THE ROLE OF SEXUAL SATISFACTION IN COUPLE RELATIONSHIP SATISFACTION, INDIVIDUAL STRESS, AND QUALITY OF LIFE

by

Mae K. Basow, M.A.

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Denise Hien, Ph.D.

Date	Chair of Examining Committee

MaureenO'Connor,Ph.D.

Date	Executive Officer

Paul Wachtel, Ph.D.

Mary Kim Brewster, Ph.D.

Diana Punales, Ph.D.

Steve Tuber, Ph.D.

Supervisory Committee

The City University of New York

ABSTRACT

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Mae K. Basow, M.A.

Advisor: Denise Hien, Ph.D.

One variable frequently found positively associated with relationship satisfaction is sexual satisfaction. In turn, relationship satisfaction is positively associated with both reduced individual stress of each partner and with subjective quality of life. However, little research has examined the relationship among all of these variables. This study examined the possible gender differences in the associations among relationship satisfaction, sexual satisfaction, individual stress, and quality of life. Additionally, this study explored whether the frequency of sex impacts the association among relationship satisfaction and well-being (individual stress and quality of life) for men, but not for women. There were some gender differences in the findings. Specifically, results showed that for men, sexual satisfaction and sexual conflicts were associated with their relationship satisfaction, stress, and quality of life. However, for women, sexual satisfaction and sexual conflicts were not associated with their relationship satisfaction, stress, and quality of life. The results also demonstrated that for both men and women, sexual frequency was not associated with their relationship satisfaction, quality of life, and stress.

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I would like to dedicate this dissertation to my boomoenhim. How proud they would have been.

CONTENTS

List of Tables and Figures

CHAPTER 1

Introduction

Since the 1970s, the subject of couple or marital functioning[1] has emerged as an area of intensive empirical research in an effort to understand the factors that lead to marital satisfaction and dissatisfaction. Researchers have attempted to understand the means by which relationships form, which qualities yield stable relationships, and which qualities enhance or reduce relationship satisfaction, or lead to relationship dissolution (Rosen-Grandon, Myers, & Hattie, 2004; Bradbury, Fincham, & Beach, 2000; Gottman, Coan, Carrere, & Swanson, 1998).

The more recent research in couple satisfaction has challenged previously held opinions. For instance, the trajectory of marital satisfaction was once considered to follow a U-shaped curve, with high initial satisfaction, a lowest point of satisfaction at the mid-point of the marital union, and rebound toward marital satisfaction thereafter (Vaillant & Vaillant, 1993). Instead, for most couples it was found that marital satisfaction drops significantly within the first ten years of marriage and then drops more slowly in the ensuing decades (Glenn, 1998; Vaillant & Vaillant, 1993). These latter results were further corroborated by Umberson, Williams, Powers, Chen, and Campbell's (2005) study. The researchers found that over time, negative marital experiences tend to increase, while positive marital experiences tend to decrease. Additionally, other factors, such as having children**,** were found to have an impact on the marital relationship. In particular, several studies documented that after the birth of the first child, two things occur--a decline of couple pleasure, and an increase in marital conflicts (Claxton & Perry-Jenkins, 2008; Gottman & Notarius, 2000; Umberson, Williams, Powers, Chen, et al., 2005). These findings

[1] The terms "couple satisfaction," "relationship satisfaction," and "marital satisfaction" will be used interchangeably to refer to the satisfaction experienced by couples committed to a long-term relationship. Some of the findings presented from the literature were obtained from pre-marital couples and others from married couples, or from couples studied longitudinally beginning before marriage, and the present study's sample includes both pre-marital and early-stage married couples.

highlight the importance of understanding those variables that contribute to marital satisfaction and discord, as comprehending them may provide a way to increase relationship satisfaction in committed couples.

Indeed, researchers have identified that marital dissatisfaction is a contributing factor to marital dissolution. In the most recent statistical survey (2007) conducted by the Centers for Disease Control and Prevention (CDC), in the United States, approximately 36% of all marriages ended in divorce (http://www.cdc.gov/nchs/nvss/marriage_divorce_tables.htm). While there has been a slow decline in divorce rates since 2000, a large number of couples are staying in unsatisfying relationships (Davila & Bradbury, 2001), which may negatively contribute to the mental and emotional well-being of the individual. Moreover, divorces have negative socioeconomic repercussions on society (Kitson & Morgan, 1990). The costs related to judicial proceedings and the splitting of the financial resources from the divorce subsequently place a heavier financial burden on the society.

Additionally, an individual's mental health is strongly impacted by marital dissolution and marital discord. Psychopathology such as anxiety, depression, alcohol abuse, and substance abuse has been correlated with marital distress (Gottman & Notarius, 2000; Humbad, Donnellan, Iacono, & Burt, 2010). Beach, Katz, Kim, and Brody (2003) identified depression as a frequent consequence of marital distress among both men and women, although the severity of the depression seemed to vary between the sexes. In particular, women who were unhappily married experienced more depressive symptoms than women who were either happily married or unmarried (Aneshensel, 1986). On the other hand, men reported significantly more suicidal ideation than women following a divorce (Zeiss, Zeiss, & Johnson, 1980). There has been evidence of strong negative consequences such as increased rates of automobile accidents,

increased incidence of physical illness, and increased rate of mortality from diseases and suicide for both men and women after a divorce (Gottman, 1998).

Furthermore, poorer physical health and poorer immune function have been associated with marital distress. As demonstrated in controlled experiments, poorer physical health and poor immune functioning resulted from high conflict interactions (Kiecolt-Glaser, Fisher, Ogrocki, Stout, & Speicher, et al., 1987; Kiecolt-Glaser, Malarkey, Chee, Newton et al., 1993; Robles & Kiecolt-Glaser, 2003). Studies showed that marital distress affected both the physical and emotional health of both partners (Beach, Katz, Kim & Brody, 2003; Kiecolt-Glaser & Newton, 2001). According to Kiecolt-Glaser and Newton's findings (2001), maritally-distressed individuals experienced more distress than unmarried people and, on average, unmarried people were happier than unhappily married individuals.

The wellness of the individual, family and society are all affected by marital satisfaction (Bradbury, Fincham, & Beach, 2000). A large body of literature documents the negative effects of marital conflict on children such as depression, withdrawal, poor social competence, poor academic performance, and other behaviorally-related problems (Amato & Keith, 1991; Davies & Cummings, 1994; Gottman, 1998; Repetti, Taylor, & Seeman, 2002). Marital conflict has also been shown to affect work performance in the maritally distressed individual, resulting in reduced energy for work, distractedness, and missed days on the job (Forthofer, Markman, Cox, Stanley, & Kessler, 1996).

However, despite the deleterious effects of divorce and the negative effects of dissatisfied relationships on the individual's emotional and mental well-being, research has also found that marriage may have some positive impact on the individual's well-being. Specifically, marital status seems to have some protective effects on general health, whereas unmarried persons are at

greater risk of mortality than married persons, with this association being particularly strong for men (Graham, Christian, & Kiecolt-Glaser, 2006).

These psychological, emotional, and socioeconomic sequelae of divorce and relationship dissatisfaction are not promising for couples and add a greater sense of urgency to uncover important variables that might increase relationship satisfaction and keep the relationship intact. Although much effort has been expended on research with couples in an effort to identify which variables contribute toward relationship satisfaction or dissatisfaction and the correlation between relationship satisfaction and dissolution, clearly more research is needed to understand this very complex couple dynamic.

If particular variables are found to strengthen relationship satisfaction, utilizing those variables to increase satisfaction in the relationship could have a positive overall effect on the individual and the couple's well-being. Research has demonstrated that when couples are able to develop particular relationship enhancement, communication, and problem-solving skills to manage marital conflicts/dissatisfactions, they can better resolve these issues and strengthen their relationship (Markman, Floyd, Stanley, & Storaasli, 1988). For further comprehensive review, see Silliman, Stanley, Markman, and Jordan (2002).

The literature review that follows will establish the focus, significance, and empirical support for the study. The focus of the current study will be to examine the associations between multiple variables involved in relationship satisfaction. Namely, the associations among relationship satisfaction, sexual satisfaction, quality of life and stress will be examined. Additionally**,** the impact of sexual frequency between genders will be studied.

The literature review will begin with the theory of sexuality, love, and sexual desire. Next, a conceptualization of relationship and sexual satisfaction will follow. Subsequently, the

literature review will summarize the studies on relationship and sexual satisfaction, including the role of sexual frequency and the gender differences in sexual frequency. The definitions and conceptualization of stress in intimate relationships will follow. The literature review will then address the research demonstrating associations between individual stress and couple relationship, and stress and sexual satisfaction will be examined. The literature review will conclude with a restatement of the purpose and rationale for the current study and statement of the proposed hypotheses.

CHAPTER 2

Literature Review and Study Purposes

Theory of Sexuality and Love

According to Freud (1962), sexual development occurs in stages. As an infant, life experiences are learned through the various sensory interactions and sexual development begins with the pleasure that the child experiences through the oral gratification of nourishment. Freud asserted that sexual instinct is biologically driven, akin to hunger, and must be periodically satiated or appeased to decrease tension and frustration. But, unlike hunger, libido is directed (sexual aim) towards a particular person, the object of the individual's desire. The goal of the sexual aim is copulation with a sexual object. The striving of the copulation is to achieve a physiological decrease of sexual tension and a temporary extinction of the sexual instinct.

Freud explained that these intense physiological longings are coupled with a psychological overvaluation of the sexual object, in which the individual becomes intellectually infatuated with the sexual object's perceived perfections (Freud, 1962). In other words, there is a complete cognitive and emotional preoccupation with the love object that accompanies the sexual longings. The sexual and intellectual idealizations are a symptom of the falling in love experience, where the individual both submits to love and becomes consumed by his/her love object.

Romantic Love, Sex, and Neurological Correlates

From Freud's theories of sexuality and love, one can glean that passionate love is a profound human experience involving an intense sensory, cognitive and affective experience with one's love object. Mitchell (2002) defined romance as a unique feeling state that elicits

emotions, imagination, and ideals in relationship to another individual. He added that romance blossoms in the context of love, which is fueled with erotic feelings. While agreeing with Freud's assertion that instinctual drive is at the helm of pursuit for love and sex, Mitchell also provided an existential explanation. He stated that people seek romance because it offers their lives meaning and that romance infuses life with vitality and excitement that can only be co-constructed with another person.

Fisher (2004), on the other hand, provided a neurological explanation about love and romance. She asserted that the neurological systems that are involved in love and romance are associated with the emotion-motivation system for mating, reproduction, and parenting (lust, attraction, and attachment are also a part of this system). The attraction system is associated with an increased level of dopamine and norepinephrine and characterized by increased energy, focused attention on the object, and feelings of excitement (Fisher, Aron, Mashek, Li, & Brown, 1998). These neurological networks allow the individual to focus his/her courtship energy onto one person as opposed to holding feelings of lust that enable the individual to be less discriminatory in terms of mate selection.

Additionally, Fisher et al. (1998) explained that the affective state (feelings of calm, security) associated with the attachment system is due to elevated levels of oxytocin and vasopressin. Just as sexual union between the couple is utilized to meet evolutionary reproductive purposes, the authors posited that the attachment bond between a man and a woman is also aimed at helping the couple stay together to complete parenting-specific responsibilities.

However, romance is finite and comes to an end. As Mitchell (2002) wrote, romance is driven by sexuality, and the primitive nature of sexuality does not go well with other more tame aspects of romance such as respect and admiration. Romance thrives on the novelty and the

unknown, but how can this be continually created in a long-term relationship so that two people will want to stay together happily? While having new sexual partners may be exciting and gratifying on one level, it is also at the cost of endangering an attachment that provides comfort, safety, and security. Passion and commitment are two dialectical forces, and, as Mitchell said, people want both the security of the familiar as well as the adventure of the newness and the unknown.

Both researchers and authors alike have attempted to define, distill, and explain the emotional process involved in love and romance. Most would agree that love, sexual intimacy, and attachment are three crucial elements involved in romance. However, trying to find the harmony and the appropriate dose between these three elements has gained much scientific attention as research continues to demonstrate that unhappiness in couples results in relationship dissolution, which has a severe negative ripple effect on the individual, the family, and the society. According to Fisher's (2004) study of the brain in passionate love, these feelings last up to seven months. Time is ticking for these committed couples, so what might be the variables that could help them to stay in love and together?

Sexual Desire

One element that might keep a couple together is sexual desire. According to Regan and Atkins (2006), sexual desire plays a crucial role in romantic attraction and relationship development and relates to sexual satisfaction, relationship satisfaction, and sexual frequency. As Mitchell (2002) wrote, "romance is filled with longing; intense desire," and in accordance with the impact of sexual desire on sexual satisfaction and relationship satisfaction that is being

examined in the current study, a brief review of the literature as it relates to the sexual intimacy will be discussed.

Sexual desire can be defined as a motivational state involving a wish, need, and drive to engage with the object (person) of one's sexual desire and is often a prelude to sexual activity (cited by Regan & Atkins, 2006). Sexual desire is understood as being different from physiological sexual arousal, subjective sexual arousal, sexual activity, and sexual feeling states related to these responses. Similarly to the physical aspects of sexual functioning, sexual desire is affected by the individual's health and age. Specifically, both medical and mental illnesses and aging have been associated with lowered sexual desire. Additionally, there is ample empirical evidence that suggests that there are gender differences in sexual desire. Notably, men have reported higher sexual desire than women (Beutel, Stobel-Richter, & Brahler, 2007; Eplov, Giraldi, Davidsen, Garde, & Kamper-Jorgensen, 2007; Santilla et al., 2008).

Research by Regan and Atkins (2006) explored the gender differences and similarities pertaining to the intensity and the frequency of sexual desire. The participants included 335 men and 341 women with the mean age of 25 years. When overall sexual desire was assessed on a Likert-type scale with 1 = never experienced sexual desire to 9 = experience sexual desire extremely often, men reported having a higher overall level of sexual desire than women (men = 6.91, women = 5.63, $p < .001$). Furthermore, gender discrepancy was found with respect to the frequency of sexual desire. Specifically, when the participants were asked to estimate the frequency of their sexual desire, men's estimated sexual desire frequency (37 times per week), was significantly higher than women's estimated sexual desire frequency (8.67 times per week). These results support the notion that there are gender differences in the experience of the intensity and frequency of sexual desire.

In a Danish study that was published the following year, sexual desire was also examined (Eplov et al., 2007) with a wider age range. The study included 10,458 men and women between the ages of 16 to 67. To measure sexual desire, the participants were asked, "How often do you have sexual desire?" The response categories for frequencies included: often, occasionally, rarely, and never. The sexual desire frequency category of "often" (weighed in percentages) for the various age groups were as follows: 16-24 years: men = 72%, women = 50.1%; for 25-44 years: men = 68.8%, women = 34.7%; for 45-66 years: men = 45.1 %, women = 21.1%; for 67 and older: men = 14.3%, women = 3.7%. Consistent with Regan and Atkin's (2006) findings, they found that men reported higher sexual desire than women across the life span and they also found that sexual desire decreased with age.

Another study examining sexual desire across the life span was conducted in Germany with a representative sample of 2,341 men and women between the ages of 18-93 years (Beutel, Stobel-Richter, & Brahler, 2007). The participants were asked: "How often have you felt sexual desire during the past four weeks (very frequently = 1 to never = 5)?" and "How would you rate your degree of sexual desire during the past four weeks (very high = 1 to very low/not existent = 5)?" The lack of sexual desire was reported more frequently in women than in men, and correspondingly, men reported more frequent and intense sexual desire than women across the life span. Similar to the previous Danish study, the trajectory of sexual desire for both men and women decreased with age.

In summary, researchers have found that there are gender differences in the frequency and intensity of sexual desire between men and women, with men reporting a more frequent and more intense level of sexual desire than women across the life-span. These findings contribute towards understanding the role of sexual intimacy in couples as both sexual desire and sexual

intimacy expectancy have been shown to influence relationship satisfaction (Davies, Katz, Jackson, 1999).

Conceptualizing and Measuring Relationship Satisfaction

Researchers have offered many different conceptualizations related to relationship satisfaction, as the couple relationship is a complex dynamic involving intricate and nuanced interplay between two partners. First, characteristics associated with a happy marriage will be discussed as this will provide a foundation in understanding the key ingredients that have been found to be involved in a successful relationship.

Multiple studies have proposed different characteristics as being correlated with marital satisfaction. Although not all-inclusive, in Rosen-Grandon, Myers, and Hattie's (2004) review of studies examining marital satisfaction characteristics, scholars cited faithfulness, understanding, a good sex life, children, common interests, sharing household chores, having enough money, and sharing similar backgrounds as being the most important variables correlated with marital quality.

As stated earlier, couple relationship has been conceptualized and studied in myriad ways. One method has been through the observation and analysis of marital interactions. Observational method is a powerful way to study couples, as it allows the researchers to assess the cognitive and affective dyadic interactive process in a sequential manner. Specifically, a large body of observation-method research has identified patterns of communication and interactional behaviors that discriminate between happy and unhappy couples (Bradbury, Fincham, & Beach, 2007; Gottman & Notarius, 2000). From observation of couples early in

their committed relationship, researchers could predict which couples will be happy in the short- and long-term and which dyads will become distressed over time.

According to Gottman, Coan, Carrere, and Swanson (1998), the most reliable empirical evidence to distinguish between happy and unhappy marriages has been through the identification and analysis of negative affect reciprocity. They identified two models of negative affect reciprocity. The first model is *negative reciprocity in kind* in which anger from one spouse is met with anger from the other spouse. This model suggests that marriages deteriorate because the couple is unable to stop the reciprocation of negativity. A **s**econd model is *escalation of the low negative affect* (sadness, anger, whining, tension, or fear) *that is met with high negative affect* (belligerence, contempt, or defensiveness). This second model has been found through studying violent marriages, in which the violent husband responds to his wife's low negative affect with high negative affect. Thus, expression of negative feelings from one partner further escalates to a more aggressive reaction from his/her partner, exacerbating an already tense situation.

Additionally, Gottman et al. (1998) found that examining negative affect reciprocity in newly-wed couples reliably predicted their level of satisfaction and stability six years later. They also found that positive affect (such as humor, affection, and interest) that was used to de-escalate negative situations, predicted marital stability and marital happiness. On average, non-distressed couples showed 1.93 positive interactions per minute, whereas distressed couples exhibited 1.49 positive interactions per minute. Thus, in a given hour, happy couples had approximately 120 positive interactions and unhappy couples had approximately 90 positive interactions. This finding raises powerful questions about the number of positive interactions that couples need to sustain a happy relationship. How would the quality of each positive

interaction affect the frequency of positive interactions necessary to sustain a happy relationship? In the course of the committed relationship, these interactions would likely have more of a profound and accumulative impact on the romantic relationship.

In the year 1998, numerous aspects of marital process and satisfaction were reviewed by Gottman, Coan, Carrere, and Swanson. One of the areas of review examined the results from observations of conflict resolution in couples in which the number of negative interactions was deducted from the number of positive interactions. Results demonstrated that in 96% of these interactions, if the couple began with either a positive or negative interaction in the first few minutes of the observation, the interaction remained that way. This finding suggests that the manner in which the initial interaction between the partners unfolds may have a profound impact on determining the affective tone in the sequence of events that follow, more than at any other point in the interaction.

The focus on affective elements within the couple interactions has been an area of interest in couple research. Specifically, anger has been a variable that has received particular attention in couple research to assess whether it has a destructive power within the relationship. The Specific Affect Coding System (SPAFF) was used to identify and code affective expressions during conflict resolution discussions (Gottman et al., 1998). In studying the *negative affect reciprocity model*, in which negative interchange of feelings was tracked and monitored, the results demonstrated that neither the husband's nor the wife's anger was predictive of divorce. Expression of anger also did not delineate between happy, unhappy, or stable marriages, suggesting that this particular emotion alone did not deteriorate the relationship.

In contrast, the model based on the Four Horsemen of the Apocalypse (the sum of criticism, defensiveness, contempt, and stonewalling), of both the husband's and the wife's high

intensity negative affect did predict divorce (Gottman et al., 1998). However, the results showed that the negative affects did not have predictive power in discriminating between happy and unhappy stable marriages. Also, the wife's low intensity negative affect (the sum of whining, anger, sadness, domineering, disgust, fear, and stonewalling) did predict divorce, but, again, did not predictively delineate between happy and unhappy stable couples. These empirical data suggest that specific types of angry interactions can be destructive and have predictive value for divorce. Further research is warranted in this area, as studies have yielded contradictory results on the impact of negative affect on the couple relationship.

Another approach to understanding marital interactions has been through the study of empathy in marital relationships, which has been operationalized as the active listening model (Gottman et al., 1998). The active-listening model (also known as the validation model) is an interactive listener-speaker exchange, in which one partner (the speaker) begins with a verbalization of his/her concern and the other partner (the listener) paraphrases what he/she has heard and validates his/her partner's feelings. It is hypothesized that in happy marriages, conflict resolution occurs through exchanges in which the speaker and listener actively engage in a dialogue and the content and feelings of the partner expressing the concerns are validated. On the other hand, unstable, unhappy marriages are characterized by an absence of these exchanges. For a good summary and review of marital process and research, see, Bradbury, Fincham, and Beach (2000) and Gottman et al. (1998).

In addition to observational methods, virtually all studies of marital interactions also include scales that assess partners' subjective sense of relationship satisfaction. Numerous studies have examined only these subjective ratings of satisfaction in investigating the variables that affect relationship functioning and outcomes. The most frequently utilized instruments to

measure marital satisfaction have included Locke and Wallace's (1959) Marital Adjustment Test (psychometric attributes of the MAT will be discussed further in the Methods section as this instrument will be used in the present study) and Spanier's (1976) Dyadic Adjustment Scale (DAS). These self-report measures assess each individual partner's evaluation of marital quality and provide information regarding specific partner behaviors. Additionally, these self-report measures further illuminate general couple interactional patterns and further elicit information regarding couple functioning (Bradbury, Fincham, & Beach, 2000).

Conceptualizing and measuring relationship satisfaction in couples has been conducted in many ways. Dyadic interactions, such as negative affect reciprocity, validation model, and conflict resolution have been studied through observations to understand the complex interplay between the partners. Additionally, self-report measures have been utilized to further assess partners' subjective experience of the relationship and further clarify couples' behavioral interactional patterns. In the present study, self-report measures were used to study some of these complex couple dynamics.

Conceptualizing and Measuring Sexual Satisfaction

Sexual intimacy is an area that has gained much attention from couples researchers. There is ample evidence to demonstrate that sex is an integral component of most romantic relationships and an important element in marital quality and stability (Yabiku & Gager, 2009; Waite & Joyner, 2001). Research suggests that feelings such as love, security, pleasure, and a sense of connectedness are expressed, gained, and shared through sexual intimacy (Hazan & Shaver, 1994). Both scholars and the general public see the quality of their sexual life as being correlated with the quality of their romantic relationship (Byers, 2005).

Like sex and sexual intimacy, sexual satisfaction has been defined in numerous ways. For example, some studies define sexual satisfaction as a situation in which sexual desire and sexual frequency are consistent between partners (Santtila et al., 2008). Sexual satisfaction has also been described as being characterized by feelings of satisfaction in the quality of the sexual interaction**,** with an absence of sexual dysfunction (Bodenmann, Ledermann, & Bradbury, 2007). The variability in the definition of sexual satisfaction has resulted in an inconsistent generalizability of the outcomes in regard to sexual satisfaction.

Additionally, sexual satisfaction has been associated with multiple variables, such as relationship commitment. Some research has shown that there is a correlation between sexual satisfaction and the level of commitment in the relationship (Waite & Joyner, 2001). For example, studies revealed that both men and women who were married, in life-time relationships, and cohabiting, had a higher level of physical satisfaction from sex than single men and women in time-limited relationships who did not expect the relationship to last longer than several years. Unfortunately, it was difficult to assess whether the correlation was the result of level of commitment to the relationship or whether it was related to relationship status or both.

Clearly, variability exists in the ways that couple researchers define sexual intimacy as well as the ways in which sexual satisfaction is conceptualized. Research has provided ample evidence that confirms that sexual satisfaction is indeed an integral ingredient in the couple relationship.

Sexual Satisfaction and Relationship Satisfaction

A review of the extensive literature that has been conducted on the association between sexual satisfaction and relationship satisfaction confirms that these two variables are key

elements in a successful relationship. There is significant evidence from prior studies that demonstrates that sexual satisfaction is positively associated with relationship satisfaction and stability (Byers, 2005; Perlman & Abramson, 1982, Santtila et al., 2008; Sprecher, 2002; Waite & Joyner, 2001; Yabiku & Gager, 2009). Furthermore, higher sexual satisfaction has been correlated with greater relationship satisfaction (Byers, 2005; Morokoff & Gillilland, 1993), suggesting that the degree to which a partner is sexually satisfied may parallel the level of relational happiness with their partner. On the other hand, lack of sexual satisfaction has been associated with relationship dissatisfaction and relationship dissolution (Byers, 2005; Sprecher, 2002).

For example, Morokoff and Gillilland (1993) studied stress, sexual functioning, and marital satisfaction in 165 healthy married heterosexual individuals (92 men, 73 women, not married to each other). The median duration of marriage for men was 15-25 years and for women 10-14 years. The age range of the participants was between 21-84, with the mean age for men and women was 47.3 years and 40.6 years, respectively. In the sample, over half of the men and women had four or more years of college and approximately half of the participants were unemployed. Both men and women had a median number of 2 children. The data was collected from the self-report questionnaire packet which included the Life Experiences Survey (LES), Hassles Scale, and Locke-Wallace Marital Adjustment Test (MAT). LES assessed whether potentially stress inducing life events occurred within the last six months and within the last year. Hassles Scale measured demanding daily interactions with the environment which were experienced as irritating, frustrating, and distressing. MAT assessed partners' happiness in addition to perceived level of agreement on marital issues (e.g., finances, sex, etc.). The results

revealed a significant correlation between sexual satisfaction and marital satisfaction for both genders, although the correlation was stronger for men (r = .55) than for women (r = .41).

In a later study conducted by Waite and Joyner (2001), the correlation between emotional satisfaction and physical satisfaction in individuals in dating, cohabiting, and committed relationships was examined. Waite and Joyner used data from National Health and Social Life Survey (NHSLS) with a national sample of 3,432 adults, gathered in 1992, with ages ranging between 18 and 59. Emotional satisfaction was measured by the question: "*How emotionally satisfying do you find your relationship with your partner to be: extremely satisfying, very satisfying, moderately satisfying, slightly satisfying, or not at all satisfying*?" Sexual satisfaction was assessed by the question: "*How physically pleasurable do you find your relationship with partner to be: extremely pleasurable, very pleasurable, moderately pleasurable, slightly pleasurable, or not at all pleasurable*?" Results indicated that between single men and married men, there was a significant difference in emotional satisfaction with sex. Notably, married men in committed relationships indicated a greater emotional satisfaction with sex than single men in short-term relationships. Analogously, results showed that between single women and married women, there was a significant difference in emotional satisfaction with sex. That is, married women in committed relationships reported greater emotional satisfaction with sex than single women in short-term relationships. While the construct of "emotional satisfaction" was not explicitly defined in Waite and Joyner's study and this construct differs from the term "relationship satisfaction" that will be used in the current study, one can assume that emotional satisfaction would be an element involved in sexual satisfaction.

In a longitudinal study, Sprecher (2002) examined sexual satisfaction and relationship quality in premarital couples. The study began with 101 heterosexual dating couples at Wave

One in 1988 and ended with 71 couples by Wave 5 in 1992. The sample attrition rate at each wave of the study was mainly due to the termination of the couple relationship, which prevented further participation in the study. The mean age of both men and women at time 1 of the study was about 20 years. At each wave of the study for both men and women, the results demonstrated that sexual satisfaction was correlated positively and significantly with relationship quality (which encompassed relationship satisfaction, love for partner, and commitment to the relationship). However, the correlations were generally stronger for men (r = .54) than for women (r = .37), and women's sexual satisfaction was generally higher than men's at each wave of the study, except wave 3. Also, there was a linear decrease in sexual satisfaction with each wave of the study which was significant ($p < .05$) for men and borderline significant ($p < .06$) for women. The results suggest that the rate in which sexual satisfaction declines with the longevity of the relationship varies between the genders. Specifically, men's sexual satisfaction appears to decline more as the relationship progresses in comparison to women's sexual satisfaction, although both genders' sexual satisfaction decreased over time.

Byers (2005) drew similar conclusions about the correlation between sexual satisfaction and relationship satisfaction after conducting a longitudinal study with heterosexual couples within an 18-month span. The measures were completed at the beginning of the study and at 18 months. The participants in this study included 87 individuals (34 men, 53 women) who had been in a relationship of one year or longer and up to 35 years. The age of the participants ranged between 23 to 61 years with the mean age being 37.7 years. 85% of the participants were married and 82% of the participants had children living at home. Similar to Sprecher's (2002) findings, the results showed that changes in sexual satisfaction were associated with changes in relationship satisfaction, indicating an association between these variables for both men and

women. However, causality was not established in either direction between the two variables of sexual satisfaction and relationship satisfaction. In other words, low sexual satisfaction did not result in decreased relationship satisfaction and low relationship satisfaction did not result in decreased sexual satisfaction for either men or women. While these two variables were associated, a predictive value was not established between these variables.

Lastly, the association between sexual satisfaction and relationship happiness was examined in midlife and older couples by Heiman et al. (2011). This study was conducted internationally in five countries (Brazil, Germany, Japan, Span, and the United States) and included a total of 1,009 couples who had been in a relationship between 1-51 years. Men in the sample ranged in age from 39 to 70 with a median age of 55. Women's age ranged from 25 to 76 with a median age of 52. As with prior studies, results revealed that sexual satisfaction and relationship satisfaction were correlated. Notably, physical intimacy variables (kissing/cuddling, partner touch/caressing) predicted relationship satisfaction for men, but not for women. However, the duration of the relationship predicted relationship satisfaction for both men and women, indicating that as the relationship duration increased, satisfaction increased, although the findings were more complex for women. Additionally, the results showed that physical intimacy variables were important to both men's and women's sexual satisfaction. However, there were some gender discrepancies in the assessment of relationship satisfaction and physical intimacy. Specifically, men's relationship satisfaction and physical intimacy variables were associated, whereas women's relationship satisfaction and physical intimacy variables were not associated. These results suggest that for women, relationship satisfaction and physical intimacy variables may be perceived as two unrelated and distinctly separate variables. However, similarly to

Sprecher's (2002) findings, women in Heiman et al.'s (2011) study reported significantly more sexual satisfaction than men, and men reported more relationship happiness than women.

In summary, these studies clearly demonstrate that there is an association between sexual satisfaction and relationship satisfaction, although the strength of the association appears to vary between men and women. The present study aims to add to our knowledge about the association between sexual satisfaction and relationship satisfaction, as the study used well established measures of relationship satisfaction and background data to collect information. Additionally, as the study focused on young couples in committed relationships, a better understanding of the elements involved in a happy couple relationship may suggest specific clinical interventions.

Sexual Frequency and Relationship Satisfaction

Scientific attention to the frequency of sex in couples is partly derived from the research that has shown that a correlation exists between sexual frequency and quality of marriage (Christopher & Sprecher, 2000; Call, Sprecher, & Schwartz, 1995). There is ample empirical evidence that variables such as marital duration, age of the partners, and psychological and biological factors associated with the aging process impact sexual frequency (Christopher & Sprecher, 2000). Prior to examining the association between sexual frequency and relationship satisfaction, the average sexual frequency in couples will be reviewed.

As noted earlier, sexual frequency is impacted by different variables. This was confirmed by Christopher and Sprecher (2000) when they examined the sexuality data from the National Survey of Families and Households (NSFH). The data were collected from the interviews conducted from a randomly selected sample of over 13,000 Americans across the life- span. Analysis of the data showed variability in sexual frequency across different ages, marital

duration, and relationship status. For example, married respondents had an overall average frequency of sexual intercourse of 6.3 times per month. However, for couples under the age of 24, the mean sexual frequency was 11.7 times per month, indicating that as partners age, the sexual frequency decreased. For instance, in the 75 and older age group, the mean frequency was less than once per month. The cohabitors had the highest sexual frequency rate followed by married men and women, then single individuals. Overall, the sexual frequency rates were the highest among the young and for those married less than three years.

A German study cited earlier in the chapter also examined the correlation between sexual desire and sexual activity (Beutel, Stobel-Richter, & Brahler, 2007). The researchers found that with each subsequent age group, sexual intimacy declined. Furthermore, for both men and women, low sexual activity was most strongly predicted by older age and an absence of a committed partner. Additionally, other variables such as rural residency, lower education, church membership, and difficulty identifying feelings were associated with low sexual activity.

There is a growing body of evidence that supports the existence of a relationship between sexual frequency and relationship satisfaction and the quality of marriage (Call, Sprecher, & Schwartz, 1995; Christopher & Sprecher, 2000; Perlman & Abramson, 1982). Research shows that the degree of marital satisfaction is likely to affect the frequency of sex and happier couples are likely to have sex more often than unhappy couples (Call, Sprecher, & Schwartz, 1995). Accordingly, increased sexual frequency yields even greater satisfaction in the couples' marriage. Conversely, lower sexual frequency is associated with higher rates of divorce in couples.

As mentioned above, sexual frequency is an integral variable in sexual satisfaction, relationship satisfaction, and relationship dissolution. Morokoff and Gillilland (1993) studied

the correlation between sexual frequency and marital satisfaction for both men and women. Participants included 92 men (mean age = 47.3 years) and 73 women (mean age = 40.6 years) with the median duration of marriage for men 15-25 years and for women 10-14 years. For both men and women, the median number of children was two. In terms of the level of the education in the sample, over half the men and women had four or more years of college and 39 % of men and 37% of women indicated being in a distressed marriage. The results showed that the sexual frequency satisfaction score was positively correlated with marital satisfaction for both men and women, indicating that the greater the dissatisfaction with the sexual frequency, the lower the marital satisfaction. The authors also found that there was a positive correlation between marital satisfaction and frequency of sexual intercourse for both men and women. Although the overall frequency of sex was related to marital satisfaction, low frequency of sex did not predict lower marital satisfaction. This points to the possibility that other variables, such as the quality of sexual engagement as opposed to the frequency of sex may be a factor in marital satisfaction.

A decade-long review on sexuality in marriage and dating was conducted by Christopher and Sprecher (2000). They found that sexual frequency and sexual satisfaction each declined at a different pace. It appears that sexual frequency dropped more rapidly than sexual satisfaction with age and marital duration, suggesting that a decrease in sexual frequency did not parallel the decrease in sexual satisfaction. The authors hypothesized that perhaps as people age (making the assumption that with age, people gain more sexual experience and expertise), the quality of the sexual interactions takes precedence over the frequency. Although the correlation between the quality of the sexual interaction and sexual satisfaction merits further examination, this study will only focus on the association between sexual frequency, sexual satisfaction, and the role of gender in these associations.

In a later study by McNulty and Fisher (2008), sexual frequency, sexual satisfaction, and relationship satisfaction were examined. Specifically, they found that husbands' sexual frequency positively predicted changes in their sexual satisfaction. In other words, for men, an increase in sexual frequency predicted higher sexual satisfaction, whereas a decrease in sexual frequency predicted lower sexual satisfaction. However, for the wives, it was not sexual frequency that predicted sexual satisfaction. The results revealed that it was sexual satisfaction expectancies (the expectation to be sexually satisfied with the husband) that positively predicted changes in women's sexual satisfaction. Overall, a positive correlation was found between marital satisfaction and sexual frequency for both genders; however, this relationship appears to be stronger for men than for women.

Likewise, Yabiku and Gager (2009) found that higher sexual satisfaction and higher sexual frequency were correlated positively with relationship stability. The results also showed that there was a difference between cohabitors and married couples in regard to sexual frequency and relationship dissolution. For example, the authors found that for the cohabitors, low sexual frequency was related to significantly higher rates of relationship dissolution than in married couples. The authors concluded that the cohabitors weighed sexual satisfaction more importantly than married couples and were more likely to relinquish the relationship if their sexual needs were not being met.

Definition of Stress and Stress Models

Stress has gained scientific attention due to the multiple negative health effects of stress on the individual. Stress has been shown to impact the areas of physiological health and psychological conditions (Kiecolt-Glaser & Newton, 2001). Life stress has been associated with

a variety of illnesses such as elevated blood pressure and heart disease (Randall & Bodenmann, 2009; Kiecolt-Glaser & Newton, 2001). Psychological symptoms of stress include sleep disturbance, difficulty concentrating, hyper-alertness, mood disturbance and sexual dysfunction (Morokoff & Gilliland, 1993; Randall & Bodenmann, 2009). Chronic stress is correlated with an increase in cortisol and catecholamine levels (fight-or-flight hormones that are released when in distress) (Kiecolt-Glaser, Glaser, Cacioppo, & Malarkey, 1998). Stress research has focused on both the impact of significant life-altering events as well as the emotional strain placed on the individual to cope with the stress (Harper, Schaalje, & Sandberg, 2000).

One of the salient issues in researching the impact of stress is that there are varying definitions. For example, Perlin (1989) defines stress as beginning with an experience that is perceived as emergent, threatening, or burdensome. Other studies define stress as an unexpected and or disruptive life event that is experienced as a crisis and causes an emotional disturbance, such as anxiety and bodily reactions, or heart palpitations (Harper, Schaalje, & Sandberg, 2000; Randall & Bodenmann, 2009). Despite varying definitions of stress, most researchers agree that stress has a deleterious impact on the individual's psychological and physiological health, creating a negative domino effect on the individual's daily functioning and interpersonal relationships.

There are multiple stress models that are utilized in research, one of which is Perlin's (1989) stress process model. Perlin's stress process model has gained much scientific attention due to the nuanced way in which stress is conceptualized. According to Perlin's stress process model, stress consists of "multiple conceptual components; each component potentially has multiple aspects or dimensions" in which events and stressors converge and 1) lead to chronic stress; 2) chronic stress lead to events; and 3) stress and events provide reciprocal contextual

meaning. Broadly, stressors are in an interactive process involving social contexts, resources, and outcomes. Additionally, the actual impact and management of stress is contingent on the individual's capacity to access both social and personal resources to cope with the stress and the meanings ascribed to the stress. Therefore, the ways in which stress is perceived and managed will be uniquely different based on the individual's interpretation of the event as well as the individual's mastery of coping with these situations.

Randall and Bodenmann (2009) provided a different way to conceptualize stress. They stated that stress or stressors not only affected the individual, but also negatively affected the quality of intimate relationships. The authors conceptualized stress as being a dyadic phenomenon. The authors defined dyadic stress as:

> A stressful event or encounter that always concerns both partners, either directly when both partners are confronted by the same stressful event or when the stress originates inside the couple, or indirectly when the stress of one partner spills over to the close relationship and affects both partners. (p. 106)

They conclude that many theorists and researchers have adopted a systemic view regarding stress, where it is assumed that the stress of one partner would impact the other partner and that the stress of one partner would be imposed on the dyad (couple).

Stress in Couples

Due to both the intimate interactive and reciprocal nature of romantic relationships, it is conceivable that stress may have an adverse impact on the couples' relationship. Substantial empirical evidence shows the bidirectionality of stress between the partners. In other words, stress from one partner affects the wellbeing of the other partner and vice versa. Researchers

have consistently found a correlation between increased stress and decreased relationship satisfaction (Bodenmann, Ledermann, & Bradbury, 2007; Kiecolt-Glaser, Newton, 2001; Harper, Schaalje, Sandberg, 2000). Relational conflicts or relationship dissatisfaction can lead to individual partner stress, which may have a negative effect in other domains such as work, friendships, overall well-being, and quality of life (Randall & Bodenmann, 2009). Although marriage is usually perceived as beneficial or protective for the individual's health, marital conflict can induce both acute stress (i.e. one-time argument) and chronic stress (i.e. daily arguments for years). Numerous studies have documented the negative impact of marital distress on individual stress, as manifested in compromises in endocrine and immunological functioning (Graham, Christian, & Kiecolt-Glaser, 2006; Kiecolt-Glaser, Glaser, Cacioppo, & Malarkey, 1998; Kiecolt-Glaser, Malarkey, Chee, Newton, Cacioppo, et al., 1993).

Whiffen and Gotlib (1989) studied the relationship between stress, marital distress, depression, and coping in pregnant couples. The results from their study indicated that men and women responded differently to their partner's distress. For example, in couples where the husband was maritally distressed, the impact was felt by both partners, not just the husband alone. Specifically, when husbands were maritally distressed (as indicated by lower dyadic adjustment scale (DAS), higher levels of depressive symptoms, more negative life events, and greater negative impact from these events were reported by both partners. However, wives' distress did not have the same impact on their husbands. Additionally, the wives of maritally-distressed husbands reported lower relationship satisfaction than wives of non-maritally distressed husbands. These findings suggest that husbands' marital distress negatively impacts levels of stress and emotional distress for both partners. As the authors pointed out in their article, in a romantic relationship, the major source of social support comes from the partner.

However, if the couple is in distress, the individual's primary support system can be limited or unavailable. Therefore, the individual's capacity to cope with his/her own stress with the help of his/her partner is made complicated, especially if the partner is the source of the individual's stress.

Furthermore, Whiffen and Gotlib (1989) found that maritally-distressed wives reported higher depressive symptoms than their spouses. This suggests that the wives' experience of marital distress affected their own emotional health to a greater degree than their husband's emotional functioning. The results from their study support the formulation made by Kessler and McLeod (1984) that women are more vulnerable than men to the distress of others in their social environment. As Whiffen and Gotlib (1989) hypothesized, this may be due to women being more sensitive to the needs of others and having a greater sense of responsibility to take care of others than men.

Research by Kiecolt-Glaser, Malarkey, Chee, Newton, and Cacioppo (1993), studied the effects of relational stress in 90 physically and psychologically healthy newlywed couples (mean age = 25). From the beginning of the admission and periodically throughout the 24-hour period, the couple's immunological, endocrinological, and physiological changes were assessed. After the adjustment period, the couples were asked to talk about an area of conflict that was identified on the Relationship Problem Inventory. They were instructed to resolve these issues during the 30 minute discussion. Marital interaction coding system (MICS) was used to gather information regarding the couple's problem-solving behaviors during the 30-minute conflict resolution task and both positive and negative behaviors were coded. Broadly, positive behaviors included problem-solving, validation/facilitation, and humor, while negative behaviors included "active" negative behaviors (i.e. criticize, disagree, deny responsibility, etc.) and avoidance/withdrawal

behaviors. Results showed that individuals who indicated high negative rating on the MICS reported significantly lower marital satisfaction on the Locke-Wallace Marital Adjustment Test (MAT), compared to the low negative-behavior reporting individuals. While both the high and negative MICS group's hostility declined at about the same rate, the high negative interaction group reported higher hostility at the end of the conflict resolution discussion. Results also revealed that couples who had been more negative or hostile during the problem discussion exhibited greater negative immunological changes (lowered cellular immune responses) after 24 hours together in the research hospital. Additionally, marital problem discussion resulted in increased blood pressure, which remained elevated longer for the high negative behavior participants in comparison to the low negative behavior participants. Moreover, negative and hostile behaviors were significantly correlated with physiological changes, a result not observed from positive, avoidant, and problem-solving behaviors. Also, women showed greater negative immunological changes than men. Data analysis also revealed that women engaged in more negative behaviors and men engaged in avoidance and withdrawal behaviors during conflict discussions.

In a later study by Kiecolt-Glaser, Glaser, Cacioppo, and Malarkey (1998), the relationship between physiological changes and conflict resolution in older couples (mean age = 67) was examined. As with the previous results found by Kiecolt-Glaser et al. (1993), they found that negative behaviors during conflict resolution had adverse effects on immune functioning. In particular, women's immune and physiological functioning were more compromised than men's functioning. Additionally, the negative effects of the conflict discussion persisted longer for women than for men.

Whisman (2007) studied the relationship between marital distress and psychiatric disorders in a population-based national survey (N = 9,282). He found that marital distress was significantly correlated with an increased risk for anxiety, mood, and substance use disorders. Specifically, the author found that bipolar disorder, alcohol use disorders, and generalized anxiety disorder had the strongest associations with marital distress. Unlike earlier studies that indicated that there were gender differences in the negative impact of marital distress on the couple functioning, Whisman found that the association between marital distress and psychiatric disorders was not significantly different in men versus women. As this was a cross-sectional study exploring the prevalence rate of psychopathology and marital distress, whether the marital distress was a cause or consequence of the psychopathology could not be determined.

In another study in the same year, Bodenmann, Ledermann, and Bradbury (2007) examined the impact of "daily hassles (chronic daily stressors)" and major life events in marital relationships. The authors found that daily hassles appeared to be more closely linked to marital dissatisfaction than major life events that were perceived as being negative. Conflicts about daily tasks such as chores, cooking or cleaning may have a more detrimental effect on the relationship than disagreements about major life events such as changing careers or having children. The authors proposed that different levels of stress, such as minor versus major stress, or stress that is either internal or external to the dyad, differentially impact the rate at which marriages deteriorate.

Overall, the numerous studies examined above suggest that indeed individual stress and relationship distress reciprocally and interactively impact the individual and relationship functioning. Due to the negative implications of stress and its impact on marital satisfaction, this area will be examined further in the current study.

Individual Stress and Sexual Satisfaction

There is substantial evidence that shows that stress impacts many aspects of an individual's well-being, including sexual intimacy. Harper, Schaalje, and Sandberg (2000) examined the relationship between daily hassles and intimacy in older heterosexual couples between the ages of 55 to 75 years. The participants included 472 individuals who were married to each other and randomly selected from all fifty states. While it is widely accepted that intimacy is an important component in the couple relationship, the definition of intimacy is quite varied between researchers. In this study, the authors defined intimacy as a "process of sharing intimate experiences (feelings of closeness) in five main areas: emotional, social, sexual, intellectual, and recreational." The Personal Assessment of Intimacy in Relationships (PAIR) was used to measure these respective intimacy domains. They defined stress as "a relationship between a person and the environment that is appraised by the person as taxing his or her resources and endangering his or her well being." Hassles and Uplifts Scale (HUS) was used to assess the daily stressors and hassles of the participants. The results indicated that both husbands' and wives' marital satisfaction were significantly correlated (r = .52) with each other, as was their intimacy (r = .71) and their daily hassles (r = .40) scores. Furthermore, intimacy was positively correlated with marital quality and daily hassles were negatively correlated with marital quality. In other words, one partner's report of daily hassles or intimacy was associated with the marital quality of his/her respective partner. The authors also found that the perception of intimacy was positively correlated with marital quality for the wives, but not for the husbands. Additionally, they found that for both husbands and wives, intimacy did mediate the negative

effects of stress on the marital quality. They concluded that stress has a negative impact on marital quality and that intimacy alleviates the negative effects of stress on the marital quality.

In a later study by Bodenmann, Ledermann, and Bradbury (2007), the relationship between internal and external stress, sex, and satisfaction in marriage in 198 couples was examined. The participants were between 20-45 years old and with the largest sample being in the range between 31-40 years old and 75% of the couples were married and 70.4 % had children. The results demonstrated that relationship satisfaction correlated with lower levels of internal daily stress (r = -.35 for men; r = -.45 for women). They found that partners experiencing stresses stemming from the dyad experienced lower levels of relationship satisfaction, sexual satisfaction, and sexual activity. The results from the study confirm that dyadic stress has a negative impact on the relationship satisfaction and sexual intimacy.

Quality of Life

Quality of life (synonymously referred to as life satisfaction in many studies) denotes an individual's subjective assessment of the degree to which his/her most important needs, goals, and wishes have been fulfilled (Frisch, Cornell, Villanueva, & Retzlaff, 1992). In marital research, quality of life has been found to be strongly associated with marital status. Research suggests that marital status provides some protective effects on general health of the individual (Graham, Christian, & Kiecolt-Glaser, 2006). Conversely, unmarried persons have greater risk of mortality than married persons, and this association is particularly strong for men. Additionally, following a divorce, negative consequences such as risk for psychopathology, rates for automobile accidents, incidence of physical illness, and rate of mortality from diseases and

suicide increase (Gottman, 1998). These findings suggest that being married may be mentally and emotionally more advantageous than being unmarried or divorced.

However, Williams' (2003) study provides somewhat contradictory findings. Williams examined the association between marital quality and psychological well-being. She studied the data from the Americans' Changing Lives Survey (1986) with individuals 24 years and older living in the contiguous United States. The first wave included 3,617 participants; the second and third wave included 2,348 participants. The author found that marital quality was strongly associated with depression and life satisfaction. In other words, lower marital harmony (a positive marital quality dimension) and greater marital distress (a negative marital quality dimension) at Time 1 appeared to increase depression and lower life satisfaction for both men and women. Additionally, she found that continually married men and women with low levels of marital harmony at Time 1 were significantly more depressed three to five years later in comparison to unmarried individuals. In other words, being in a maritally distressed relationship yields more severe depression than in single individuals who experience depression. Furthermore, she found that leaving a problematic relationship did not undermine the psychological well-being to a greater degree than staying in a strained marriage, meaning the individual was in a healthier psychological state after leaving the distressed relationship as opposed to remaining in the strained relationship. Therefore, Williams concluded that marital status was only protective for couples who were in happy relationships and that for couples in unhappy relationships, they would be happier not being in a relationship with their current partner.

Bailey and Snyder (2007) also studied the relationship between marital status and life satisfaction. The study included 215 individuals, predominantly female (58.6%), 66% married,

and generally older (49.7 % between 35-54 years old). The results showed that individuals who were married or living as married rated higher life satisfaction than those who were separated/divorced/widowed. They also found that the individuals who were satisfied with their life also rated higher on the hope scale.

Stanley, Ragan, Rhoades, and Markman (2012) examined the association between life satisfaction and relationship adjustment. In this study, life satisfaction was defined as a construct of subjective well-being, and relationship adjustment was assessed by discriminating between maritally distressed/non-distressed couples. The participants in this study included 126 men and 125 women who were part of a larger study on premarital education and transition to marriage. The men were 18 to 53 years old (M = 27.01, SD = 5.15) and women were 18 to 53 years old (M = 25.64, SD = 5.22). The average duration of the relationship at Time 1 of the study was 36.37 months (SD = 26.47). The researchers found that premarital life satisfaction levels were predictive of relationship adjustment 6 years into the marriage. From the results, the authors concluded that life satisfaction levels prior to marriage played an important role in determining the future relationship quality for the couple. This finding suggests that what each partner brings to the relationship as it relates to his/her own life satisfaction prior to marriage can have a significant impact in the quality of the relationship and perhaps relationship satisfaction.

Purpose of the Current Study

The present study examined the associations among sexual satisfaction, relationship satisfaction, individual stress, and quality of life in committed couples. In addition to examining the individual associations among these variables, the study examined the degree to which sexual

satisfaction mediates the association among relationship satisfaction, individual stress, and quality of life.

In addition, this study explored possible gender differences in these associations, and examined whether the frequency of sex mediates the association between relationship satisfaction and well-being (stress and quality of life) more strongly for men than for women. A substantial literature exists to suggest that frequency of sex (as opposed to overall quality of sex) may be a greater determinant of relationship satisfaction for men than for women, but few studies to date have examined possible gender differences in the degree to which sex frequency mediates the impact of the association between relationship satisfaction and individual well-being.

The following hypotheses were examined:

1. Sexual relations will be positively related to self-reported relationship satisfaction.

2. Positive sexual relations will be related to fewer self-reported symptoms of stress.

3. Sexual conflicts will be related to lower self-reported quality of life.

4. Sexual satisfaction will be found to mediate the association between relationship satisfaction and stress, more for men than for women.

5. Sexual satisfaction will be found to mediate the association between relationship satisfaction and quality of life, more for men than for women.

6. Sexual frequency will be positively correlated with men's relationship satisfaction, sexual satisfaction, stress, and quality of life.

7. Sexual frequency will not be correlated with women's relationship satisfaction, sexual satisfaction, stress, and quality of life.

CHAPTER 3

Methods

Subjects

The present study utilized archival data collected between 1997 and 2002 from a community sample of 93 premarital and newly-married couples who participated in a larger study of the impact of a psychoeducational intervention on communication ability, relationship satisfaction, stress, and health. The larger study was designed to test the hypothesis that non-distressed premarital couples who received a 15-hour, two-week psychoeducational intervention, the Prevention and Relationship Enhancement Program (PREP), would show higher rates of relationship satisfaction and greater relationship stability, measured one year later, than couples that did not receive the intervention. A second hypothesis was that the partners who received the intervention would report lower stress levels, fewer physical and mental health symptoms, and higher quality of life. However, the data to be examined in this study are limited to the Time 1 Pre-intervention assessment. Specifically, data from the packet of self-reported measures completed by each couple partner were measures that evaluated relationship satisfaction, sexual satisfaction, symptoms of stress, and overall quality of life.

Details of how subjects were recruited for the study are presented in the Procedures section. Two subjects were removed from the study due to one being an outlier and one being an impossible score, reducing the overall sample size (N = 184). Table 1 reports the demographic information of the overall sample, which includes the age, education, duration of time dated with partner, and duration of time known partner.

Demographic Information (N = 184)

In terms of age, the men ranged from 19 to 51 years, with a mean age of 30.10 years. The women in the sample ranged from 18 to 52 years with a mean age of 27.99 years. The average education level achieved by the participants was 15.52 years for men and 16.03 years for women. The average duration of time that these couples had known each other was 3.56 years, and the average duration of time that these partners had dated with partner was 2.81 years.

On average, the male partners were approximately two years older than their respective female partners and the female partners had approximately half a level higher in education than their male partners. The partners had known each other for about three and a half years and dated with partner about three years. The duration of time married to partner and the duration of time living with partner was not used**,** due to too many missing data.

Table 2 reports the demographic information of ethnicity, employment, relationship status, and children with current partner. Racially, 64.8 % of the males and 64.1 % of the females were Caucasian, 14.3% of the male and 12.0% of the females were African-American, 13.2% of the male and 7.6% of the female were Hispanic, 3.3 % of the male and 10.9% of the female were Asian, 3.3 % of the male and 4.3 % of the female were American Indian and 1.1% were listed as “missing” in the sample.

For male employment, 45.7% were full-time only, 17.4% were full and part-time, 19.6% were part-time only and 17.4% were unemployed. For female employment, 40.2% were full-time only, 6.5% were full and part-time, 34.8% were part-time only and 18.5% were unemployed.

Of the participants, 39.6% were married, 33.0% were planning marriage/engaged to be married, and 27.5% were exclusively dating and monogamous. Of the 92 couples, a mean of .02 had children with their current partner with a SD = .15.

Procedures

Subject Recruitment and Assessment on Inclusion/Exclusion Criteria

Couples were recruited through advertisements in two free local newspapers (*New York Press* and *The Village Voice*). The study was advertised as an investigation of couple communication patterns. As it was a prevention study, it only recruited non-distressed couples planning marriage, engaged, married for no longer than 1.5 years, or cohabiting no longer than four years. Couples could not be in couple treatment, and partners had to have no prior history of diagnosed psychiatric illness requiring medication, no acute or chronic medical conditions, and no drug or alcohol problems. They must have completed at least 12 years of formal education.

Couples who responded to the advertisement first participated in a telephone screening. Each partner was screened in a separate call, and it was requested that the other partner not be present during the phone call in order to allow each partner to rate his/her relationship satisfaction independent of the other's ratings. To be invited to participate further in the study, both partners had to rate their relationship satisfaction as "happy" (a score of 4 or above on a scale of 1 to 7 where 1 is most unhappy and 7 is most happy) on the first item of the PMAT (Pre-Marital Assessment Test). As a second assessment of relationship satisfaction, both partners had to describe their relationship as no more than mildly distressed on a 4-point scale ranging from

none to severe (none, mild, moderate, severe). Couples in which one or both partners did not meet these criteria were excluded from the study.

If both partners passed the phone screening, they came to the New York University Child Study Center and, after providing written informed consent, completed a communication task and a packet of questionnaires (described in more detail below), including the complete Premarital Adjustment Test. If their scores on the scale confirmed that they were in the nondistressed range, their data were included in the study. This screening process resulted in a total of 93 couples accepted for the study.

Assessment Procedures

Couple partners first completed the Relationship Agendas Protocol, which assessed their degree of conflict about common areas of couple disagreement. They were then asked to have a 20-minute audio-taped discussion with their partner on the topic that both of the members of the couple identified as either the highest-ranked or second highest-ranked area of conflict (half of the couples discussed their highest-ranked area of conflict in the pre-intervention assessment and half discussed their second highest-ranked area . This format was used to counter-balance couples in terms of whether they discussed their highest- or second highest-ranked topics at pre-intervention and post-intervention). The couples then completed a packet that included questionnaires of demographics, relationship satisfaction, health and daily living, commitment, attachment, life pace matching, symptoms of stress, and quality of life. They were then randomly assigned to the PREP cohort or to the no-treatment control cohort.[2]

[2] The remainder of the design is irrelevant to the present analyses of T1 data but is mentioned for the sake of completion.

PREP couples completed a fifteen-hour workshop conducted over two weeks that taught communication, problem-solving and other conflict management and relationship enhancement skills (Fraenkel & Markman, 2002; Markman, Stanley & Blumberg, 2001). After completion of this workshop, both PREP and control couples returned to complete the same research protocol.

In all, couples were assessed at the time before the intervention (Time 1: Pre-assessment), within two weeks after intervention (Time 2: Post-intervention), and at one year following the intervention (Time 3: 1 year follow-up). As noted, the data used in the present study are those collected at the Time 1 (pre-intervention) assessment. Only the measures utilized in the present analyses will be described.

Measures

Relationship Satisfaction: Locke-Wallace Pre-Marital Adjustment Test (PMAT)

The pre-marital version of the Locke-Wallace Marital Adjustment Test (Locke & Wallace, 1959) was used to assess relationship satisfaction, as this study included both pre-marital and marital couples. The only change in the PMAT version of the scale from the original Marital Assessment Test (MAT) was that the word "marriage" or "marital" was replaced with the word "relationship."

The PMAT is derived from the MAT, which is a 15 item self-reported measure of relationship satisfaction and which assesses areas of marital functioning such as disagreement, perceived communication quality, leisure time activities, and satisfaction or regrets about having married one's spouse. The MAT was developed on a sample of 118 men and 118 women to evaluate spouses' happiness with their partners and marriage. Items included the overall 7-point

rating of degree of happiness described above, as well as assessments of the degree of agreement on marital issues, quality of companionship, and self-reported success in conflict resolution.

The MAT has evidenced high internal consistency reliability, with an alpha coefficient of .90, and has been found to have excellent criterion validity. The PMAT is among the most widely used marital and pre-marital assessment instruments (Sabatelli, 1988), and was used in the original studies of the efficacy of the PREP program, upon which this study was based (Markman et al., 1988).

The concurrent validity of the MAT is supported by strong correlations with other leading measures of marital satisfaction, such as the Dyadic Adjustment Scale (.86), ENRICH (.73), and Marital Satisfaction Scale (.78) (Fowers, 1991; Sabatelli, 1988).

Degree of Satisfaction or Conflict about Sex: Relationship Agendas Protocol

A separate questionnaire assessing sexual satisfaction and sexual frequency was not administered in the original study. Therefore, selected items from the questionnaires included in this study were utilized to assess degree of satisfaction with sex and frequency of sex in the couples' relationship. Although a complete measure assessing sexual satisfaction would be preferable, items with high face validity have been used in research and some studies have found these single-item measures can be as reliable as measures based on multiple items (Headey, Holmstrom, & Wearing, 1984; McNeily & Meglino, 1984; Scarpello & Campell, 1983).

The degree to which sex is an area of conflict was assessed by couple partners' ratings on the sex item of the Relationship Agendas Protocol (RAP). Degree of satisfaction with sex life was assessed using one item from the Quality of Life Index. These instruments are described in turn.

The Relationship Agendas Protocol (RAP; Knox, 1970) asks partners to consider a list of issues that the couples may be facing in their relationships. Each member of the couple is then asked to rate the degree to which each issue is a problem in the relationship, from 0 (not at all a problem) to 100 (a severe problem). The problem areas include money, sex, in-laws, jealousy, schedules, communication, recreation, religion, friends, pace difference between partners, time together versus time apart, alcohol and drugs, children, differences in time perspective, career, managing time, and other common areas of conflict.

Sexual satisfaction was assessed using item #13, Part 1 from The Quality of Life Index (QLI; how satisfied are you with your sex life?). The full scale is described below.

Assessment of Frequency of Sex: Background Information Questionnaire

The Background Information Questionnaire provides the subject's demographics, such as identifying information, status of current relationship, income, religion and sex. Item #21 was used to assess self-reported frequency of sex (About how frequently do you and your partner have sexual intercourse?).

Individual Partner Stress: Symptoms of Stress Index

The Symptoms of Stress Inventory (SOSI) is the revised Cornell Medical Index, a 107-item questionnaire used to measure physical, psychological and behavioral responses to stressful situations. The respondents are asked to rate the frequency with which they experience various stress-related symptoms on a five-point scale, ranging from 0 (never) to 4 (very frequently), during a designated time period specified by the investigator--in this case, during the past week. By providing a rating scale, the SOSI overcomes the weakness of checklist measures, which

assume universally valid weightings of stressful events based on normative data. Instead, the SOSI requires the subjects to identify and rate all pertinent stressful events occurring in their lives.

The SOSI has demonstrated both predictive and concurrent validity in a mixed chronic-illness sample of patients with malignant melanoma and myocardial infarction (Leckie & Thompson, 1979). Overt symptoms of stress as measured by SOSI are directly related to functional changes caused by disease, which is negatively correlated with perceived quality of life and cognitive adaptation. The scale has also been used with community samples. Across subscales, alphas ranged from .70 to .87 in the cancer sample and .67 to .84 in the community sample (Carlson & Brown, 2005).

Partner Subjective Quality of Life: The Quality of Life Index

Quality of Life (QOL) scale (Frisch, 1998) refers to the degree of excellence in life (or living) relative to some expressed or implied standard of comparison; a comparison group might reflect the experience of that of most people in a particular society (Frisch, 1998). The Quality of Life Index (QLI) is designed to measure the quality of life of healthy persons as well as those who have illnesses. It is a 76-item questionnaire that assesses participants' sense of satisfaction in various domains (i.e. health, life style, sex) on a scale of 1-6 with 1- being very dissatisfied, 2- moderately dissatisfied, 3- slightly dissatisfied, 4- slightly satisfied, 5- moderately satisfied, and 6- very satisfied.

Initial reliability and validity assessments of the QLI were conducted with graduate students and dialysis patients (Ferrans & Powers, 1985). Cronbach's alphas of .93 for the

graduate students and .90 for the dialysis patients confirmed internal consistency reliability (Ferrans & Powers, 1985).

Operational Hypotheses

1. Positive sexual relations (as measured by higher sexual satisfaction on Quality of Life Index) will be positively associated with self-reported relationship satisfaction (as measured by Pre-Marital Adjustment Test). Conversely, sexual conflicts (as measured by Relationship Agendas Protocol) will be negatively associated with relationship satisfaction (as measured by Pre-Marital Adjustment Test).
2. Positive sexual relations (as measured by higher sexual satisfaction score on QLI) will be negatively associated with scores on the Symptoms of Stress Inventory. Conversely, sexual conflicts (as measured by Relationship Adjustment Protocol) will be positively associated with scores on the Symptoms of Stress Inventory.
3. Sexual conflicts (as measured by Relationship Adjustment Protocol) will be negatively associated with self-reported quality of life (as measured by Quality of Life Index).
4. Sexual satisfaction (as measured by the item #13 on the QLI) will:
    a) Mediate the effects of relationship satisfaction (as measured by the Pre-Marital Adjustment Test) and stress (as measured by Symptoms of Stress Inventory)
    b) Mediate the effects of relationship satisfaction (as measured by the Pre-Marital Adjustment Test) and quality of life (as measured by the Quality of Life Index)
    c) Hypothesize that the size of the mediating effects on hypothesis 4a and 4b would be larger for men than for women

5. For men, sexual frequency (as indicated by item#21 on the Background Information Questionnaire) will be:
    a) Positively associated with relationship satisfaction (as measured by the Pre-Marital Adjustment Test)
    b) Positively associated with overall quality of life (as measured by the Quality of Life Index)
    c) Positively associated with sexual satisfaction (as measured by item #13 on the QLI)
    d) Negatively associated with stress (as measured by Symptoms of Stress Inventory)
6. For women, sexual frequency (as indicated by item #21 on the Background Information Questionnaire) will not be associated with:
    a) Sexual satisfaction (as measured by item #13 on the QLI)
    b) Stress (as measured by Symptoms of Stress Inventory)
    c) Overall quality of life (as measured by the Quality of Life Index)
    d) Relationship satisfaction (as measured by the Pre-Marital Adjustment Test)

CHAPTER 4

Results

The current study investigated the association among sexual satisfaction, relationship satisfaction, individual stress, and quality of life. In this chapter, the descriptive statistics for all of the variables will be presented followed by the inferential statistics on the specific hypotheses.

Summary Statistics

Table 1 and 2 (Appendix A) lists the demographic data for the sample. The summary statistics for the variables for the overall sample for the males and females are listed in Table 3. Two variables were removed from the study due to one being an outlier and one being an impossible score, reducing the overall sample size (N = 92). Means, standard deviations, skew, and kurtosis were evaluated to determine whether the variables were normally distributed. Variables with skew or kurtosis values higher than |2| are considered to be non-normal. Normality tests were conducted using N =92, which only showed significant kurtosis for Relationship Adjustment Protocol (RAP) scores (k = 2.01 for males; k = 2.37 for females) and Symptoms of Stress Inventory (SOSI) scores (k =2.30 for males; k = 3.35 for females). These scores were transformed using square root transformation (see Table 4).

Preliminary analyses of the relationship between demographic variables and the dependent variables were conducted to determine whether any of the demographic and background variables should be used as covariates. Dependent variables tested were: relationship satisfaction, sexual satisfaction, sexual conflicts, sexual frequency, stress, and quality of life. Background and demographic variables examined were: ethnicity, age, relationship status, education level, time known partner, and employment status.

Ethnicity

Five analyses of variance (ANOVAs) were conducted to determine whether male ethnicity was related to dependent variables (relationship satisfaction, sexual satisfaction, sexual conflicts, stress, and quality of life). Results showed that none of the continuous dependent variables were associated with male ethnicity (see Table 5).

Five ANOVAs (analysis of variance) were conducted to determine whether female ethnicity was related to dependent variables (relationship satisfaction, sexual satisfaction, sexual conflicts, stress, and quality of life). Results showed that none of the dependent variables were associated with female ethnicity (see Table 6).

Four Kruskall-Wallace tests were conducted to determine whether the ordinal dependent variable of sexual frequency was associated with male and female ethnicity. The ethnicities were separated into six groups (Caucasian, African-American, Hispanic, Asian, American-Indian, and Other), which yielded small cell sizes. Therefore, ethnicity was combined into three categories (Caucasian, African-American, and Other) to reduce small cell sizes. Analyses were conducted with these three groups of ethnicity. Results showed that there was no significant association between the male ethnicity and sexual frequency (χ^2 [14, N = 91] = 8.27, p = .88). Analogously, results also showed that there was no significant association between female ethnicity and sexual frequency (χ^2 [14, N = 89] = 8.44, p = .87). Since ethnicity was not associated with any of the dependent variables, it was not used as a covariate to test the hypotheses.

Age

Ten Pearson's correlations were conducted to determine whether male and female age was related to dependent variables (relationship satisfaction, sexual satisfaction, sexual conflicts, stress, and quality of life). Results showed that male age was significantly negatively associated with stress and significantly positively associated with quality of life. Results showed that female age was not associated with any of the continuous dependent variables (see Table 7). Therefore, age was used as a covariate to test the hypotheses for male stress and male quality of life, but not for female stress and female quality of life.

Relationship Status

Eight ANOVAs (analysis of variance) were conducted to determine whether relationship status was related to dependent variables (relationship satisfaction, sexual conflicts, stress, and quality of life). Only one significant difference was found on relationship satisfaction for men. Therefore, posthoc Tukey tests were performed to determine which relationship statuses differed and the results showed that the exclusive dating group ($M = 95.44$, $sd = 31.38$) was significantly different from planning marriage ($M = 118.87$, $sd = 20.07$, $p = .03$) and the married group ($M = 120.96$, $sd = 17.44$, $p = .01$). The difference in scores had an effect size of $d = 1.13$, traditionally considered a large effect size (see Table 8). Therefore, relationship status was used as a covariate in all hypotheses tests for male relationship satisfaction.

Four Kruskal-Wallis tests were performed to determine whether there were differences between the relationship status on the raw scores of the ordinal dependent variables of sexual frequency and sexual satisfaction. No significant differences were found (see Table 9). Therefore, relationship status was not used as a covariate in testing the hypotheses.

Education

Eight Pearson's correlations were conducted to determine whether education level was related to the dependent variables (relationship satisfaction, sexual conflicts, stress, and quality of life). Results showed that male and female education level was not associated with these dependent variables (see Table 10).

Four Spearman's correlations were conducted to determine whether sexual frequency and sexual satisfaction was associated with education level. Results showed that these variables were not associated with education level (see Table 11). Therefore, education status was not used as a covariate in testing the hypotheses.

Time Known Partner

Eight Pearson's correlations were conducted to determine whether time known partner was related to the dependent variables (relationship satisfaction, sexual conflicts, stress, and quality of life). Results showed that time known partner was not associated with the dependent variables (see Table 12).

Four Spearman's correlations were conducted to determine whether male and female sexual satisfaction and male and female sexual frequency was associated with time known partner. Results showed that time known partners were not associated with sexual satisfaction. However, male and female sexual frequency was significantly associated with time known partner (see Table 13). Therefore, time known partner was used as a covariate in the hypotheses testing.

Employment

Five ANOVAs (analysis of variance) were conducted to determine whether male employment was related to dependent variables (relationship satisfaction, sexual satisfaction, sexual conflicts, stress, and quality of life). Results showed that none of the continuous dependent variables were associated with male and female employment status (see Table 14). Therefore male and female employment status was not used as a covariate in the hypotheses testing.

Intercorrelations

Intercorrelations were used to determine whether the male and female ratings of variables were correlated. Relationship satisfaction, sexual satisfaction, sexual conflicts, and quality of life were all correlated with a medium to large effect size. However, male and female ratings for stress were not correlated. As expected, sexual conflicts (*r (p)* = -0.66 (<.001)) and sexual satisfaction (*r (p)* = -0.54 (<.001)) were negatively correlated with a large effect size for both males and females (see Table 15).

Hypothesis Tests

The first hypothesis examined the association between relationship satisfaction, sexual conflicts, and sexual satisfaction.

Hypothesis 1: Association between sexual satisfaction, sexual conflicts, and relationship satisfaction

Male relationship satisfaction

A hierarchical regression analysis was conducted to test Hypothesis 1 for male relationship satisfaction. In the first step, the covariate (relationship status, coded 1 = dating and 2 = for married/engaged) was entered to control for its effect on the DV (relationship satisfaction). This variable explained 8.9% of the variability (R = .298, F [1, 89] = 8.70, p = .004). In the second step, male and female transformed scores for sexual conflicts (RAP) and male and female ratings for sexual satisfaction (QLI #13 Adjusted) were entered. The addition of these independent variables in the second step explained a significant amount of variability (28.3%) in relationship satisfaction (R^2 change = .283, F change [4, 85] = 9.58, p < .001). In examining the coefficients, it was found that individually, two variables showed significant associations with male relationship satisfaction (PMAT): male ratings of sexual satisfaction (QLI 13 adjusted) and male ratings of sexual conflicts (RAP). Male ratings of sexual satisfaction (QLI 13 adjusted) were positively associated with relationship satisfaction and male ratings of sexual conflicts (RAP) were negatively associated with relationship satisfaction. These results demonstrate that the male ratings of sexual satisfaction (QLI #13 adjusted) and male ratings of sexual conflicts (RAP) were associated with relationship satisfaction for men (see Table 16).

Female relationship satisfaction

A linear regression analysis was conducted to test Hypothesis 1 for female relationship satisfaction as no covariate was needed. Male and female transformed scores for sexual conflicts (RAP) and male and female ratings of sexual satisfaction (QLI 13-adjusted scores) were entered simultaneously for their effects on the DV (relationship satisfaction). These four variables explained 20% of variability (R = .447, F [4, 86] = 5.38, p = .001) in relationship satisfaction. In examining the coefficients, it was found that individually, only one variable showed significant

association with female relationship satisfaction (PMAT): male ratings of sexual conflicts (RAP), which were negatively associated. However, these results show that the female ratings of sexual conflicts and female ratings of sexual satisfaction were not associated with women's relationship satisfaction (see Table 17).

Summary of Hypothesis 1. The results show that for men, relationship satisfaction was significantly positively associated with sexual satisfaction and significantly negatively associated with sexual conflicts, supporting Hypothesis 1. However, for women, relationship satisfaction was neither associated with sexual satisfaction nor with sexual conflicts, failing to support Hypothesis 1.

Hypothesis 2: Association between sexual satisfaction and stress

Male sexual satisfaction and stress

A hierarchical regression analysis was conducted to test Hypothesis 2 for male stress. In the first step, the covariate (age of male) was entered to control for its effect on the DV (stress). This variable explained 5.60% of the variability (R = .236, F [1, 89] = 5.23, p = .025). In the second step, male and female transformed scores for sexual conflicts (RAP) and male and female scores of sexual satisfaction (QLI 13-adjusted) were entered. The addition of these independent variables in the second step explained an insignificant amount of variability (5.70%) in stress (R^2 change = .057, F change [4, 85] = 1.36, p = .26). In examining the coefficients, it was found that individually, only one variable showed significant association with male stress (SOSI): male ratings of sexual conflicts (RAP). These results demonstrate that male ratings of sexual conflicts

(RAP) were significantly positively associated with male stress. However, male ratings of sexual satisfaction were not significantly associated with male stress (see Table18).

Female sexual satisfaction and stress

A linear regression analysis was conducted to test Hypothesis 2 for female stress as no covariate was needed. Male and female transformed scores for sexual conflicts (RAP) and male and female ratings of sexual satisfaction (QLI 13-adjusted scores) were entered simultaneously for its effects on the DV (stress). These four variables explained 8.3% of variability (R = .288, F [4, 86] = 1.95, p = .109) in the stress variable. In examining the coefficients, it was found that individually, only one variable showed significant association with female stress (SOSI): male ratings of sexual satisfaction (QLI 13 Adjusted). These results demonstrate that the male ratings of sexual satisfaction were negatively associated with female stress. However, female ratings of sexual conflicts and sexual satisfaction were not associated with female stress (see Table 19).

Summary of Hypothesis 2 Findings. The results indicate that for men, sexual conflicts and stress were significantly positively associated. However, men's sexual satisfaction was not associated with stress, partially supporting Hypothesis 2. For women, stress was neither associated with sexual conflicts nor with sexual satisfaction, failing to support Hypothesis 2.

Hypothesis 3: Association between sexual conflicts and quality of life

Male sexual conflicts and quality of life

A hierarchical regression analysis was conducted to test Hypothesis 3 for male quality of life. In the first step, the covariate (age of male and female) was entered to control for its effect

on the DV (quality of life). This variable explained 7.6% of the variability (R = .276, *F* [2, 88] = 3.62, *p* = .031). In the second step, male and female transformed scores for sexual conflicts (RAP) were entered. The addition of these independent variables in the second step explained a significant amount of variability (12.5%) in stress (R^2 change = .125, F change [2, 86] = 6.76, *p* = .002). In examining these coefficients, it was found that individually, only one variable showed significant association with male quality of life: male ratings of sexual conflicts (RAP). These results demonstrate that the male ratings of sexual conflicts (RAP) were significantly negatively associated with quality of life for men (see Table 20).

Female sexual conflicts and quality of life

As no covariate was needed, a linear regression analysis was conducted to test hypothesis 3 for female quality of life. Male and female transformed scores for sexual conflicts (RAP) were entered for their effects on the DV (quality of life). These two variables explained 12.9% of variability (R = .129, *F* [2, 89] = 6.58, *p* = .002) in the quality of life. In examining the coefficients, it was found that individually, neither of the two variables showed significant association with quality of life for women. These results demonstrate that female ratings of sexual conflicts were not associated with female quality of life (see Table 21).

Summary of Hypothesis 3 findings. The results demonstrate that for men, sexual conflicts were negatively associated with their quality of life, supporting Hypothesis 3. Contrarily, for women, sexual conflicts were not associated with their quality of life, failing to support Hypothesis 3. However, female sexual problem ratings showed near significant association with women's quality of life.

Hypothesis 4a: Mediating effects of sexual satisfaction between relationship satisfaction and stress

Mediating Effects of Sexual Satisfaction on Male Stress

A test of the mediation model hypothesized was conducted using the INDIRECT procedure (Preacher & Hayes, 2008). The independent variable was relationship satisfaction, the dependent variable was male ratings of stress, and the hypothesized mediators were sexual satisfaction as rated by men and by women. Results found that the mediation model was not supported. The indirect (mediating) effect of male sexual satisfaction was not significantly different from zero (b = 0.0000, 95% CI: -0.0018 to 0.0020) nor was the indirect (mediating) effect of female sexual satisfaction significantly different from zero (b = 0.0000, 95% CI: -0.0017 to 0.0018). There were no significant mediation effects for either male or female sexual satisfaction scores on relationship satisfaction and stress, failing to support the hypothesis (see Figure 1).

Mediating Effects of Sexual Satisfaction on Female Stress

A test of the mediation model hypothesized was conducted using the INDIRECT procedure (Preacher & Hayes, 2008). The independent variable was relationship satisfaction, the dependent variable was female ratings of stress, and the hypothesized mediators were sexual satisfaction as rated by men and by women. Results found that the mediation model was not supported. The indirect effect of male sexual satisfaction was not significantly different from zero (b = -0.0008, 95% CI: -0.0024 to 0.0003.) nor was the indirect (mediating) effect of female

sexual satisfaction was significantly different from zero (b = -0.0001, 95% CI: -0.0016 to 0.0005), failing to support the hypothesis (see Figure 1).

Summary of Hypothesis 4a findings. Overall, the results suggest that both male and female sexual satisfaction did not have a significant impact on the relationship satisfaction and stress ratings, failing to support Hypothesis 4a.

Hypothesis 4b: Mediating effects of sexual satisfaction between relationship satisfaction and quality of life

Mediating effects of sexual satisfaction on relationship satisfaction and male quality of life

A test of the mediation model hypothesized was conducted using the INDIRECT procedure (Preacher & Hayes, 2008). The independent variable was relationship satisfaction, the dependent variable was male ratings of quality of life, and the hypothesized mediators were sexual satisfaction as rated by men and by women. Results found that the mediation model was not supported. The indirect (mediating) effect of male sexual satisfaction was not significantly different from zero (b = 0.0014, 95% CI: -0.0060 to 0.160) nor was the indirect (mediating) effect of female sexual satisfaction significantly different from zero (b = 0.0230, 95% CI: 0.0023 to 0.0597). There were no significant mediation effects for either male or female sexual satisfaction scores on relationship satisfaction and quality of life, failing to support the hypothesis (see Figure 2).

Mediating effects of sexual satisfaction on relationship satisfaction and female quality of life

A test of the mediation model hypothesized was conducted using the INDIRECT procedure (Preacher & Hayes, 2008). The independent variable was female relationship satisfaction, the dependent variable was female ratings of quality of life, and the hypothesized mediators were sexual satisfaction as rated by men and by women. Results found that the mediation model was partially supported. The indirect effect of male sexual satisfaction was significantly different from zero (b = 0.0177, 95% CI: 0.0045 to 0.0377.). However, the indirect (mediating) effect of female sexual satisfaction on quality of life was not significantly different from zero (b = 0.0021, 95% CI: -0.0130 to 0.0182), failing to support the hypothesis (see Figure 2).

Summary of Hypothesis 4b findings. The results suggest that for men, sexual satisfaction did not mediate the relationship between relationship satisfaction and quality of life, failing to support the hypothesis 4b. For women, male sexual satisfaction mediated the relationship between female relationship satisfaction and quality of life. Women's own ratings of sexual satisfaction, however, did not mediate the relationship between female relationship satisfaction and quality of life. These findings partially support the hypothesis 4b.

Hypothesis 4c: Mediating effects of 4a and 4b will be larger for men than for women

For Hypothesis 4a, the mediation model was not supported for either men or women, and since both mediating effects were essentially zero, no gender difference was present, failing to support the hypothesis. For Hypothesis 4b, there was a mediating effect of male sexual

satisfaction on the relationship between female relationship satisfaction and quality of life, but no mediating effect for men. However, since the confidence intervals of the significant mediating effect and the non-significant mediating effect overlap, there was no significant difference between men and women in the magnitude of their mediating effects. Overall, there was no greater mediating effect for men than for women, failing to support Hypothesis 4c.

Hypothesis 5 and 6:

Hypotheses 5 and 6 relate sexual frequency to four other variables: relationship satisfaction, quality of life, sexual satisfaction, and stress for men (Hypothesis 5) and women (Hypothesis 6). Due to the number of regressions used to test this hypothesis, a Bonferroni correction was made, dividing the overall alpha (.05) by four (the number of variables tested for each gender), to come up with a cutoff for statistical significance of $p \leq .012$ (.05/4 = .012). Thus, results will be considered statistically significant only if the *p* value for the test falls below .012.

Hypothesis 5a: For men, sexual frequency will be positively associated with relationship satisfaction

A hierarchical regression analysis was conducted to test hypothesis 5a for associations between sexual frequency and relationship satisfaction. In the first step, the covariate (relationship status) was entered to control for its effect on the DV (relationship satisfaction). This variable explained 8.9% of the variability ($R = .299$, F [1, 89] = 8.72, $p = .004$). In the second step, male sexual frequency scores were entered. The addition of this independent variable in the second step explained an insignificant amount of variability (0.5%) in relationship satisfaction (R^2 change = .005, F Change [1, 88] = .526, $p = .470$). In examining the coefficients,

it was found that none of the variables showed significant association with sexual frequency. These results demonstrate that there was no association between sexual frequency and male relationship satisfaction, failing to support the hypothesis (see Table 22).

Hypothesis 5b: For men, sexual frequency will be positively associated with overall quality of life

A hierarchical regression analysis was conducted to test Hypothesis 5b for associations between sexual frequency and overall quality of life. In the first step, the covariate (age of male) was entered to control for its effect on the DV (overall quality of life). This variable explained 5.1% of the variability (R = .225, F [1, 88] = 4.69, p = .033). In the second step, male sexual frequency scores were entered. The addition of this independent variable in the second step explained an insignificant amount of variability (0.3%) in relationship satisfaction (R^2 change = .003, F Change [1, 87] = .293, p = .590). In examining the coefficients, it was found that none of the variables showed significant association with sexual frequency. These results demonstrate that there was no association between male sexual frequency and men's overall quality of life, failing to support the hypothesis (see Table 23).

Hypothesis 5c: For men, sexual frequency will be positively associated with sexual satisfaction

As no covariate was needed, a linear regression analysis was conducted to test hypothesis 5c for male sexual satisfaction. Male sexual frequency scores were entered for its effects on the DV (sexual satisfaction). These two variables explained 15.9% of the variability (R = .399, F [1, 88] = 16.63, p = <.001) in sexual satisfaction for men. In examining the coefficients, a

significant negative association was found between sexual frequency and sexual satisfaction scores. Due to the fact that the sexual frequency variable was reverse coded (i.e. 1 = once a day or more, 8 = every six months or less), this relationship indicates that greater sexual frequency is associated with greater sexual satisfaction. These results demonstrate that there was a significant association between male sexual frequency and male sexual satisfaction, supporting the hypothesis (see Table 24).

Hypothesis 5d: For men, sexual frequency will be negatively associated with stress

A hierarchical regression analysis was conducted to test hypothesis 5d for associations between sexual frequency and stress. In the first step, the covariate (age of male) was entered to control for its effect on the DV (stress). This variable explained 5.7% of the variability (R = .240, F [1, 88] = 5.358, p = .023). In the second step, male sexual frequency scores were entered. The addition of this independent variables in the second step explained an insignificant amount of variability (0.1%) in stress (R^2 change = .001 F Change [1, 87] = .109, p = .742). In examining the coefficients, it was found that none of the variables showed a significant association with sexual frequency. These results demonstrate that there was no association between sexual frequency and male stress, failing to support the hypothesis (see Table 25).

Summary of Hypothesis 5 findings. Results demonstrate that for men, sexual frequency was not associated with their relationship satisfaction, quality of life, and stress, failing to support the Hypothesis 5a, 5b, 5d. However, male sexual frequency was significantly associated with men's sexual satisfaction, supporting Hypothesis 5c.

Hypothesis 6a: For women, sexual frequency will not be associated with sexual satisfaction

As no covariate was needed, a linear regression analysis was conducted to test Hypothesis 6 for female sexual satisfaction. Female sexual frequency scores were entered for its effects on the DV (sexual satisfaction). These two variables explained 27.9% of variability (R = .528, F [1, 87] = 33.678, p = <.001) in sexual satisfaction. In examining the coefficients, it was found that sexual satisfaction showed significant association with sexual frequency. These results demonstrate that female sexual frequency ratings were significantly associated with female sexual satisfaction ratings, suggesting as sexual frequency rate goes up, sexual satisfaction increases, failing to support the hypothesis (see Table 26).

Hypothesis 6b: For women, sexual frequency will not be associated with stress

As no covariate was needed, a linear regression analysis was conducted to test hypothesis 6b for female stress. Female sexual frequency scores were entered for its effects on the DV (stress). These two variables explained 5.8% of variability (R = .242, F [1, 87] = 5.389, p = .023) in the stress variable. However, due to the use of the Bonferroni correction (which requires a p value of .012 or less for significance) this was not considered statistically significant. In examining the coefficient, it was found that stress did not show a significant association with sexual frequency. These results demonstrate that female ratings of stress were not significantly associated with female sexual frequency ratings, supporting the hypothesis (see Table 27).

Hypothesis 6c: For women, sexual frequency will not be associated with overall quality of life

As no covariate was needed, a linear regression analysis was conducted to test hypothesis 6c for female quality of life. Female sexual frequency scores were entered for its effects on the DV (quality of life). These two variables explained 1.3% of variability (R = .113, F [1, 87] = 1.135, p = .290) in the quality of life variable. In examining the coefficient, it was found that female sexual frequency was not associated with female quality of life. These results demonstrate that female ratings of quality of life were not significantly associated with female sexual frequency ratings, supporting the hypothesis (see Table 28).

Hypothesis 6d: For women, sexual frequency will not be associated with relationship satisfaction

As no covariate was needed, a linear regression analysis was conducted to test hypothesis 6c for female relationship satisfaction. Female sexual frequency scores were entered for its effects on the DV (relationship satisfaction). These two variables explained .8% of variability (R = .090, F [1, 87] = .709, p = .402) in the relationship satisfaction variable. In examining the coefficient, it was found that sexual frequency was not associated with relationship satisfaction. These results demonstrate that female ratings of relationship satisfaction were not significantly associated with female ratings of sexual frequency, supporting the hypothesis (see Table 29).

Summary of Hypothesis 6 findings. The results demonstrate that for women, sexual frequency is significantly positively associated with their sexual satisfaction, failing to support Hypothesis 6a. However, for women, sexual frequency was not associated with their overall stress, quality of life, and relationship satisfaction, supporting Hypothesis 6b, 6c, and 6d.

CHAPTER 5

Discussion

This study examined the associations among sexual satisfaction, relationship satisfaction, individual stress, and quality of life in committed couples. In addition to examining the individual associations between these variables, this study also explored the degree to which sexual satisfaction mediates the association between relationship satisfaction, individual stress, and quality of life. Lastly, this study examined the possible gender differences between sexual frequency, relationship satisfaction, sexual satisfaction, and well-being (stress and quality of life) between men and women. These study findings will be reviewed and discussed in detail below.

Summary of Study Findings

Sexual Satisfaction and Relationship Satisfaction

The current study examined the association between sexual satisfaction and relationship satisfaction. The results demonstrated that men's relationship satisfaction was positively associated with sexual satisfaction, indicating that, for men, both of these variables moved in tandem (i.e. as sexual satisfaction increased, relationship satisfaction also increased). This finding is consistent with previous studies that have shown that greater sexual satisfaction was correlated with greater relationship satisfaction (Byers, 2005; Morokoff & Gillilland, 1993). Sprecher's (2002) longitudinal study with dating couples in a Midwestern university demonstrated a significantly positive correlation between sexual satisfaction and relationship satisfaction for both men and women. However, this correlation was stronger for men than for women. Similarly, Byers' (2005) study with 87 individuals in long-term relationships also

confirmed the current study's findings in that there was a clear association between sexual satisfaction and relationship satisfaction. The current study's findings support the assertion that sex is an integral part of relationship quality and relationship satisfaction, at least for men.

However, the current findings show that this relationship does not hold for women. The current study found that for women, relationship satisfaction was not associated with sexual satisfaction. One explanation for the discrepant finding may be due to the variability in the stage and status of the relationship. The current study included approximately 40% married couples and 60% exclusive, committed, or planning marriage couples. As Yabiku and Gager (2009) reported, cohabitors weighed sexual satisfaction more importantly than married couples. If the current study had been conducted with premarital couples only, the results may have been more consistent with prior literature.

Additionally, although Sprecher (2002) found a correlation between relationship satisfaction and sexual satisfaction for both genders, the association between sexual satisfaction and relationship satisfaction for women was borderline significant ($p = < .10$) in the fifth wave of her study. This result may partially be due to the decrease in her sample size (only 41% of the couples remaining by wave 5) or it may be due to the strength of the association between relationship satisfaction and sexual satisfaction weakening over time for women. Overall, a correlation was found between these variables; however, the strength of the association was stronger for men ($r = .54$) than for women ($r = .37$), with large to medium effect size. Sprecher's finding indicates that men's sexual satisfaction may have greater weight in men's relationship satisfaction, whereas for women, their relationship satisfaction may be less strongly influenced by their sexual satisfaction. Furthermore, Sprecher found that changes in sexual satisfaction

were generally not related to changes in relationship satisfaction for women, which supports the current study's findings for women.

Indeed, relationship status and the duration of the romantic relationship may have had an impact on the strength of the association between sexual satisfaction and relationship satisfaction, particularly for women in this study. However, could there be an evolutionary process involved in the differences between men and women with regard to sexual satisfaction and relationship satisfaction? From the evolutionary biology perspective, reproduction is a central concept in which a couple comes together to propagate the species (Buss, 1995; Buss, 1998). Men's evolutionary goal is to create offspring with as many partners as possible to ensure survival of their lineage. On the other hand, women look for a mate who will be a good provider and father to their offspring. From this perspective, sexual engagement for both men and women is purposeful, with the ultimate goal being reproduction.

In addition to reproductive goals, sexual and relational aims may be different for men and women. For men, their consistent sex drive and the gratification of that drive are associated with the quality of their relationship, whereas women may perceive emotional satisfaction derived from the relationship as being a separate variable from sexual satisfaction. If it can be assumed that women are more emotionally focused than men in romantic relationships, as self-in-relations theory suggests (further explanation will follow in the next section), a woman whose sexual drive parallels a man's may be threatening to the security of the relationship, as that may deflect their attention from the emotional aspects of the relationship. Therefore, women's perception of sexual and relationship satisfaction as being two disparate aspects of the romantic relationship may serve to protect the relationship. Although the majority of the couples participating in the study did not have children, evolutionary process theory provides a possible explanation for why

sexual satisfaction and relationship satisfaction were not associated for women in the current study, suggesting that evolutionary and emotional goals between the genders may play a role between relationship satisfaction and sexual satisfaction.

Relationship Satisfaction and Sexual Conflicts

The association between relationship satisfaction and sexual conflicts (disagreements about sex) was also examined in the current study. Results showed that there was a significant negative association between men's sexual conflicts and their ratings of relationship satisfaction-- as men's sexual conflicts increased, men's relationship satisfaction decreased.

In the current study, women's relationship satisfaction was negatively associated with men's sexual conflicts-- as men's sexual conflicts increased, women's relationship satisfaction decreased or as women's relationship satisfaction decreased, men's sexual conflicts increased. This suggests that women's knowledge or awareness of their male partner's sexual discontent was negatively correlated with women's relationship satisfaction. There were some important parallels between the current study's findings and Whiffen and Gotlib's (1989) study with 82 couples adjusting to pregnancy. Researchers found that when the husband was maritally distressed, the impact was felt by both partners, not just the husband alone. Specifically, wives of maritally distressed husbands reported lower levels of marital adjustment than wives of non-maritally distressed husbands. Conversely, husbands of maritally distressed wives did not report lower levels of marital adjustment. Similarly to the current study's findings in which women's relationship satisfaction was associated with men's sexual conflicts, Whiffen and Gotlib also found that wives' marital quality was negatively associated with their husbands' marital distress.

Examining these findings through the prism of gender development provides some insight into the association between women's relationship satisfaction and men's sexual conflicts. For example, according to Chodorow (1978), women's self-concept originates from their relationship with their mother**s**, in which concepts such as mutuality and relatedness are fostered and nurtured. Therefore, from early childhood, a woman's identity is developed within the relational matrix, in which her sense of self is understood within an interpersonal framework. Taking this concept one step further, it would suggest that relational ruptures may negatively impact her self-esteem and self-concept. Consequently, a woman may feel that relational conflicts are reflective of her inability to meet the needs of her partner and her failure to foster a nurturing relationship. From Chodorow's theoretical stance, a woman's happiness would be intricately interdependent with the happiness of others due to her self-in-relation framework. Therefore, if her partner were to be distressed about sexual frustrations, this would impact the woman's sense of self, her emotionality, and her capacity to be relationally gratified.

Women's concern with their partners' sexual conflicts can be further illuminated through the attachment theory. Bowlby's (1973) infant-parent attachment theory posited that there is an inherent biological need to create a relationship with an adult figure who will provide safety and protection necessary for survival. He postulated that the attachment system is sustained through three correlates: *proximity maintenance*, *safe haven*, and *secure base*. Being proximate to the caregiver increases the likelihood of the infant's survival by ensuring that his/her basic biological and physiological needs will be met. However, these needs cannot be gratified if the caregiver is either inaccessible or unavailable.

In infant-parent attachment, the relationship is primarily one-sided, with the caregiver providing care and security for the infant (Hazan & Shaver, 1994). In romantic relationships,

however, the expectation is that the partners will mutually engage in both providing and receiving caretaking from their partner. In a constrained relationship caused by sexual conflicts, the perceived lack of mutuality may indicate that each partner is not equally giving to the relationship, which may then heighten a sense of anxiety over the relationship. Therefore, problems in the relationship may activate fears of partner loss and relationship loss (separation anxiety and abandonment).

Furthermore, gender differences in attachment styles may provide some additional insight into women's relationship satisfaction being associated with men's sexual conflicts. While some researchers have found no gender differences in attachment styles (Feeney & Noller, 1990; Hazan and Shaver, 1994), other studies have found that women have more of a preoccupied attachment style and men have more of a dismissive style (Bartholomew & Horowitz, 1991; Feeney, 1999). Additionally, attachment styles and sexual patterns have been shown to be correlated (Birnbaum, 2010). In particular, research suggests that anxiously attached individuals tend to seek proximity through sex as a means to gain emotional intimacy, approval, and reassurance from their partner. On the other hand, individuals who have avoidant attachment style tend to sexually disengage from their partners as a means to gain emotional distance. This provides some explanation in terms of how attachment styles may be affecting the way that partners sexually engage as a way to either gain emotional intimacy or distance. Moreover, the findings on the gender differences in attachment style parallel the results from observational studies on couples' conflict resolution studies, where women tended to initiate and engage in the conflict dialogue, whereas men tended to avoid the discussion. From this perspective, women would be potentially more preoccupied by their partner's distress, affecting their relationship satisfaction.

Neurological studies provide further clarification on the intricate romantic attachment system. Specifically, at the beginning and in long term romantic relationships, there is neural activity in the ventral tegmental and dorsal striatum areas, which are part of the dopamine rich reward system and basal ganglia system (Schneiderman, Zagoory-Sharon, Leckman, & Feldman, 2012). Additionally, these particular neuronal areas are populated with oxytocin receptors. Oxytocin is a hormone associated with pair bonding, social behaviors, and parental attachment across a variety of species, including monogamous mammals. Some of these behaviors include eye-gazing, trust, social recognition, increased communication, and empathy (Schneiderman, Zagoory-Sharon, Leckman, & Feldman, 2012).

Fisher and her colleagues (2004) also found increased activity in the caudate nucleus in romantic relationships, which is associated with features of the brain's "reward system" such as arousal, pleasure, and motivation to acquire more rewards. According to Fisher (1998), lust and attachment are involved in different emotion-motivation system**s** and neurological correlates. Lust is correlated with the hormone testosterone in both men and women, whereas romantic love is associated with dopamine (natural stimulant) and norepinephrine. Dopamine and norepinephrine are associated with energy, motivation to seek reward, and feelings of elation. Attachment is correlated with hormones oxytocin and vasopressin, which are thought to be involved in pair-bonding. The hormones associated with lust and attachment appears to have an inverse relationship, where high levels of testosterone decrease attachment and high levels of oxytocin and vasopressin decrease lust.

For women, stress elicits a "tend-and-befriend" response, which is related to the activation of the limbic system involved in the attachment and care-giving process (Verma, Balhara, & Gupta, 2011). Therefore, women's anxiety about their partner's sexual conflicts

would tend to induce anxiety about the relationship and a desire to repair the presumed rupture in the relationship. Additionally, sexual conflicts may induce anxiety about the security of their pair bonding and fears of attachment loss. The question that arises from this perspective is, if in fact women could gain more emotional security by reducing their partners' sexual upset, what might be stopping them from engaging more sexually with their partner?

Individual Stress and Sexual Conflicts

In the current study, the association between stress and sexual conflicts was examined. Results found that men's ratings of sexual conflicts were significantly positively associated with stress-- as men's sexual conflicts escalated, their stress rose as well. Biological research on stress has been shown to impact the areas of physiological health and psychological conditions. Men's stress elicits a fight-or-flight response, which is correlated with an increase in catecholamine levels and the activation of the RPFC (Right Parieto-Frontal Cortex) and LOrFC (Left Orbitofrontal Cortex) (Kiecolt-Glaser & Newton, 2001, Verma, Balhara, Gupta, 2011). These two neurological systems are involved in negative and positive emotions, vigilance, and hedonistic goals (Verma, Balhara, Gupta, 2011). Therefore, sexual conflicts may heighten men's awareness of the problem, and thereby further exacerbate the issues of sexual conflicts and increase stress. The activation of these neurological systems when distressed may be one of the reasons why men tend to be avoidant during conflict discussions, as was found in marital process observational studies. Avoidance may be a strategy utilized to modulate their level of stress. Psychological symptoms of stress can include mood disturbances and sexual dysfunction (Morokoff & Gilliland, 1993; Randall & Bodenmann, 2009).

The finding of Bodenmann, Ledermann, and Bradbury (2007) is similar to the current study's results on stress and sexual conflicts. They found that couples reporting elevated levels of stress stemming from outside the dyad (i.e. daily stress) also reported elevated levels of relationship stress within the dyad. The authors also found that couples experiencing relational stress reported lower sexual satisfaction and increased levels of sexual dysfunction. Although sexual dysfunction is not the same construct as sexual conflict (as assessed in the current study) these variables both pertain to sexual functioning within the couple relationship as it relates to stress, which provides another window into the couple dynamic involving these elements.

In contrast, women's stress was not associated with their sexual conflicts, indicating that women's stress and sexual conflicts were unrelated variables. However, if the current study had investigated the relationship between dyadic relational stress and sexual conflicts, a correlation may have been found. Again, the results suggest that there may be gender-specific considerations that may be critical in explaining these associations.

Individual Stress and Sexual Satisfaction

The association between individual stress and sexual satisfaction within a couple was examined in the current study. Results showed a significant negative association between men's sexual satisfaction and women's stress. For example, as men's sexual satisfaction decreased, women's stress increased. The results suggest that women's stress is influenced by their partners' sexual dissatisfaction, which is consistent with the premise that women may be more vulnerable than men to the distress of others in their social environment (Whiffen & Gotlib, 1989). Therefore, men's sexual dissatisfaction may negatively impact women's stress levels to a greater degree than does women's own sexual satisfaction/dissatisfaction. But again, if women

are more aware and more upset by their partner's distress, why would they not engage in more sex?

Consistent with the findings from the current study, Bodenmann et al. (2007) found that couples experiencing dyadic conflicts tended to have lower levels of sexual satisfaction. The researchers also found that in regard to women's outcomes, men's report of external stress covaried more strongly with women's daily relationship tension. Conversely, for men's outcomes, women's report of external stress did not impact men's experience of daily relationship tension. Bodenmann et al.'s (2007) finding shows that women's experience of stress is exacerbated by their partner's stress, which is consistent with the current study's finding of women's stress being associated with men's lowered sexual satisfaction. The findings on women's stress are consistent with the premise that stress is a dyadic phenomenon and that women are more sensitive to conflicts as evidenced by a greater degree of immune and physiological impairment, in comparison to men (Kiecolt-Glaser, Glaser, Cacioppo, Malarkey, 1998; Kiecolt-Glaser, Malarkey, Chee, Newton, Cacioppo, & Mao et al., 1993).

Undoubtedly, men's sexual dissatisfaction could cause stress in the dyad. Sexual problems often create sexual anxieties, distance, and a sense of deprivation, which contribute to relationship distress (Johnson & Zuccarini, 2010). Previous studies showed that women react to relationship conflict with greater stress (Kessler & McLeod, 1984; Whiffen & Gotlib, 1989). For example, research on the impact of conflict problem-solving discussions between the members of a dyad demonstrated that immune and physiological impairment was greater in women than in men (Kiecolt-Glaser, Glaser, Cacioppo, & Malarkey, 1998; Kiecolt-Glaser, Malarkey, Chee, Newton, Cacioppo et al., 1993). Specifically, research has indicated that female sex hormones contribute to reduced or delayed management of the stress response (Verma, Balhara, Gupta,

2011), thereby both potentially prolonging the stress response and also decreasing the woman's ability to manage the stress.

Prior research supports the finding that men's lowered sexual satisfaction may exacerbate women's experience of stress, which may be biologically and physiologically driven. Consistent with the previous research, the current findings suggest that women's stress may be more sensitive to men's lowered sexual satisfaction, whereas this relationship did not hold for men.

Quality of Life & Sexual Conflicts

In this study, the association between overall quality of life and sexual conflicts was examined. The results showed that men's quality of life was negatively associated with their rating of sexual conflicts. For example, as sexual conflicts increased, men's quality of life decreased. The current study's findings were consistent with Laumann, Paik, and Rosen's (1999) study on sexual dysfunction in the United States**,** which showed an association between sexual dysfunction/problem (either due to physiological or psychological factors) and poor quality of life for both men and women. They found that sexual dysfunction was highly associated with negative experiences in sexual relationships and overall well-being. Additionally, while the association between their own sexual dysfunction and quality of life was present for both men and women, the negative outcomes of sexual dysfunction appeared to be stronger for women than for men. In the current study, women's quality of life was not associated with sexual conflicts. One possible explanation for the disparity is demographic factors, such as sample size. The current sample consisted of 92 couples in committed relationships, whereas the Laumann, Paik, and Rosen's sample included 1,410 men and 1,749 women of varied relationship status. Additionally, the differences in the characteristics of the

current sample in comparison to the aforementioned study may have played a role in the results. While differences in sample size and the differences in the characteristics of the sample may be confounding the findings, it is also possible that a gender difference in this relationship exists.

Mediating Effects of Sexual Satisfaction on Relationship Satisfaction, Stress, and Quality of Life

The mediating effects of sexual satisfaction between relationship satisfaction and stress were examined in the current study. Mediation explains the ways in which two variables may be indirectly related. Results from the current study showed that there were no mediating effects of sexual satisfaction on men's and women's relationship satisfaction and stress. Therefore, sexual satisfaction did not have an indirect impact on relationship satisfaction and stress. Sexual satisfaction also did not have a mediating effect on men and women's relationship satisfaction and quality of life.

The current study's findings are inconsistent with Harper et al. (2000) who reported that intimacy (sex being one of the domains) has a significant mediating effect on the negative association between daily hassles (stress) and marital quality. The discrepancy in the findings between these two studies may be multilayered. Harper et al.'s sample included couples in later life marriages, in which the average age of the husbands was about 64 and the average age of the wives was about 61. In the current study's sample, the average age of the men was about 30 and the average age of the women was about 28. In addition, Harper et al. included a much larger sample of 472 individuals from a random sample from all 50 states, whereas the current study's much smaller sample was recruited from within the New York area. The most notable area of difference that may have had a significant impact on the findings was the average duration of the

marriage, which in the Harper et al.'s sample was about 34 years. The current sample included both premarital and marital couples with the average amount of time with their partner being about 3 years. The differences between this study's population and Harper's population suggest some confounding variables, particularly the duration of the relationship (34 vs. 3 years), which could also include age and health differences, among others. Lastly, the paradigm of "intimacy" in their study included many types of intimacy, among them social, emotional, sexual, recreational, and intellectual, whereas the current study focused solely on sexual intimacy. All of these differences in the demographics, which created quite distinct samples, may have created the discrepancy in these findings.

However, for younger, newer, and more urban couples represented in the current sample, sexual satisfaction did not mediate the association between relationship satisfaction, stress, and quality of life. The lack of mediation between these variables may be due to several factors. As research in marital trajectory has shown, marital satisfaction decreases over time. In the current study, the couples were in the early stages of their committed relationship and non-distressed enough to meet the requirements to participate in the study. Therefore, sexual satisfaction in these couples, who were closer to the beginning stage of their relationship, may have had less of an impact on the relationship satisfaction, stress, and quality of life, as there are fewer accumulated negative experiences contributing to lowered marital satisfaction (Umberson et al., 2005). Therefore, it is possible that sexual satisfaction may have a greater mediating power in couples who are more maritally distressed, as sex may play a larger role in providing a physiological release in the distressed versus the non-distressed couples.

Sexual Frequency & Relationship Satisfaction

The relationship between sexual frequency and relationship satisfaction was examined in the current study. The results showed that for both men and women, sexual frequency was not associated with their relationship satisfaction. This finding contradicts prior literature that found that marital satisfaction was highly associated with sexual activity (Call, Sprecher, & Schwartz, 1995; Morokoff & Gillilland, 1993). Similarly, Yabiku and Gager (2009) found that higher sexual frequency was significantly negatively correlated with relationship dissolution, more strongly for cohabiting couples than married couples.

The discrepancy between the current findings and the previous studies may be partially due to sample size. For example, in the Call, Sprecher, and Schwartz's (1995) study, the sample included 6,785 married individuals. Yabiku and Gager's (2009) study included 5,440 marital couples and 462 cohabiting couples. In Morokoff and Gillilland's (1993) study, the sample included 165 married men and women, which is actually a smaller sample size than the current study of 92 couples.

However, there is an additional explanation for the current study's findings. Some researchers suggest that it is the quality of the sexual interaction as opposed to the frequency of sexual engagement that may have greater impact on the relationship (Christopher & Sprecher, 2000). Additionally, both the *age* of the participants and the *duration* of the time in which the participants have been in the committed relationship may also have been factors on the lack of significant association between sexual satisfaction and sexual frequency. As Fisher (2004) points out, the duration of romantic passion lasts approximately seven months, which would exclude the majority of the current sample, assuming that romantic passion would both fuel and increase sexual frequency. Overall, the results from the current study, which indicated that

sexual frequency was not associated with relationship satisfaction, did not parallel previous findings.

Sexual Frequency & Quality of Life

The association between sexual frequency and the overall quality of life was also examined. The findings showed that neither men nor women's sexual frequency was associated with overall quality of life. There has been a paucity of research on the association between sexual frequency and quality of life; therefore, it was difficult to ascertain the meaning of the current finding in the context of prior literature.

Sexual Frequency & Stress

In the current study, the association between sexual frequency and individual stress was examined. Results showed that men's sexual frequency was not associated with stress. This finding is consistent with prior literature, which indicated that relatively maritally-satisfied men's sexual activity did not vary much due to their "daily hassles" (Bodenmann, Ledermann, & Bradbury, 2007)**,** and supports Fisher's (2004) assertion that men's sexual drive tends to be fairly constant.

Similarly, women's sexual frequency was not associated with stress. The current finding is both discrepant and partially consistent with Bodenmann, Ledermann, and Bradbury's (2007) study, which showed that there was no association between sexual frequency and stress in maritally satisfied women. In their study, for women who were one standard deviation below the mean of maritally satisfied women, sexual activity tended to decline with increasing levels of daily hassles.

In this study, both men's and women's sexual frequency appears unhampered by their stress, although chronic stress has been found to be associated with suppression of luteinizing hormone levels (hormones that trigger ovulation in females) and suppression of testosterone (Morokoff & Gillilland, 1993). Higher testosterone level is associated with elevated feelings of lust, which drives the behaviors to sexually engage with another (Fisher, 1998; Fisher, 2004; Fisher, Aron, Mashek, Li, & Brown, 2002). For a comprehensive review of neuropsychology of passionate love, see chapter by Hatfield and Rapson (2009).

Sexual Frequency & Sexual Satisfaction

The association between sexual frequency and sexual satisfaction was examined in the current study. Results demonstrated that both men's and women's sexual frequency was significantly associated with sexual satisfaction, indicating that as the rate of sexual frequency increased, sexual satisfaction also increased or vice versa. This is consistent with prior literature which found a positive correlation between sexual frequency and sexual satisfaction for both genders and that couples who were sexually satisfied tended to have more sex (McNulty & Fisher, 2008; Waite & Joyner, 2001; Yabiku & Gager, 2009).

Clinical Implications

Clinical implications from the results of the current study are multilayered in regard to future psychotherapeutic interventions. The results from the study suggest gender differences in the ways that men and women assess their relationship satisfaction. Generally, for men, their relationship satisfaction was more heavily influenced by the variables related to sex, whereas for women, their relationship satisfaction was more contingent on their partner's response to sex-

related variables, such as *men's* sexual conflicts as opposed to their own conflicts and stress. Essentially, men, more than women, judge the quality of the relationship by the frequency and quality of sex.

First, the results suggest that interventions and/or psychotherapy targeted to increase sexual satisfaction for men, and to decrease stress for women, may subsequently increase relationship satisfaction for the couple. As previous research on stress had indicated, there are adverse psychological and physiological responses to stress. Therefore, interventions targeting both physiological symptom relief as well as buffering emotional support may be beneficial. Increasing stress management skills through relaxation techniques (deep breathing, body scanning, grounding) and mindfulness exercises may help in decreasing anxiety and creating homeostasis in the body. Emotional support for a woman can be enhanced through supportive, empathic communication with her partner regarding her distress**,** utilizing speaker-listener techniques and learning how to read the social cues with the guidance of a therapist. Specifically, treatment focused on increasing affective attunement by learning to read the emotional cues that are exhibited behaviorally and nonverbally as well as improving communication by working through relational conflicts may increase relational satisfaction. Furthermore, understanding both the implicit and explicit communication underlying concerns may strengthen a couple's sense of attachment bond. In essence, integrating sex and attachment into the couple therapy may enhance both the physical and emotional satisfaction in the couple as advocated by Johnson and Zuccarini (2010).

Second, psychoeducation may also help alleviate couple distress and increase relationship satisfaction. For example, normalizing the developmental changes that occur in long-term committed relationships, such as changes in sexual desire and sexual frequency, may

decrease the tension related to a couple's sexual functioning. Additionally, providing and setting more realistic expectations in terms of sexual engagement with the respective partner would likely increase the possibility of a satisfied sexual union. Moreover, helping the couple to integrate a sense of adventure and newness into their sexual life by providing them with the appropriate resources might be helpful to the couple. Likewise, having more information about the ways in which stress manifests differently between the members of a couple, and the ways in which stress can be managed both individually as well as dyadically, may allow the couple to feel more hopeful and empowered about making changes to strengthen their relationship.

Third, communicating realistic expectations within the relationship would enhance an overall sense of mutuality as these needs would be discussed and negotiated within the dyad. Examining the origin of specific expectations, such as gender roles, through the family genogram could provide insight into the ways in which particular beliefs and schemas were transmitted from family of origin and how they may be impacting the current romantic relationship. Likewise, attitudes regarding sexual intimacy and being able to ask for and receive what each partner needs and wants may be crucial to explore. Additionally, a recognition and appreciation of these differences within the couple may be helpful in validating each partner's experience within the relationship. Negotiating and understanding of each other's needs would strengthen a sense of mutuality and commitment as well as foster a sense of partnership within the couple.

Study limitations

While the current study provides valuable and interesting findings, there are some limitations. For example, all the data from this study were obtained through self-report questionnaires. Although such questionnaires can provide rich data, the information is purely

subjective, whereas observational data would have provided nuanced behavioral exchanges between the couple that may not be captured through self-report measures, providing an added complexity and nuance to the couple dynamic.

Another limitation to the study was the variability in relationship stage and status. The current study included couples in different relationship stages-- for example, planning marriage, engaged, married, or cohabiting. The variability in the relationship status/stage is important, as some of the previous studies have shown that individuals who were married or living as married rated higher life satisfaction than those who were separated, divorced or widowed (Bailey & Snyder, 2007). Therefore, it is possible that the associations between the multiple variables would have yielded different results if the subjects had been separated into the respective categories of relationship status/stage.

Analogously, the data may have yielded different results in regard to sexual satisfaction and sexual frequency if the current study had been analyzed according to the different categories of relationship status (married, planning marriage/engaged, exclusively dating). In Yabiku and Gager's study (2009), the importance of sex and sexual frequency differed between the cohabiting couples and the married couples. Namely, the cohabiting couples' relationship success was more contingent on their sexual frequency. Specifically, the higher the sexual frequency, the better the likelihood of the relationship staying intact, and the lower the sexual frequency, the higher the likelihood of relationship dissolution. However, the researchers did not find this correlation for married couples (Yabiku & Gager, 2009). Thus, the current study's outcome may have been different if the data had been analyzed according to the different categories (i.e. married, planning marriage/engaged, exclusively dating).

Additionally, a caveat in examining the current study's findings is that the constructs used to measure sexual *satisfaction* and sexual *dissatisfaction* used in previous studies are different from the constructs of sexual *conflicts* which were used in the current study. Although the idea that having sexual conflicts may negatively affect the sexual satisfaction in couples is an intuitive concept, the measures of sexual conflicts may be examining something related but different from sexual satisfaction or dissatisfaction. Moreover, some of the sex variables that were being utilized were single question measures extrapolated from different questionnaires, and this too may have affected the results.

Another limitation to the current study is the cross-sectional nature of the design. Studying committed and satisfied partners longitudinally would provide insight into which variables play a key role in keeping a relationship intact at different phases in the relationship. Therefore, during the times when there is less romantic passion in the relationship, perhaps there is another variable that plays a stronger role during this particular phase. Additionally, other important variables, such as the presence of children, religious views, economic constraints, fears of ostracism and failure warrant further investigation to examine how these variables impact the couple relationship.

Lastly, all the participants in the current study were heterosexual couples, thereby narrowing the scope of understanding to this subgroup of pair bonds. In future studies, it would be important to include non-heterosexual couples in the study, which would provide a more representative sample of the couples in committed relationships.

Directions for Future Research

In terms of future research, it would be valuable to examine the above variables longitudinally with more explicit multidimensional conceptualizations as mentioned by Bradbury et al. (2002). For example, if marital satisfaction/dissatisfaction could be measured as separate but related concepts instead of two ends of a unidimensional construct, the results may be more representative of the real-life experience of the couples as well as provide more nuanced and detailed marital data. Utilizing Bradbury et al.'s conceptual hypothesis may lead to more clear hypotheses, conceptualization, and measurement of these variables.

Furthermore, more comprehensive and detailed sexual satisfaction measures that can be tracked over time to measure ebbs and flow of the couples' sexual life would provide more knowledge regarding differences in the ways new couples and more established couples engage in sexual intimacy. Therapists would be able to use such data for more specific and targeted tools in helping the couples revitalize their romantic passion and strengthen their attachment bond.

Because of the multiple findings in the current study regarding gender differences in terms of relationship satisfaction, sexual satisfaction/conflicts, stress, and quality of life, these relational domains are an area worthy of further examination. For example, if women are negatively affected by their partner's lack of sexual satisfaction, what may be getting in the way of women being more sexual with their partner? Could there be underlying dynamics between the partners that are being unconsciously expressed? Withholding affection, love, and sex can be an expression of discontent in the romantic relationship. While a woman may want to meet the needs of her partner, experiences of emotional deprivation may induce unconscious wishes to hurt or punish her partner through sexually withholding. A more detailed examination of the

unconscious processes related to sexual functioning of the couple would provide rich and nuanced information about their emotional inner life. Additionally, negotiation of power within a couple would illuminate the intricate give and take involved in the couple dynamic. Lastly, learning about the gender variability in all of these domains would illuminate the different aspects of a relationship that are important to each gender, which would be helpful in designing treatment goals for couples.

Conclusion

In summary, the current study's findings for men were similar to previous research findings. Men's relationship satisfaction was positively associated with sexual satisfaction and negatively associated with sexual conflicts. Additionally, men's stress was positively associated with sexual conflicts, whereas men's overall quality of life was negatively associated with sexual conflicts. As expected, and consistent with prior research, men's sexual frequency was associated with sexual satisfaction, indicating that as sexual frequency increased, men's sexual satisfaction increased.

On the other hand, some of the findings from the current study for women failed to confirm some of the previous research findings. For example, women's relationship satisfaction was not associated with their ratings of sexual satisfaction or with their own sexual conflicts. Instead, women's relationship satisfaction was negatively associated with *men's* sexual conflicts.

Similarly, women's stress was not associated with their own ratings of sexual conflicts or with their sexual satisfaction. Rather, women's stress was negatively associated with *men's* sexual satisfaction. Although women's ratings of sexual conflicts and sexual satisfaction were not associated with their own ratings of relationship satisfaction (which differed from previous

findings), examining these findings through the lens of gender development, attachment theory, and neuropsychology, provided a framework in which to understand these results.

Appendix A: Tables and Figures of Quantitative Results

Table 1

Demographic Data (N=184)

	Mean	Std. Deviation
Age of Male	30.10	6.98
Age of Female	27.99	7.11
Level of Education Male	15.52	2.01
Level of Education Female	16.03	2.18
Duration of time dated with partner	2.81	2.21
Duration of time known partner	3.56	2.71

Table 2

Demographic Data

Variable		Male (n = 91)	Female (n = 92)
		n (%)	*n* (%)
Ethnic Background	Caucasian	59 (64.8%)	59 (64.1%)
	African American	13 (14.3%)	11 (12.0%)
	Hispanic	12 (13.2%)	7 (7.6 %)
	Asian	3 (3.3%)	10 (10.9%)
	American Indian	3 (3.3%)	4 (4.3%)
	Missing	1 (1.1%)	1 (1.1%)
	Total	91 (100%)	92 (100%)
Employment	No	16 (17.4%)	17 (18.5%)
	Yes, part-time only	18 (19.6%)	32 (34.8%)
	Yes, full-time only	42 (45.7%)	37 (40.2%)
	Yes, full & part-time	16 (17.4%)	6 (6.5%)
	Total	92 (100%)	92 (100%)
Relationship Status	Exclusive dating/monogamous	30.10 (7.7%)	

Appendix A: Tables and Figures of Quantitative Results (continued)

Table 2

	Planning marriage	30 (33.0%)
	Committed but not married/engaged	18 (19.8%)
	Married	36 (39.6%)
	Total	91 (100%)
	1 Child	2 (2.2%)
	Total	92 (100%)

Note. Comparisons between male and female on these variables were not possible as they are dependent groups.

Table 3

Summary Statistics for the Overall Sample (N = 184)

Variables	N		Std.		
	Valid	Mean	Deviation	Skewness	Kurtosis
Male Relationship satisfaction	92	116.86	20.67	-.705	.70
Female Relationship satisfaction	92	117.29	18.48	.061	-.63
Male Sexual Conflicts	92	14.77	20.64	1.69	2.01
Female Sexual Conflicts	92	15.14	20.30	1.62	2.37
Male Sexual Intercourse Frequency w/ partner	91	3.02	1.31	.43	-.01
Female Sexual Intercourse Frequency w/ partner	89	2.99	1.42	.63	.73
Male Stress	92	.61	.49	1.47	2.38
Female Stress	92	.66	.44	1.36	3.59
Male Quality of Life adjusted	92	19.81	3.97	.21	.52
Female Quality of Life adjusted	92	21.38	3.48	-.20	-.26

Note. Quality of Life Index adjusted weighted scored based on satisfaction and importance.

Table 4

Transformed Data (N = 184)

	Mean	*SD*	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	*SE*	Statistic	*SE*
Male Sexual Conflicts	2.74	2.71	.63	.25	-.64	.50
Female Sexual Conflicts	2.74	2.78	.51	.25	-.94	.50
Male Stress	.72	.31	.38	.25	.13	.50
Female Stress	.76	.28	-.02	.25	.57	.50

Note. Square root transformations.

Table 5

Analysis of Variance for Male Ethnicity and Dependent Variables (N=91)

Scale	White (*n* = 59)		Black (*n* = 13)		Hispanic (*n* = 12)		Asian (*n* = 3)		American Indian (*n* = 3)		Other (*n* = 1)		ANOVA	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F (5,85)*	*p*
Total Relationship Satisfaction	116.91	19.12	111.54	26.07	118.67	25.56	111.00	18.68	127.00	11.36	138.00	.	0.57	.72
Total Sexual Conflict	15.15	19.66	16.15	25.75	12.92	24.07	8.33	7.64	21.67	25.66	10.00	.	0.16	.98
Total Stress	.62	.49	.50	.37	.63	.51	1.14	.94	.24	.26	.75	.	1.21	.31
Total Quality of Life Adjusted	19.76	4.28	20.73	3.16	20.56	3.43	16.09	2.02	18.78	4.49	18.70	.	0.80	.56
Sexual Satisfaction	6.70	7.25	8.15	6.23	6.85	8.16	8.00	6.25	6.17	7.69	12.50	.	0.22	.95

Note. Quality of Life Index adjusted weighted score based on satisfaction and importance.
*$p < .05$. **$p < .01$

Table 6

Analysis of Variance for Female Ethnicity and Dependent Variables (N =92)

Scale	White (*n* = 59)		Black (*n* = 11)		Hispanic (*n* = 7)		Asian (*n* = 10)		American Indian (*n* = 4)		Other (*n* = 1)		ANOVA	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F (5,86)*	*p*
Total Relationship Satisfaction	119.71	19.35	114.45	17.76	111.71	17.93	110.10	14.33	121.75	14.89	132.00	.	1.03	.41
Total Sexual Conflict	15.47	21.49	8.64	15.98	22.86	19.97	17.50	19.76	12.50	18.93	.00	.	0.57	.72
Total Stress	.67	.42	.54	.39	.62	.35	.82	.68	.47	.30	.81	.	0.60	.70
Total Quality of Life adjusted	21.63	3.53	22.58	2.20	18.51	3.20	20.47	3.24	22.02	5.43	19.83	.	1.52	.19
Sexual Satisfaction	9.38	6.06	8.77	9.16	4.57	11.73	8.35	5.13	7.13	11.32	9.00	.	0.62	.69

Note. Quality of Life Index adjusted weighted score based on satisfaction and importance.
*$p < .05$. **$p < .01$

Table 7

Pearson's Correlations for Age and Dependent Variables (N = 184)

	r (*p*)	
	Male Age	Female Age
Relationship Satisfaction	.03 (.76)	-.02 (.85)
Sexual Conflicts	.04 (.68)	-.11 (.30)
Total Symptoms of Stress Inventory	-.22 (.04)	-.09 (.41)
Total Quality of Life adjusted	.21 (.04)	.15 (.16)
Sexual Satisfaction	.14 (.18)	.11 (.31)

Note. Quality of Life Index adjusted weighted score based on satisfaction and importance.
*$p < .05$. **$p < .01$

Table 8

Analysis of Variance for Relationship Status and Dependent Variables (N = 184)

Variable	Gender	*F* (df, df)	*p*
Relationship Satisfaction	Male	3.56 (3, 87)	.02
	Female	1.01 (3, 87)	.37
Sexual Conflicts	Male	2.60 (3, 87)	.06
	Female	0.13 (3, 87)	.94
Stress	Male	0.92 (3, 87)	.43
	Female	1.54 (3, 87)	.21
Quality of Life adjusted	Male	2.12 (3, 87)	.10
	Female	0.22 (3, 87)	.88

Note. Quality of Life Index adjusted weighted score based on satisfaction and importance.
*$p < .05$. **$p < .01$

Table 9

Kruskal Wallace Test for Sexual Frequency and Sexual Satisfaction (N = 184)

Variable	Gender	Chi-Square	df	Asymp. Sig.
Sexual Frequency	Male	5.08	3	.17
	Female	2.20	3	.53
Sexual Satisfaction	Male	4.01	3	.26
	Female	3.14	3	.37

Note. Grouping variable = status of current relationship.

Table 10

Pearson's Correlations for Education Level with Dependent Variables (N = 184)

	Level of Education Male r (*p*)	Level of education female r (*p*)
Relationship satisfaction	-.01(.91)	.03 (.78)
Sexual Conflicts	.10 (.33)	.03 (.80)
Stress	-.03 (.76)	-.05 (.65)
Quality of Life adjusted	-.07 (.50)	.05 (.63)

Note. Quality of Life Index adjusted weighted score based on satisfaction and importance.

Table 11

Spearman's Correlations for Education Level and Dependent Variables (N = 184)

Variable	Gender	r (*p*)
Sexual Frequency	Male	.01 (.93)
	Female	.07 (.55)
Sexual Satisfaction	Male	.09 (.41)
	Female	-.90 (.40)

*Correlation is significant at the 0.01 level (2-tailed).

Table 12

Pearson's Correlations for Time Known Partner with Dependent Variables (N = 184)

Variable	Gender	r (*p*)
Relationship Satisfaction	Male	.19 (.07)
	Female	.10 (.30)
Sexual Conflicts	Male	-.14 (.19)
	Female	.07 (.50)
Symptoms of Stress Index	Male	.04 (.68)
	Female	.09 (.38)
Quality of Life Index adjusted	Male	.11 (.30)
	Female	.12 (.26)

Note. Quality of Life Index adjusted weighted score based on satisfaction and importance.

Table 13

Spearman's Correlations for Time Known Partner and Dependent Variables (N = 184)

Variable	Gender	Time Known Partner r (*p*)
Sexual Satisfaction (QLI #13)	Male	.02 (.880)
	Female	-.14 (.170)
Sexual Frequency	Male	.31 (.003)
	Female	.43 (<.001)

*$p < .05$. **$p < .01$

Table 14

Analysis of Variance for Male & Female Employment Status and Dependent Variables (N = 184)

Variable	*F* (df, df)	*p*
Relationship satisfaction Male	2.03 (3, 88)	.12
Relationship satisfaction Female	1.17 (3, 88)	.33
Sexual Conflicts Male	0.81 (3, 88)	.49
Sexual Conflicts Female	0.38 (3, 88)	.77
Stress Male	0.67 (3, 88)	.57
Stress Female	0.62 (3, 88)	.60
Quality of Life adjusted Male	1.91 (3, 87)	.13
Quality of Life adjusted Female	1.49 (3, 88)	.22
Sexual Satisfaction Male	1.12 (3, 88)	.35
Sexual Satisfaction Female	0.30 (3, 88)	.83

Note. Quality of Life Index adjusted weighted score based on satisfaction and importance.
*$p < .05$. **$p < .01$

Table 15

Intercorrelations for Dependent Variables

Variable	*r (p)*
Relationship satisfaction	0.66 (<.001)
Quality of Life	0.40 (<.001)
Stress	0.02 (.857)
Sexual Conflicts	0.68 (<.001)
Sexual Satisfaction [a]	0.51 (<.001)

[a]. Spearman's correlation.

Table 16

Hierarchical Regression Analysis Predicting Relationship Satisfaction for Men (N = 184)

		Coefficients					
Step	Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
1	Relationship Status	23.14	7.84	.30	2.30	.004	.30
2	Relationship Status	14.11	6.87	.18	2.05	.043	.18
	Male Sexual Satisfaction	1.22	.36	.41	3.40	.001	.29
	Female Sexual Satisfaction	-.26	.31	-.08	-.83	.409	-.07
	Male Sexual Conflicts	-2.57	.94	-.33	-2.74	.007	-.24
	Female Sexual Conflicts	1.50	.88	.20	1.71	.091	.15

R^1 = .30, F (1, 89) = 8.70, p = .004 for step 1; R^2_{change} = .283, F_{change} (4, 85) = 9.58, p = .004 for step 2.

Table 17

Linear Regression Analysis Predicting Relationship Satisfaction for Women (N = 184)

	Coefficients					
Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
Male Sexual Satisfaction	.10	.36	.04	.27	.79	.03
Female Sexual Satisfaction	.40	.31	.15	1.28	.20	.12
Male Sexual Conflicts	-2.22	.93	-.33	-2.39	.02	-.23
Female Sexual Conflicts	-.07	.86	-.01	-.08	.94	-.01

$R = .447$, $F(4, 86) = 5.38$, $p = .001$

Table 18

Hierarchical Regression Analysis Predicting Stress for Men (N = 184)

		Coefficients					
Step	Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
1	Age of Male	-.010	.005	-.236	-2.29	.025	-.236
2	Age of Male	-.012	.005	-.262	-2.48	.015	-.25
	Male Sexual Satisfaction	.004	.006	.092	0.63	.529	.07
	Female Sexual Satisfaction	.003	.005	.065	0.51	.609	.05
	Male Sexual Conflict	.035	.017	.307	2.09	.040	.21
	Female Sexual Conflict	-.001	.015	-.008	-0.06	.954	-.01

R^1 = .236, F (1, 89) = 5.23, p = .025 for step 1; R^2_{change} =.057, F_{change} (4, 85) = 1.36, p = .26 for step 2.

Table 19

Linear Regression Analysis Predicting Stress for Women (N = 184)

	Coefficients					
Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
Male Sexual Satisfaction	-.012	.006	-.295	-2.03	.045	-0.21
Female Sexual Satisfaction	-.006	.005	-.156	-1.23	.222	-0.13
Male Sexual Conflict	-.013	.015	-.129	-0.89	.377	-0.09
Female Sexual Conflict	-.011	.014	-.106	-0.76	.449	-0.08

R = .288, F (4, 86) = 1.95, p = .109

Table 20

Hierarchical Regression Analysis Predicting Quality of Life for Men (N = 184)

		Coefficients					
Step	Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
1	Age of Male	.006	.085	.011	.071	.943	.007
	Age of Female	.166	.083	.299	1.997	.049	.192
2	Sexual Conflict Male	-.606	.177	-.412	-3.421	.001	-.330
	Sexual Conflict Female	.169	.174	.118	.972	.334	.094

R^1 = .276, F (2, 88) = 3.62, p = .031 for step 1; R^2_{change} =.125, F_{change} (2, 86) = 6.76, p = .002 for step 2.

Table 21

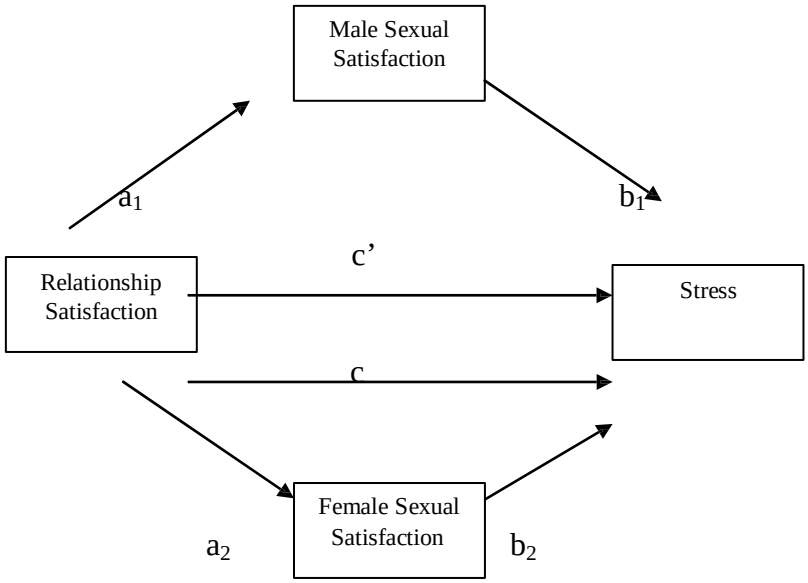
Linear Regression Analysis Predicting Quality of Life for Women (N = 184)

	Coefficients					
Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
Male Sexual Conflicts	-.203	.158	-.160	-1.304	.196	-.129
Female Sexual Conflicts	-.301	.153	-.240	-1.960	.053	-.194

R = .129, F (2, 89) = 6.58, p = .002

Figure 1

Hypothesized Mediation Model 1

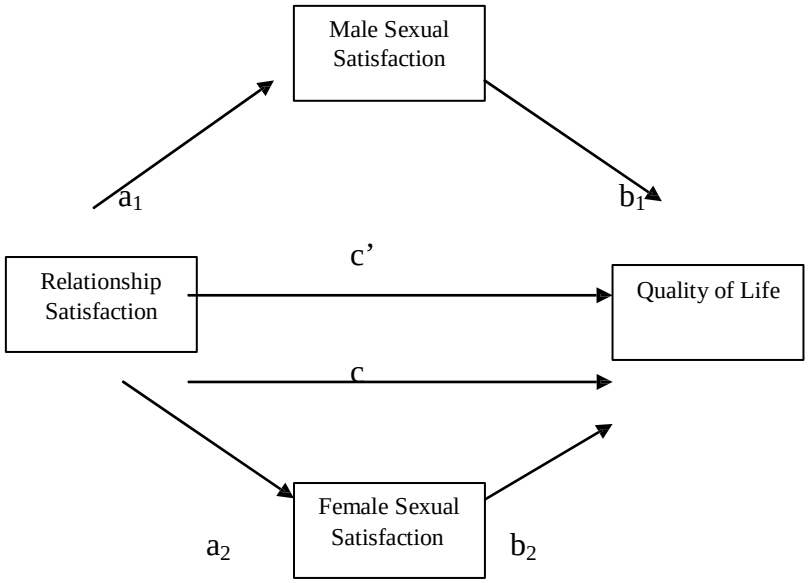


Total effect = Direct Effect + Total Indirect Effect

= Direct Effect + Specific Indirect Effect 1 + Specific Indirect Effect 2

Figure 2

Hypothesized Mediation Model 2



Total effect = Direct Effect + Total Indirect Effect

= Direct Effect + Specific Indirect Effect 1 + Specific Indirect Effect 2

Table 22

Hierarchical Regression Analysis for Relationship Satisfaction and Sexual Frequency for Men

		Coefficients					
Step	Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
1	Male Relationship Status	22.44	7.93	.289	2.830	.006*	.287
2	Male Sexual Frequency	-1.250	1.723	-.074	-.725	.470	-.074

R^1 = .299, F (1, 89) = 8.72, p = .004 for step 1; R^2_{change} =.005, F_{change} (1, 88) = .526, p = .470 for step 2.
* $p \leq .012$, the Bonferroni corrected alpha cutoff.

Table 23

Hierarchical Regression Analysis for Overall Quality of Life and Sexual Frequency for Men

		Coefficients					
Step	Variable	*B*	*SEB*		*t*	*P*	*semipartial r* r_{sp}
1	Male Age	.124	.061	.216	2.039	.045	.213
2	Male Sexual Frequency	-.187	.345	-.057	-.541	.590	-.056

R^1 = .225, F (1, 88) = 4.69, p = .033 for step 1; R^2_{change} =.003, F_{change} (1, 87) = .293, p = .590 for step 2.
* $p \leq .012$, the Bonferroni corrected alpha cutoff.

Table 24

Linear Regression Analysis for Sexual Frequency and Sexual Satisfaction for Men

	Coefficients					
Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
Male Sexual Frequency	-2.301	.564	-.399	-4.078	<.0001*	-.399

R = .399, F (1, 88) = 16.63, p = < .001*.
* $p \leq .012$, the Bonferroni corrected alpha cutoff.

Table 25

Hierarchical Regression Analysis for Sexual Frequency and Stress for Men

		Coefficients[a]					
Step	Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
1	Age of Male	-.011	.005	-.240	-2.315	.023	-.240
2	Male Sexual Frequency	.009	.027	.035	.330	.742	.034

[a]. Dependent variable stress squared root transformed.
R^1 = *.240, F (1, 88)* = 5.358, p = *.023* for step 1; R^2_{change} =.001, F_{change} (1, 87) = .109, p = .742 for step 2.
* $p \leq .012$, the Bonferroni corrected alpha cutoff.

Table 26

Linear Regression Analysis Predicting Sexual Satisfaction for Women

	Coefficients[a]					
Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
Sexual Frequency	-2.962	.510	-.528	-5.803	<.001*	-.528

[a]. Dependent variable sexual satisfaction.
R =.528, F (1, 87) = 33.68, p = <.001.
* $p \leq .012$, the Bonferroni corrected alpha cutoff.

Table 27

Linear Regression Analysis Predicting Stress for Women

	Coefficients[a]					
Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
Sexual Frequency	.053	.023	.242	2.321	.023	.242

[a]. Dependent variable stress transformed.
R = .242, F (1, 87) = 5.389, p = .023.
* $p \leq .012$, the Bonferroni corrected alpha cutoff.

Table 28

Linear Regression Analysis Predicting Quality of Life for Women

	Coefficients[a]					
Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
Sexual Frequency	-.312	.293	-.113	-1.065	.290	-.113

[a]. Dependent variable Quality of Life Index.
R =.113, F (1, 87) = 1.135, p = .290.
* $p \leq .012$, the Bonferroni corrected alpha cutoff.

Table 29

Linear Regression Analysis Predicting Relationship Satisfaction Women

	Coefficients[a]					
Variable	*B*	*SEB*		*t*	*p*	*semipartial r* r_{sp}
Sexual Frequency	-1.325	.1.574	-.090	-.842	.402	-.090

[a]. Dependent variable relationship satisfaction.
R =.090, F (1, 87) = .709, p = .402.
* $p \leq .012$, the Bonferroni corrected alpha cutoff.

Appendix B: Tables of Measures

Table 30

Locke Wallace Relationship Measure (MAT)

(Locke, H.J., Wallace, K.M., 1959)

Couple #: _____ Gender: Male_____ Female_____

1. Please check the dot on the scale below which best describes the degree of happiness, everything considered, of your present relationship. The middle point, "happy", represents the degree of happiness which most people get from their relationships, and the scale gradually ranges on one side to those few who are very unhappy in their relationships, and on the other, to those few who experience extreme happiness in their relationships.

0 2 7 15 20 25 35

o----------o----------o----------o----------o----------o----------o

Please state the approximate extent of agreement or disagreement between you and your partner on the following items. Please check one column for each item.

	Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree
2. Handling	*5*	*4*	*3*	*2*	*1*	*0*

Finances						
3. Matters of recreation	*5*	*4*	*3*	*2*	*1*	*0*
4. Demands affection	*8*	*6*	*4*	*2*	*1*	*0*
5. Friends	*5*	*4*	*3*	*2*	*1*	*0*
6. Sex relations	*15*	*12*	*9*	*4*	*1*	*0*
7. Conventionality	*5*	*4*	*3*	*2*	*1*	*0*
8. Philosophy of life	*5*	*4*	*3*	*2*	*1*	*0*
9. Dealing with Relatives	*5*	*4*	*3*	*2*	*1*	*0*

10. When disagreements arise, they usually result in:

(a) You giving in *1* (b) Your partner giving in (c) Agreement by mutual give and take *10*

11. Do you and your partner engage in outside interests together?

(a) All of them *1* (b) Some of them *8* (c) Very few of them *3 (d)* None of them *0*

12. In leisure time do you generally prefer: (a) To be “on the go” (b) To stay home

Does your partner prefer: (a) To be “on the go” (b) To stay home

If both answer “at home” = *10;* if both answer “on the go” = *3;* if different = *2*

13. Do you confide in your partner? (a) Almost never *0* (b) Rarely *3* (c) In most things *8*

(d) In everything *15*

Answer the following only if you are married or planning to marry your partner:

14. Do you ever wish you had not married your partner (or planned marriage)?

(a) frequently *0* (b) Occasionally *3* (c) Rarely *8* (d) Never *15*

15. If you had your life to live over, do you think you would? (a) Marry (or plan to marry) your current partner *15* (b) Marry (or plan to marry) a different person *8* (c) Not marry (or plan to marry) at all

Table 31

Relationship Agendas Protocol

Consider the list below of issues that all relationships face. Please rate how much of a problem each area currently is in your relationship by writing a number form 0 (not at all a problem) to 100 (a severe problem). For example, if "children" were somewhat of a problem, you might enter 25 next to "children". If "children" were not a problem in your relationship, you might enter a 0 next to "children." If "children" were a severe problem, you might enter 100. If you wish to add other areas not included in our list, please do so in the blank space provided. Please be sure to rank all areas.

____MONEY	_____RECREATION	_____JELOUSLY
____DAILY/WEEKLY SCHEDULES	_____COMMUNICATION	_____RELIGION
_____FREINDS	_____PACE DIFFERENCES BETWEEN PARTNERS	_____TIME TOGETHER VS. TIME APART
_____IN-LAWS	_____CHILDREN	_____ALCOHOL & DRUGS
_____SEX	_____DIFFERENCES IN TIME PERSPECTIVES	_____CAREER
_____MANAGING TIME	_____OTHER	

Table 32

University of Washington

Quality of Life Index

Part 1*

(Domain Satisfaction)

For each of the following, please choose the answer that best describes how satisfied you are with that area of your life. If none of the answers fit exactly, pick the answer that comes closest for how satisfied you are.

Please mark your answer by circling the number. Please try to answer all the question that apply to you.

There are no right or wrong answers.

HOW SATISFIED ARE YOU WITH:	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
_____1. your health?	1	2	3	4	5	6
_____2. the health care you are receiving?	1	2	3	4	5	6
_____3. the amount of chest pain that you have?	1	2	3	4	5	6
___ ___ 4. your ability to breathe without having shortness of breath?	1	2	3	4	5	6
_____5. the amount of energy you have for everyday activities?	1	2	3	4	5	6
___ ___ 6. your physical independence (ability to do things for yourself, get around)?	1	2	3	4	5	6
_____7. the mount of control you have over your life?	1	2	3	4	5	6
_____8. your potential to live a long time?	1	2	3	4	5	6
_____9. your family's health?	1	2	3	4	5	6
_____10. your children?	1	2	3	4	5	6
_____11. your family's happiness?	1	2	3	4	5	6
_____12. your relationship with your spouse/significant other?	1	2	3	4	5	6
_____13. your sex life?	1	2	3	4	5	6
_____14. your friends?	1	2	3	4	5	6

HOW SATISFIED ARE YOU WITH:	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
_____15. the emotional support you get from others?	1	2	3	4	5	6
___ ___ 16. your ability to meet family responsibilities (things you have to do for your family)?	1	2	3	4	5	6
_____17. your usefulness to others?	1	2	3	4	5	6
_____18. the amount of stress or worries in your life?	1	2	3	4	5	6
_____19. your home (furniture, house or apartment)?	1	2	3	4	5	6
_____20. your neighborhood?	1	2	3	4	5	6
_____21. your standard of living?	1	2	3	4	5	6
_____22. the overall conditions in the United States?	1	2	3	4	5	6
_____23. your influence on local, state and national government?	1	2	3	4	5	6
_____24. your job (if employed)?	1	2	3	4	5	6
_____25. not having a job (if unemployed, retired or disabled)?	1	2	3	4	5	6
_____26. your education?	1	2	3	4	5	6
_____27. your financial independence?	1	2	3	4	5	6
_____28. your leisure time activities?	1	2	3	4	5	6
_____29. your ability to travel on vacations?	1	2	3	4	5	6
_____30. your potential for a happy old age/retirement?	1	2	3	4	5	6
_____31. your peace of mind?	1	2	3	4	5	6
_____32. your personal faith in God?	1	2	3	4	5	6
_____33. your achievement of personal goals?	1	2	3	4	5	6
_____34. your happiness in general?	1	2	3	4	5	6
_____35. your life in general?	1	2	3	4	5	6
_____36. your personal appearance?	1	2	3	4	5	6

HOW SATISFIED ARE YOU WITH:	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
_____37. yourself in general?	1	2	3	4	5	6

Table 33

SYMPTOMS OF STRESS INVENTORY
A Self Assessment

THIS QUESTIONAIRE IS DESIGNED TO MEASURE THE DIFFERENT WAYS PEOPLE RESPOND TO STRESSFUL SITUATIONS. IN THE BOOK ARE SETS OF QUESTIONS DEALING WITH VARIOUS PHYSICAL, PSYCHOLOGICAL AND BEHAVIORAL RESPONSES. WE ARE PARTICULARLY INTERESTED IN THE FREQUENCY WITH WHICH YOU MAY HAVE EXPERIENCED THESE STRESS RELATED SYMPTOMS DURING THE PAST _____

Check one:
( ) Screening ( ) Exit ( ) 6 Month ( ) 1 Year

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UNIVERSITY OF WASHINGTON

PLEASE CIRCLE THE MOST APPROPRIATE RESPONSE TO EACH QUESTION.

SOMETIMES PEOPLE UNDER STRESS EXPERIENCE A VARIETY OF PHYSICAL RESPONSES. DURING THE DESIGNATED PERIOD HAVE YOU BEEN BOTHERED BY:	Never	Infrequently	Sometimes	Often	Very Frequently
1. *Flushing of your face*.....	0	1	2	3	4
2. *Sweating excessively even in cold weather*.....	0	1	2	3	4
3. *Severe itching*	0	1	2	3	4
4. *Skin rashes*	0	1	2	3	4
5. *Breaking out in cold sweats*	0	1	2	3	4
6. *Cold hands or feet*	0	1	2	3	4
7. *Hot or cold spells*	0	1	2	3	4
HAVE YOU NOTICED ANY OF THE FOLLOWING SYMPTOMS WHEN NOT EXERCISING:					
8. *Pains in your heart or chest*	0	1	2	3	4
9. *Thumping of your heart beats*	0	1	2	3	4
10. *Rapid or racing heart beats*	0	1	2	3	4
11. *Irregular heart beats*	0	1	2	3	4
12. *Rapid breathing*	0	1	2	3	4
13. *Difficult breathing*	0	1	2	3	4
14. *A dry mouth*	0	1	2	3	4
HAVE YOU EXPERIENCED:					
15. *Having to clear your throat often*	0	1	2	3	4
16. *A choking lump in your throat*	0	1	2	3	4
17. *Hoarseness*	0	1	2	3	4
18. *Nasal stuffiness*	0	1	2	3	4
19. *Colds*	0	1	2	3	4
20. *Colds with complications (e.g. bronchitis)*	0	1	2	3	4

	Never	Infrequently	Sometimes	Often	Very Frequently
21. *Increased asthma attacks*	0	1	2	3	4
22. *Sinus headaches*	0	1	2	3	4
HAVE YOU EXPERIENCED:					
23. *Spells of severe dizziness*	0	1	2	3	4
24. *Feeling faint*	0	1	2	3	4
25. *Blurring of your vision*	0	1	2	3	4
26. *Migraine headaches*	0	1	2	3	4
27. *Increased seizures (convulsions)*	0	1	2	3	4
HAVE YOU BEEN BOTHERED BY:					
28. *Indigestion*	0	1	2	3	4
29. *Nausea*	0	1	2	3	4
30. *Severe pains in your stomach*	0	1	2	3	4
31. *Increased appetite*	0	1	2	3	4
32. *Poor appetite*	0	1	2	3	4
33. *Loose bowel movements or diarrhea*	0	1	2	3	4
34. *Heartburn*	0	1	2	3	4
35. *Constipation*	0	1	2	3	4
MUSCLE TENSION IS A COMMON WAY OF EXPERIENCING STRESS. HAVE YOU NOTICED EXCESSIVE TENSION, STIFFNESS, SORENESS OR CRAMPING OF THE MUSCLES IN YOUR:					
36. *Abdomen or stomach*	0	1	2	3	4
37. *Neck*	0	1	2	3	4
38. *Jaw*	0	1	2	3	4
39. *Forehead*	0	1	2	3	4
40. *Eyes*	0	1	2	3	4

	Never	Infrequently	Sometimes	Often	Very Frequently
44. *Back*	0	1	2	3	4
44. *Shoulders*	0	1	2	3	4
44. *Hands or arms*	0	1	2	3	4
44. *Legs*	0	1	2	3	4
45. *Tension headaches*	0	1	2	3	4
IN YOUR DAY-TO-DAY ACTIVITIES, HAVE YOU NOTICED SYMPTOMS OF ANXIETY OR RESTLESSNESS, SUCH AS:					
46. *Fidgeting with your hands*	0	1	2	3	4
47. *Pacing*	0	1	2	3	4
48. *Chewing on your lips*	0	1	2	3	4
49. *Difficulty sitting still*	0	1	2	3	4
50. *Increased eating*	0	1	2	3	4
51. *Increased smoking*	0	1	2	3	4
52. *Biting your nails*	0	1	2	3	4
53. *Having to urinate frequently*	0	1	2	3	4
54. *Having to get up at night to urinate*	0	1	2	3	4
55. *Difficulty in falling asleep*	0	1	2	3	4
56. *Difficulty in staying asleep at night*	0	1	2	3	4
57. *Early morning awakening*	0	1	2	3	4
58. *Changes in your sexual relationship*	0	1	2	3	4
59. *Working tires you out completely*	0	1	2	3	4
60. *Severe aches and pain make it difficult for you to do your work*	0	1	2	3	4

STRESS IS OFTEN ACCOMPANIED BY A VARIETY OF EMOTIONS. DURING THE DESIGNATED PERIOD HAVE YOU FELT:	Never	Infrequently	Sometimes	Often	Very Frequently
61. *Alone and sad*	0	1	2	3	4
62. *Unhappy and depressed*	0	1	2	3	4
63. *Like crying easily*	0	1	2	3	4
64. *Like life is entirely hopeless*	0	1	2	3	4
65. *That you wished you were dead*	0	1	2	3	4
66. *That worrying gets you down*	0	1	2	3	4
67. *You get up tired and exhausted in the morning even with your usual amount of sleep*.....	0	1	2	3	4
68. *You suffer from severe nervous exhaustion*	0	1	2	3	4
HAVE YOU NOTICED:					
69. *Worrying about your health*	0	1	2	3	4
70. *Stuttering or stammering*	0	1	2	3	4
71. *Shaking or trembling*	0	1	2	3	4
72. *Being keyed up and jittery*	0	1	2	3	4
73. *Feeling weak and faint*	0	1	2	3	4
74. *Frightening dreams*	0	1	2	3	4
75. *Being uneasy and apprehensive*	0	1	2	3	4
76. *You get nervous or shaky when approached by a superior*	0	1	2	3	4
77. *You become so afraid you can't move*	0	1	2	3	4
78. *You are fearful of strangers and/or strange places make you afraid*	0	1	2	3	4
79. *Sudden noises make you jump or shake*	0	1	2	3	4
DOES IT SEEM:					
80. *That little things get on your nerves*	0	1	2	3	4
81. *You are easily annoyed and irritated*	0	1	2	3	4

	Never	Infrequently	Sometimes	Often	Very Frequently
82. *When you feel angry, you act angrily toward most everything*	0	1	2	3	4
83. *Angry thoughts about an irritating event keep bothering you*	0	1	2	3	4
84. *You become mad or angry easily*	0	1	2	3	4
85. *Your anger is so great that you want to strike something*	0	1	2	3	4
86. *You let little annoyances build up until you just explode*	0	1	2	3	4
87. *You become so upset that you hit something*	0	1	2	3	4
IN YOUR DAY-TO-DAY LIVING DO YOU FIND:					
88. *Your thinking gets completely mixed up when you have to do things quickly*	0	1	2	3	4
89. *You must do things very slowly to do them without mistakes*	0	1	2	3	4
90. *You get directions and orders wrong*	0	1	2	3	4
91. *You are unable to keep thoughts from running through your mind*	0	1	2	3	4
92. *Frightening thoughts keep coming back*	0	1	2	3	4
93. *You became suddenly frightened for no good reason*	0	1	2	3	4
94. *You have difficulty in concentrating*	0	1	2	3	4
95. *What other ways do you experience stress, tension or anxiety?*					

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