:10.1111/j.1545-5300.2012.01418.x
- Kingston, P. W., & Nock, S. L. (1987). Time together among dual-earner couples. *American Sociological Review, 52*, 391–400.

- Kurdek, L. A. (1998). The nature and predictors of the trajectory of change in marital quality over the first 4 years of marriage for first-married husbands and wives. *Journal of Family Psychology, 12*, 494-510.
- Leonard, K. E., & Roberts, L. J. (1998). Marital aggression, quality, and stability in the first year of marriage: Findings from the Buffalo Newlywed Study. In T. N. Bradbury & R. L. Weiss (Eds.), *The Developmental Course of Marital Dysfunction* (pp. 44–73). Cambridge University Press.
- Linder, J. R., Crick, N. R., & Collins, W. A. (2002). Relational aggression and victimization in young adults' romantic relationships: Associations with perceptions of parent, peer, and romantic relationship quality. *Social Development, 11*, 69–86. doi:10.1111/1467-9507.00187
- Locke, H. J., & Wallace, K. M. (1959). Short marital-adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living, 21*, 251–255.
- Love, R. W. B. (2009). *Maximizing and relationships*. University of Texas. Retrieved from <http://repositories.lib.utexas.edu/bitstream/handle/2152/ETD-UT-2009-05-171/LOVE-MASTERS-REPORT.pdf?sequence=1>
- Mahoney, A., Pargament, K. I., Jewell, T., Swank, A. B., Scott Emery, E. E. and Rye, M. (1999). Marriage and the spiritual realm: The role of proximal and distal religious constructs in marital functioning. *Journal of Family Psychology, 13*, 321–338.
- Mattson, R. E., Paldino, D., & Johnson, M. D. (2007). The increased construct validity and clinical utility of assessing relationship quality using separate positive and negative dimensions. *Psychological Assessment, 19*, 146-151.

- Mattson, R. E., Rogge, R. D., Johnson, M. D., Davidson, E. K. B., & Fincham, F. D. (2013). The positive and negative semantic dimensions of relationship satisfaction. *Personal Relationships, 20*, 328–355. doi:10.1111/j.1475-6811.2012.01412.x
- Miller, B. C. (1976). A multivariate developmental model of marital satisfaction. *Journal of Marriage and the Family, 38*, 643-657.
- Newport, F. (2014, February 3). *Mississippi most religious state, Vermont least religious: Average religiousness of states continues to range widely*. Retrieved from: http://www.gallup.com/poll/167267/mississippi-religious-vermont-least-religious-state.aspx?utm_source=religious%20state&utm_medium=search&utm_campaign=tiles
- Nock, S. L., & Wilcox, W. B. (2006). What's love got to do with it? Equality, equity, commitment and women's marital quality. *Social Forces, 84*, 1321–1345. doi:10.1353/sof.2006.0076
- Orthner, D. K., & Mancini, J. A. (1990). Leisure impacts on family interaction and cohesion. *Journal of Leisure Research, 22*, 125-137.
- Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2010). Should I stay or should I go? Predicting dating relationship stability from four aspects of commitment. *Journal of Family Psychology, 24*, 543–550. doi:10.1037/a0021008
- Robinson, L. C. and Blanton, P. W. (1993). Marital strengths in enduring marriages. *Family Relations, 42*, 38–45.
- Robinson, L. C. (1994). Religious orientation in enduring marriage: An exploratory study. *Review of Religious Research, 35*, 207–218. <http://doi.org/10.2307/3511889>
- Rosen-Grandon, J. R., Myers, J. E., & Hattie, J. A. (2004). The relationship between marital characteristics, marital interaction processes, and marital satisfaction. *Journal of*

Counseling & Development, 82, 58–68. <http://doi.org/10.1002/j.1556-6678.2004.tb00286.x>

Schoebi, D., Karney, B. R., & Bradhury, T. N. (2012). Stability and change in the first 10 years of marriage: Does commitment confer benefits beyond the effects of satisfaction?

Journal of Personality & Social Psychology, 102, 729–742. doi:10.1037/a0026290

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, 38, 15–28.

Stanley, S. M., Whitton, S. W., Sadberry, S. L., Clements, M. L., & Markman, H. J. (2006). Sacrifice as a predictor of marital outcomes. *Family Process*, 45, 289–303.

VanLaningham, J., Johnson, D. R., & Amato, P. (2001). Marital happiness, marital duration, and the u-shaped curve: Evidence from a five-wave panel study. *Social Forces*, 79, 1313–1341.

Vemer, E., Coleman, M., Ganong, L. H., & Cooper, H. (1989). Marital satisfaction in remarriage: A meta-analysis. *Journal of Marriage and Family*, 51, 713–725.

<http://doi.org/10.2307/352170>

Wieselquist, J., Rusbult, C. E., Foster, C. A., & Agnew, C. R. (1999). Commitment, pro-relationship behavior, and trust in close relationships. *Journal of Personality and Social Psychology*, 77, 942–966. doi:10.1037/0022-3514.77.5.942

Zuo, J. (1992). The reciprocal relationship between marital interaction and marital happiness: A three-wave study. *Journal of Marriage and the Family*, 54, 870–878.

