

HAIGAZIAN UNIVERSITY

The Relationship Between Extra-dyadic stress, Intra-dyadic stress and Marital Satisfaction in
Couples of the Greater Area of Beirut

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A Thesis submitted to the Faculty of Social and Behavioral Sciences in partial fulfillment of the
requirements for the Master of Art in Psychology – Emphasis: Counseling at Haigazian
University.

Beirut- Lebanon
December 2019

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The relationship between extra-dyadic stress, intra-dyadic stress and marital satisfaction in couples of the Greater Area of Beirut

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is accepted by the Graduate Thesis Committee as satisfying the thesis requirements for
the degree Master of Arts/ Clinical Psychology

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Haigazian University

December 2019

DEDICATION

I would like to dedicate this thesis to all married couples in Lebanon, especially my friends, who are struggling to provide a good life for themselves and for their children, who juggle many responsibilities and find no time for themselves, whose marriages are suffering, but, with much resilience, keep standing up and moving on no matter what.

ACKNOWLEDGMENTS

First, I would like to thank God for providing me with physical and mental strength, financial means, and good people to keep me going on this journey.

I thank my husband Wael for the emotional, financial, and physical support and for believing in me and encouraging me when times were tough.

I would also like to thank Dr. Hanine Hout, my advisor, for her professionalism in walking me through the thesis with quick, clear, and pointed feedback, and for being considerate, flexible and perseverant in making things work out despite the distance.

I thank Dr. David Tawil and Dr. Rana Zayek for their contribution and comments to improve the outcome of the thesis.

Finally, I would like to thank my friends who supported and encouraged me to continue, when my strength was failing.

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Abstract

This study investigated the impact of extra-dyadic stress on marital satisfaction with intra-dyadic stress mediating this relationship in Lebanese couples of the Greater Area of Beirut. A total of 150 couples (300) individuals participated in the study by filling out a demographic questionnaire, Multidimensional Stress Questionnaire for couples MSD-Q (external stress), Multidimensional Stress Questionnaire for couples MSD-Q (internal stress), and Relationship Assessment Scale (RAS). Correlation and regression analyses were used to examine the relationship between the different variables. The results showed that a significant negative relationship exists between extra-dyadic stress and marital satisfaction, positive significant relationship between extra-dyadic stress and intra-dyadic stress, and negative significant relationship between intra-dyadic stress and marital satisfaction in Lebanese couples. The relationship between extra dyadic stress and marital satisfaction was mediated by intra-dyadic stress which was reflected by the multi-linear regression analysis that showed a diminished effect of extra-dyadic stress on marital satisfaction when intra-dyadic stress was entered into the equation.. The posited hypotheses were verified. We concluded that Lebanese couples' experience of extra-dyadic stress indeed spills over into the relationship by increasing intra-dyadic stress which in turn lowers their marital satisfaction.

Key words: extra-dyadic stress, intra-dyadic stress, marital satisfaction, Lebanese couples

The Relationship Between Extra-dyadic Stress, Intra-dyadic Stress and Marital Satisfaction in Couples of the Greater Area Beirut

Literature is rich with studies that expose the risk stress poses on the individual's functioning and couples' relationship (Falconier, Nussbeck, & Bodenmann, 2013). While stress was related to physical and health problems in the individual, at the couple's level it was associated with detrimental effects to the functioning of the dyad (communication problems, dissatisfaction, conflict; Falconier et al. 2013). Our present study was an attempt to shed light on the roles of stress in the context of couples using for this purpose a sample from the Greater Area of Beirut, Lebanon. This chapter will firstly present the purpose of the study, then the research question, followed by the rationale and significance of the study, and ending with the operational definitions of the variables included in the background of the study.

Stress in Couples

In adult intimate relationships, stress was recognized as a predictor of low relationship quality and instability (Randall & Bodenmann, 2009; Story & Bradbury, 2004). Literature has categorized stress experienced in close relationships into subgroups according to (a) duration (*chronic* and *acute*), (b) intensity (*daily hassles or minor* and *major life events or major*), and (c) origin (*intra-dyadic* and *extra-dyadic*) (Karney & Bradbury, 2005; Randall & Bodenmann, 2009). The most harmful stress type to relationships is chronic, extra-dyadic, and minor stress combined (Falconier, Nussbeck, & Bodenmann, 2013; Harper, Schaalje & Sandberg, 2000; Story & Repetti, 2006).

Stress and Marital Satisfaction

More specifically, extra-dyadic stress, which is the stress that occurs outside the relationship, is one of the key factors that marital satisfaction and stability are influenced by

(Bradbury & Karney, 2010; Randall & Bodenmann, 2009). Researchers have paid added attention to circumstantial factors that elicit stress responses inside the relationship or proceeds from the surrounding to affect the relationship itself (Bodenmann, Ledermann, & Bradbury, 2007; Karney, Story, & Bradbury, 2005). Some of these external stressors could be incidents in the work environment, in the neighborhood, and the financial situation of the couple (Revenson, Kayser, & Bodenmann, 2005). The interaction between these stressors and each of the partners could provoke stress inside the relationship that could lead to more conflicts and poorer marital satisfaction (Bodenmann et al., 2007; Karney, Story, & Bradbury, 2005).

On the other hand, research that focused on intra-dyadic stress, stress inside the relationship, has highlighted a negative correlation between marital satisfaction and intra-dyadic stress in adult relationships (Breitenstein, Milek, Nussbeck, Davila, & Bodenmann, 2017; Randall & Bodenmann, 2009). Randall and Bodenmann (2009) found a strong evidence for high levels of intra-dyadic stress and dissatisfaction experienced by each of the partners.

When considering all three variables together, extra-dyadic stress, intra-dyadic stress, and marital satisfaction, high intra-dyadic stress was found to mediate the relationship between extra-dyadic stress and marital satisfaction (Bodenmann et al., 2007; Karney et al., 2005; Merz, Meuwly, Randall, & Bodenmann, 2014; Neff & Karney, 2004). In other words, extra-dyadic stress (stress from an external source tends to spill over and permeates the couples' relationship in what is called intra-dyadic stress (conflict or negative communication), which in turn damages the mutual, co-functioning of the partners and decreases their marital satisfaction (Bodenmann et al., 2007; Ledermann, Bodenmann, Rudaz, & Bradbury, 2010; Neff & Karney, 2004; Repetti, Wang, & Saxbe, 2009).

Purpose of the Study

Several articles have inspected the relationship between external stress on internal stress and intimate relationships (Bodenmann, et al., 2007; Falconier et al., 2013; Ledermann et al. 2010; Merz et al. 2014; Story & Repetti, 2006). According to Randall and Bodenmann (2009) the importance of differentiating between external and internal stress when studying stress and relationships was emphasized. The study stated that it would be beneficial to study each variable, the interaction between them, and their association with couples' relationship. Moreover, according to Randal and Bodenmann (2009) future research should target the mediating and moderating factors that play a role in the process of stress on close relationships.

It is important to note that this study is a partial replication of a study done by Falconier et al. (2013) in the German speaking part of Switzerland. In their study, they investigated the mediating role of intra-dyadic stress in the relationship between extra-dyadic stress of married couples and their marital satisfaction. They have proposed that married individual's external stress spills over to their relationship increasing internal stress which in turn decreases their marital satisfaction.

The study also posited that the individual's psychological and physical health are also affected by external stress and influence marital satisfaction. Moreover, the study suggested that stress of males and females are interdependent and affect the other partner. The study used Actor Partner Interdependence Model to statistically test for their hypotheses.

Hence the purpose of this study was, in partial replication of the study of Falconier et al. (2013), to target one of the key factors found in the literature that influences marital satisfaction. This study looked at the relation between extra-dyadic stress and marital satisfaction and intra-dyadic stress and marital satisfaction among married couples in the greater area of Beirut.

Moreover, this study probed the relationship between extra-dyadic stress and marital satisfaction through the mediation of intra-dyadic stress.

Research Questions

How much is the relationship between extra-dyadic stress and marital satisfaction, mediated by intra-dyadic stress among couples in the greater area of Beirut?

Rationale of the Study

Randall and Bodenmann (2009) highlighted the significance of examining the role of stress in relationship satisfaction because of the following reasons, 1. Stress is prevalent in our societies and is costly on the personal, economic, and social levels. 2. Literature is full of studies that associate stress with unfavorable relationship results. 3. Stress spills over from outside the marriage to inside the relationship eliciting conflicts.

Is stress prevalent in the Lebanese society as Randall and Bodenmann (2009) stated is the case in some western countries? Are there unfavorable relationship results in Lebanon that are associated with the stress couples' experience? Is the phenomenon so called 'spillover' of stress found in the Lebanese society? Has there been any studies about this topic in Lebanon? To our knowledge little investigation has been done in research to study the topic of stress and more specifically its influence on marital satisfaction in Lebanon. Research carried out in Lebanon states that most of the studies on stress have been done in the west (Farhood et al., 1993; Farhood, 1999; 2004). Our own readings about the topic revealed that most studies about stress done in Lebanon are related to war because of the years of war Lebanon has endured (Farhood et al., 1993; Farhood, 1999; 2004).

As far as marital satisfaction is concerned, only one study relating marital satisfaction to cross-sibling attachment styles (Bawab & Kazarian, 2012) was found in Lebanon which is

irrelevant to the present study. None were found to relate daily chronic stress experienced by the Lebanese couples to marital satisfaction. However, it stands crucial to mention that according to a recent statistical survey, it was found that divorce rates in Lebanon have tremendously increased in the year of 2017. The increase was a 101% raise from the year of 2006. ("Divorce rates in Lebanon on the rise," 2018; "Divorce rate in Lebanon doubles in 10 years," 2018). According to the same statistic, Beirut District came second in the number of divorces (1,486) after North Lebanon district (1,840). This fact offers a tie between Lebanon's status and the literature concerning stress, marital satisfaction and divorce. There is evidence found in literature that links stress, marital dissatisfaction, and increased divorce outcomes among couples (Bodenmann, 2005). No studies, to our knowledge, have explored the relationship between the increased divorced rates, stress and marital satisfaction in Lebanon. However, before exploring the outcomes of marital dissatisfaction, this study will focus on examining the factors that influence marital satisfaction among Lebanese couples. This study will try to fill the gaps found in the literature concerning stress and its influence on marital satisfaction among Lebanese couples. More specifically, gaps targeted in this study are related to the extent extra-dyadic stress experienced by Lebanese couples is related to marital satisfaction, and whether there is a spillover of extra-dyadic stress into the relationship in the form of intra-dyadic stress. Moreover, the extent that the spillover influences marital satisfaction will be examined

Significance of the Study

This study was an attempt towards helping us better understand the perception of Lebanese couples of the stress they pass through and how they cope with it in general. In addition, these findings may increase couple therapists' knowledge of the possible adverse consequences of daily stressors on individuals and their relationship and the necessity for

teaching couples coping strategies to deal with stress. This knowledge is vital for the administration of prevention and intervention measures with couples. The acquired knowledge could be utilized in adding to and strengthening couples' therapy and prevention programs that target marital distress to preserve marital satisfaction in the face of stress.

As most of the studies about stress and marital satisfaction were conducted in the west (Farhood et al., 1993; Farhood, 1999; 2004), more insight is needed on the topic in the Middle Eastern countries in general and in the Lebanese culture in particular. This study added to the existing literature more knowledge about Greater Beirut, Lebanon where the topic of daily stress and marital satisfaction is under-researched. Moreover, the knowledge gained could be used by culture researchers as a comparison to other countries and cultures across the world. This area of research is theoretically and clinically significant in the fund of information it unfolds and its practical application.

Background of the Study

Stress in couples can be identified based on three dimensions: 1. Whether it is internal or external to the relationship, 2. Whether it is major or minor, and 3. Whether it is acute or chronic (Randall & Bodenmann, 2009). For the sake of this study and according to the Systemic Transactional Model (STM) theoretical framework, the studied stress types will be extra-dyadic chronic minor stress and intra-dyadic stress in relation to marital satisfaction.

Operational Definitions

Extra-dyadic Chronic Minor stress

External stress (extra-dyadic stress) is that which happens between the individual and the environment, but which can impact the relationship indirectly. The stress overflows from one partner to the interaction between the couple in forms of conflicts and arguments. Examples of

such stressors are stress from the workplace, stress from the neighborhood, stress from the financial situation, or stress induced from relationships with family such as siblings, parents-in-law, relatives and children (Bodenmann, Ledermann, Blattner-Bolliger, & Galluzzo, 2006).

Minor stressors are more concerned with daily life events of several areas in the person's life. These areas include family stressors like children, work conflicts, and surrounding environment like neighborhood (Caspi, Bolger, & Eckenrode, 1987).

Chronic stressors are constant features of the surrounding (Bahr, 1979) and their effect is enduring (Karney et al., 2005).

Intra-dyadic Stress

Internal stress (Intra-dyadic stress) on the other hand, is stress that initiates in the relationship between the couple. Such stressors have to do with the conflict and arguments resulting from inherent differences between the partners of the dyad. For example, differences in goals, needs, desires, attitudes, habits, partners' morals, approaches, and traditions about certain matters (e.g. raising children, individual boundaries, managing finances, intimacy, leisure time, etc.) or incompatibility of the partners (Bodenmann et al, 2006).

Marital Satisfaction

Marital satisfaction is the measurement for the feelings of fulfillment the partners experience through their relationship. It is an indicator of the positive feelings and fulfillment the partners experience from being together (Brackett & Brackett, 2008, p. 383).

Systemic Transactional Model Theory

The topic of stress was addressed in research for decades and many models of stress were created. This study will base its exploration on the systemic-transactional model (STM).

The STM proposes three points about stress in couples that are important for this study. First the model states that minor daily external stressors (work, neighborhood) to the relationship are a major source of stress to the couple that influence the relationship and hence marital satisfaction (Falconier et al., 2013; Randall & Bodenmann, 2009). The second point of interest to this study is the consideration of stress internal to the relationship (different personalities, attitudes, goals..). This kind of stress (intra-dyadic stress) is also a major source of influence on the relationship functioning and marital satisfaction of the couple. STM took it a step further in the model and related extra-dyadic stress and intra-dyadic stress to marital satisfaction in the so-called spillover mechanism. This mechanism is defined as the influence of extra-dyadic stress on intra-dyadic stress which in turn impacts marital satisfaction of the partners (Falconier et al., 2013; Randall & Bodenmann, 2009)

Stress and Marital Satisfaction

Years of research have steadily shown that stress is precarious to the functioning of couples' relationships as much as individuals (Falconier et al., 2013). Several consequences of different types of stress on the couples' relationship have been identified. Some examples are psychological and physical hostility, communication difficulties, and relationship discontent and termination (Allen, Rhoades, Stanely, & Markman, 2010; Buck & Neff, 2012; Langer, Lawrence, & Barry, 2008; Story & Bradbury, 2004). This study explored stress in the context of marital relationship and satisfaction in the Greater Area of Beirut, Lebanon.

Extra-dyadic Stress and Marital Satisfaction

In line with the purpose of the current study, stress examined covered the following three dimensions: external, chronic and minor which will be referred to as extra-dyadic stress.

Extra-dyadic stress has been found time and over again to influence the relationship between married couples. The mechanism has been delineated by Randall and Bodenmann (2009). According to this study extra-dyadic stress spills into the relationship in the form of negative feelings and irritation. This spillover reduces the time spent by the partners together and negatively influences their interactions. Thus, lessening their satisfaction in the marriage. The reason these stressors are harmful is the fact that their impact on the relationship is small and continuous rather than temporary and noticeable as with major life stressors (Randall & Bodenmann, 2009). Several studies confirmed this negative relationship between extra-dyadic stress and marital satisfaction with empirical evidence (Bodenmann, 2000; Bodenmann et al., 2006; Bodenmann et al., 2007; Bolger, DeLongis, Kessler, & Wethington, 1989; Falconier et al., 2013; Repetti, 1989, Schulz et al., 2004). The current study will highlight extra-dyadic stress' relation to marital satisfaction.

Intra-dyadic Stress and Marital Satisfaction

In line with the purpose of the study, the relation between intra-dyadic stress and marital satisfaction was best explained in light of its mediating role according to STM. Bodenmann et al. (2007) explains the mechanism of increase in internal stress under the influence of minor external daily stressors. Communication, quality time, intimacy, coping and health status of each partner are some areas inside the relationship affected by external stress. These affected areas in turn cause more internal stress which negatively relate to marital satisfaction and increases the possibility of divorce. This process has been investigated and substantiated in the literature (Falconier et al. 2013; Randall & Bodenmann, 2009). The study at hand focused on the mediating role of intra-dyadic stress between extra-dyadic stress and marital satisfaction.

Spillover effect

Stress spillover process has been well documented in the literature, and regularly proven that stress spills over from one area of life into the relationship triggering internal stress (Falconier et al., 2013; Randall & Bodenmann, 2009). According to both Falconier et al. (2013) and Randall and Bodenmann (2009) stress spills over from outside the relationship (stress at work, traffic, etc.) to the relationship between the partners (conflict, negative communication) which in turn, and on the long run, decreases satisfaction of the couple in their marriage. Repetti et al. (2009) further delineates that experiencing stress causes a reaction that persists after the incident occurs. The residue of this experience is brought back home at the end of the day. Then this reaction shapes the interaction among family members. In regards to the present study, the spillover mechanism was stressed upon in the exploration of stress and marital satisfaction in the Greater Area of Beirut Lebanon.

Hypotheses

Based on the above discussed literature, the following hypothesis was examined:

Hypothesis 1: There is a significant, positive correlation between intra-dyadic stress and extra-dyadic stress.

Hypothesis 2: There is a significant, negative correlation between intra-dyadic stress and marital satisfaction.

Hypothesis 3: There is a significant, negative correlation between extra-dyadic stress and marital satisfaction.

Hypothesis 4: Intra-dyadic stress mediates the negative relation between extra-dyadic stress and marital satisfaction among married couples in the greater area of Beirut.

Overview of Methodology

This study was a quantitative correlational survey design that utilized correlation statistical analysis and regression to examine the proposed hypothesis. A non-probability convenient purposive snowball sample of 150 Lebanese married heterosexual couples (300 individuals) living in the Greater Area of Beirut was assessed through self-report questionnaires. The survey included a demographic questionnaire and three scales: the Intra-dyadic Subscale from the Multidimensional Stress Questionnaire for Couples (MSQ-C; Bodenmann, 2007), the Extra-dyadic Subscale from the Multidimensional Stress Questionnaire for Couples (MSQ-C; Bodenmann, 2007), and the Relationship Assessment Scale (RAS; Hendrick, 1988). The survey was administered in English. The data were analyzed using the IBM SPSS program version 21.

Limitation of the Study

The study included one limitation. The use of English as the language of administration of the survey limited the data collection to couples that could read and understand the Language. This in turn limited the generalization of the study to all parts of the Greater Area of Beirut since the sample was not representative of all the residents who did not have the knowledge of the English Language.

Chapter 2

Literature Review

Marital satisfaction has been discussed in the context of emotional regulation, adult attachment styles, communication patterns, divorce, conflict resolution, physical and mental health, etc. More recently, however, a new emphasis has been highlighted, specifically between stressful life events and marital satisfaction, among families and couples. One particular framework, systemic transactional model (STM), developed by Bodenmann (1997) has identified stress in couples based on three dimensions: 1. Internal or external to the relationship, 2. Major or minor, and 3. Acute or chronic (Randall & Bodenmann, 2009). For the sake of this study, and according to the STM theoretical framework, the examined stress types are extra-dyadic chronic minor stress and intra-dyadic stress in relation to marital satisfaction in Beirut, Lebanon. In order to provide a context to the tested hypotheses of the study, a review of literature comprised of a theoretical framework for the studied variables as well as empirical research in the field of stress and marital satisfaction, is the focus of this chapter.

Marital Satisfaction

According to Brackett and Brackett (2008) three concepts should be distinguished while measuring marital success. These concepts are marital stability, marital quality, and marital satisfaction. Marital stability is based on the longevity of the marital relationship. In other words, stable marriages are those where the partners remain together until the death of one of the spouses. People argue, though, that a long term marriage does not necessarily reflect marital satisfaction. Spouses could live together for a long time while being miserable. Brackett and Brackett (2008) stated that long stable marriages cannot indicate whether the partners are happy or not, but marriages that end up in divorce definitely involve marital dissatisfaction.

The second measure marital quality, is less clear in its definition. However, when measuring marital quality researchers look for levels of happiness described by the spouses as well as the positive and negative feelings they report in relation to being married to one another. This measure has been commonly studied against factors where the spouses rate themselves and their relationship. For example, couples rate the levels and frequency of interaction or conflict they experience in the relationship.

Lastly, marital satisfaction is the measurement for the feelings of fulfillment the partners experience through their relationship. It is an indicator of the positive feelings and fulfillment the partners experience from being together (Brackett & Brackett, 2008). Marital satisfaction is frequently related to factors where spouses judge and rate their personal experiences and how their experiences feel when compared to other relationships they know about. Similar to marital quality, this measure also requires self-reports of the spouses about the marriage, the partner, and themselves. In fact, according to the authors, marital quality and marital satisfaction are usually used interchangeably because they have similar characteristics.

Definition and Types of Stress

Stress has been understood for a long time as a transaction happening between an individual and his environment (Lazarus, 1966; Lazarus & Launier, 1978). The ABC-X model, (Hill, 1949, 1958) explained stressors as crisis provoking situations. Boss (1987) went on to add to the previous definition that the situation can cause change and stress but doesn't necessarily cause that every time. Stress has also been defined as a psychological and physical reaction by Selye (1976) and disturbing events, unanticipated changes, and emotional disturbances by Dohrenwend and Dohrenwend (1974). Later, introduced by Lazarus and his colleagues (1984), the transactional stress model conceptualized stress as greatly dependent on the person's

judgement of the situation rather than just on the quality of that situation. Therefore, an event is stressful to a person when that person judges that his wellbeing is jeopardized by the high demands of an event and he thinks he does not have the proper resources to face or cope with that event. Thus, cognitive appraisal and available resources both influence a person's perception of a stressful situation (Lazarus et al. 1984).

In Hill's (1949, 1958) ABC-X model of stress, A is a crisis-provoking situation, B is the resources of the family to face the crisis, C is the definition of that crisis according to the family, and X is the crisis. In his model, Hill primarily focused on major life crises or changes as stressors. Holmes & Rahe (1967) also studied stress in relation to major life changes in the individual's life. Lazarus and Folkman (1984) then presented daily hassles as a source of stress in contrast to stress as a reaction to major life changes. Therefore now we have two classifications of stress-inducing situations; major-life events and minor daily hassles.

On another level Boss (2002) developed a classifying system for stressors with one dimension being its origin. He differentiated between internal and external stressors. Internal stressors were stressors that initiated inside the family, such as siblings' conflict. External stressors on the other hand initiated outside the family, such as a tough day at work or living in a dangerous neighborhood, etc.

Another conceptual distinction of stress is related to the longevity of the stressor. In other words, there are chronic and acute stressors. Stressors that qualify as acute are time limited (Gump & Matthews, 1999) and present a clear onset and offset (Wheaton, 1997). Therefore, chronic stressors are those that last longer than acute stressors that continue to exist for one year or more (McGonagle and Kessler, 1990). Whilst the concept of stress was evolving and being classified, researchers were also broadening the study of stress from focusing solely on

individuals to consider families and couples. According to Bertalanffy (1969) systems theorists stated that because a family is a system and all the individuals belonging to one family influence each other, stress should not be comprehended strictly as a function of an individual but in the framework of a family as well.

The ABC-X Model of Family Stress

The ABC-X Model of Family Stress by Hill (1949, 1958) was the basis of our contemporary research of families and stress. This model was created to understand the response of families to major life crises such as, war, crimes, death, accidents, etc. The ABC_X in the model stand for, A= stressor; B=resources, C= perception of stressor; X= crisis. From that point on researchers have paid more attention to the influence of stress on families. Later in the 1980s, the double ABC-X model was developed based on the original ABC-X model by Rueben Hill's (1949). However, not until the 1990s did research start focusing on stress in couples and on the influence of stress on the quality and stability of intimate relationships and satisfaction (Falconier et al., 2013). Since then stress was found to influence the functioning of individuals and intimate relationships (Watson, Scarinci, Klesges, Slawson, & Beech, 2002).

Stress and Marital Satisfaction

Falconier et al. (2013) stated that years of research have steadily shown that stress is precarious to the functioning of couples' relationships as much as individuals. Its influence resides in its capacity to modify the ways we interact with people, and specifically the romantic partner (Randall & Bodenmann, 2017). The studies done by Bodenmann (1997), Bodenmann and Perrez (1996), and Bodenmann and Cina (2006), found that the quality of the relationship interaction decreased 40% for the couples who were experiencing stress. Extensive research has empirically substantiated the influence stress exerts on relationships' distress in particular

(Bodenmann, 1995, 2005; Karney, Story, & Bradbury, 2005). Some examples are psychological and physical hostility, communication difficulties, relationship dissatisfaction and termination (Allen, Rhoades, Stanely, & Markman, 2010; Buck & Neff, 2012; Langer, Lawrence, & Barry, 2008; Story & Bradbury, 2004). Therefore, one can dare say that the role stress plays in the dynamics and stability of intimate relationships and the relationship satisfaction is not to be underestimated.

With more pertinence to the current study, it was significant to understand the influence of stress on satisfaction in intimate relationships because according to Ruvolo (1998) relationship quality or satisfaction is the main predictor of satisfaction of life. Also because marital satisfaction is a principal determinant of success of a marriage (Bracket & Brackett, 2008). That said, we specifically focused on the role of external-chronic-minor stress and internal-chronic-minor stress on the satisfaction of the couples in a relationship.

External stress to couples are situations such as economic concerns and pressure at the workplace and similar things that originate outside the interaction of the individuals together. Such daily happenings on a long period of time could interfere with the interaction between the partners in such a way that it causes the partners to allocate less time for each other, to become less tolerant of the other partner, be more hostile, and withdraw from the other (Randall and Bodenmann, 2009). Logically, internal stress would be the tension that is created purely from the interaction of the partners. Each individual brings in their own goals, desires, needs, habits, and attitudes to the relationship. A slight or major difference in these aspects could create tension and conflict. The ripples of continuous and accumulated minor internal and external tension over time renders the partners alienated and dissatisfied. This can further weaken relational bonds and increase the possibility of divorce (Bodenmann, Meuwly, Bradbury, Gmelch, & Ledermann,

2010; Karney, Story, & Bradbury, 2005; Neff & Karney, 2004; Schulz, Cowan, Cowan, & Brennan, 2004).

Systemic Transactional Model Theory

In the 1990s stress in the context of couple's relationship was focused on. In this regard, several models were developed. Two models, the vulnerability-stress-adaptation model (Karney & Bradbury, 1995) and the Systemic-transactional model (STM; Bodenmann, 1997), were the leading guides in most of the studies about stress processes in couples.

The vulnerability-stress-adaptation model by Karney and Bradbury (1995) was developed to describe the consequences of external stressors on couples. The model suggested that the effect of external stress on couple's relationship depends on the nature of the event, on the individual's lasting weaknesses (personality traits), and coping processes (capability of offering support).

The STM, on the other hand, was more systemic, influenced by the transactional stress theory by Lazarus and Folkman (1984). As stated before, Lazarus and Folkman postulated that stress is experienced by individuals when the perceived demands of a situation exceeds the perceived personal resources to meet the demands. In a more systemic manner where couples are considered, the STM proposed that both partners have a role in influencing the experience stress and coping process of themselves and the other partner. One partner's patterns of stress appraisal, experience, and coping influences the other partner's. So one cannot study or hope to understand stress of one partner in a couple without studying and taking into consideration that of the other partner.

The STM takes it a step further, in comparison to other models, and emphasizes the role of minor chronic stressors (daily hassles) as a source of essential extra-dyadic stress in a couple's

relationship (Revenson & Lepore, 2012). Daily hassles could be as simple as one losing a phone, one having to deal with a challenging colleague, or dealing with work and home demands (Falconier et al., 2013). Therefore, couples can experience stress from sources outside their relationship such as from their workplace (difficult boss), finances (not enough means), children, neighborhood (noise), family (interfering), society, traffic, etc.

What is more special about STM is that, unlike other stress models of families and couples, it regarded the relationship of the couple itself as a source of stress (intra-dyadic stress) along with it being affected by external stressors (Bodenmann, Ledermann, & Bradbury, 2007). While it would seem that external stress on its own is an enough source of stress for the couple, STM emphasized the importance of differentiating it from stress originating from the interaction between the partners. Some sources of internal stress could be incompatibility of the partners, conflict and dealing with conflict, difference in the partners' views on important values, goals, attitudes, and habits, and disagreement in decisions concerning children, finances, intimacy, boundaries, and leisure time, etc. It stands crucial to note that researchers in the field of stress did not carefully distinguish between the two kinds of stress for a long time (Randall & Bodenmann, 2009). In fact the two variables were often confused which weakened the significance of the outcomes in former studies on the impact of stress in intimate relationships. Randal and Bodenmann (2009) further stated that to fully understand the impact of stress on intimate relationships researchers should study the interplay between extra-dyadic stress and intra-dyadic stress in relation to relationships. Fortunately multitude of recent studies have confirmed the presence of a relation between extra-dyadic stress and intra-dyadic stress (Allen et al., 2010; Bodenmann and Cina, 2006; Buck & Neff, 2012; Falconier et al. 2013; Langer, Lawrence, & Barry, 2008; Randall & Bodenmann, 2009).

According to STM, experiencing extra-dyadic stress increases the chance for a couple to suffer from individual psychological and physical distress and internal stress. This influence, namely the external stress increasing internal stress, is referred to as spillover. The dynamics of the relationship between the partners is likely to be negatively influenced by the personal external stress experienced by each of the partners on their own. This only adds to the original stress experienced by the couple as a result of their personal interaction with each other. So couples are two people who interact with each other and that is one source of stress. Then each of the partners have their own stress when interacting with their environments. This interaction influences their individual wellbeing, but then they interact together bringing in whatever stress they experienced outside into the relationship. Thus internal stress increases. Therefore, extra-dyadic stress from daily hassles decreases marital satisfaction directly and indirectly through two mediating processes: increase of intra-dyadic stress (relationship stress) and weakening of individual physical and psychological health (Falconier et al., 2013).

Extra-dyadic Stress and Marital Satisfaction

In line with the purpose of the current study, stress examined covered the following three dimensions: external, chronic and minor. Randall and Bodenmann (2009) emphasized the importance of considering all three dimensions of stress when studying couples' relationships to show, in a reliable and valid way, the connection between stress and close relationships. For clarity and simplicity, the three dimensions of stress are referred to as extra-dyadic and are used interchangeably.

Studies that targeted chronic minor stressors highlighted a link between stress from outside the relationship (external stress) and marital satisfaction (Bodenmann, 2000; Bodenmann et al., 2006; Bodenmann et al., 2007; Bolger, DeLongis, Kessler, & Wethington, 1989; Repetti,

1989, Schulz et al., 2004). Totenhagen, Curran, Serido, and Butler (2013) studied effects of daily hassles on relationship quality in 162 heterosexual couples. They used daily diary data. The study results revealed that when persons reported high levels of daily hassles (e.g. finances) both, them and their spouses, reported declines in their satisfaction and closeness levels. Moreover, three longitudinal studies that addressed minor stress and relationship stability and functioning, revealed a long-term connection between the two factors. The studies also demonstrated that daily stress is related to the deterioration of relationships (Bodenmann & Cina, 2006; Bodenmann et al, 2007; Karney et al., 2005) and negative relationship outcomes such as poor quality (satisfaction) and divorce (Totenhagen, Butler, & Ridley, 2012). Minor stressors were found to be significantly associated with a low quality of relationships in Bodenmann's (2000) study (Randall & Bodenmann, 2009). However, in the same study the association between major life stressors and the low quality of relationships was vague. Moreover, daily hassles were found to be one of the best predictors of low relationship quality (Randall & Bodenmann, 2009). Randall and Bodenmann (2017) presented a review of studies that have investigated stress and relationship satisfaction. In this review Randall and Bodenmann (2009) stated that most of the studies that have examined extra-dyadic stress (e.g. daily hassles, child related stress, financial strain, immigration stress, minority stress, etc.) have consistently found a negative association between these stressors and relationship satisfaction.

Of the many consequences of extra-dyadic stress on relationships, according to Bodenmann's stress-divorce model, are decreased energy, time shared and resources of partners, and increased negative behaviors between the couples (Bodenmann, Chavroz et al., 2007; Randall & Bodenmann, 2009). In a cross-sectional study done with 42 married couples, more stressful work days were related to angrier marital behavior in women and more withdrawn

behaviors in men (Schulz, Cowan, Pape Cowan, & Brennan, 2004). Another study done by Story and Repetti (2006) also targeted the relation between work stress and the interaction between the couple. There were significant correlations between negative interactions and behaviors between the couples and observed daily work stressors. Buck and Neff (2012) studied 171 heterosexual newlywed couples targeting to understand the specific mechanism (self-regulatory depletion) through which external stress may lead to dysfunctional relationship patterns (low satisfaction and negative behaviors). The theory posited that the self-regulatory resources decrease in partners who face stress every day. This leaves them without enough energy to face their relationship demands. In this manner the study results have confirmed that on days when spouses experienced relatively more stress they reported that they were more likely to participate in negative behaviors towards their spouse and thought less positively about their marriage. More importantly is that the couples reported experiencing higher levels of self-regulatory depletion on days of higher stress levels. Moreover, in the same study, external stress was related to marital appraisals, more specifically, how the individual thought about their marriage. The couples reported that on days with more levels of stress than usual they also reported lower positive evaluation of their satisfaction in marriage.

It was assumed by Bodenmann (1995, 2000) and Bodenmann et al. (2007) that the daily minor stressors that are external to the relationship are harmful in that they tend to seep into the close relationship distancing the individuals and decreasing the relationship quality with time. The reason these stressors are harmful is the fact that their impact on the relationship is small and continuous rather than temporary and noticeable as with major life stressors (Randall & Bodenmann, 2009). Even though, major life stressors have been mainly targeted in research, more recently minor stressors have been found to play a more significant part in the

understanding the functioning of the couples (Randall & Bodenmann, 2009). The contact between individuals and their stressful daily life events induce negative feelings such as irritation, frustration, and distress such as when a meeting is missed or an appointment is forgotten (Bodenmann et al., 2006; Lazarus & Folkman, 1984). In the investigation of the transfer of stress from work, namely coworker incivility, to the family domain and its association with marital satisfaction, Ferguson (2012) used a sample of 190 full time employees and their partners. The data revealed that targets of incivility at work do not leave the resultant stress outside when they come home. On the contrary they bring this stress home which in turn affects their relationships with the partner and the children. According to Ferguson (2012) the reason this happens is because individuals who experience stress at work become more socially disengaged when they come home and their levels of irritability and anger display increases. Thus an individual's relationship with their spouses will be less satisfying. Based on the above discussed literature, the current study attempted to show that there is a significant, negative correlation between extra-dyadic stress and marital satisfaction.

Intra-dyadic Stress and Marital Satisfaction

Bodenmann (1995, 2005) and Story and Bradbury (2004), state that there is a difference between stress that initiates inside the relationship and stress that comes from outside the relationship. Randall and Bodenmann (2017) support the proposed distinction.

Internal stress, according to the operational definition used in this study, could be caused by differences in goals, needs, desires, attitudes, habits, partners' morals, approaches, and traditions about certain matters (e.g. raising children, individual boundaries, managing finances, intimacy, leisure time, etc.) or incompatibility of the partners (Bodenmann et al, 2007). Many studies were performed looking at certain variables that cause internal stress and their relation to

marital satisfaction. Some of these studies, related to the operational definition, are introduced briefly.

Some studies that examined internal stressors and marital satisfaction focused on personality traits, aggression, and affect (Lavner & Bradbury, 2010), and communication styles (Ledermann et al., 2010) as internal stressors. Lavner and Bradbury (2010) assessed the different trajectories of marital satisfaction in the course of four years with 232 newlywed couples. The study identified 5 trajectory groups. First group, stable high, started off with high levels of marital satisfaction and stayed stable for the duration of 4 years. Second trajectory group, minimal decline-moderately high, started off moderately high but less than the first group and showed a very slight decline in satisfaction over the period of 4 years. Third group, minimal decline-moderate, started off with moderate levels of satisfaction and showed a slight decrease over the course of 4 years. The fourth group, Substantial decline-moderate, started off with moderate levels of satisfaction and decreased considerably over the course of 4 years. Lastly the fifth group, substantial decline-low, started off with low levels of satisfaction and showed a considerable decrease over the course of four years.

Another goal of the study was to understand how well initial maladaptive personality characters (self-esteem, anger, neuroticism), chronic stress, some aspects of communication and problem solving (positive feelings, negative feelings, bodily aggression) distinguished the 5 different trajectories at the end of the four years. For this purpose, data about personality characters and communication styles were collected from 172 couples of the participants using self-reports, interviews and observations at the beginning.

Chronic external stress was also assessed by asking the participants to describe in details the quality of nine domains of their lives in the past 6 months, for example, relationships with in-laws, finances, spouse's health, etc. They then rated each specific domain on a scale of 9 (1=very positive circumstances, 9= very stressful circumstances).

After the 4 years the 172 couples' results on the 5 trajectories were then assessed in relation to their initial levels of neuroticism, chronic stress, anger, aggression, self-esteem, problem solving affect. Results showed that in both woman and men, and in varying degrees, the three most distressed trajectory groups: minimal decline-moderate, substantial decline-moderate, and substantial decline-low all had initial positive z-score values (above 0) of maladaptive personalities (neuroticism, self-esteem), chronic stress, aggression, and negative affect, and negative z-scores (below 0) for positive affect.

Contrary to the other two most satisfying groups, namely, stable high and minimal decline-moderately high, that showed initial negative z-scores (below 0) for maladaptive personalities (neuroticism, self-esteem), chronic stress, aggression, and negative affect and initial positive z-scores (above 0) for positive affect. The highest discrepancy on these values was between the spouses in the lowest group of satisfaction and the two highest groups of satisfaction. In other words spouses of the distressed groups manifested more maladaptive personalities, chronic stress, aggression and negative affect and less positive affect than the spouses in the two most satisfied groups at the beginning of the study. Lavner and Bradbury (2010) concluded that these results do not stand strong on their own but need more future studies to increase their validity. However, the authors stated that the results support the earlier postulates that the traits couples bring in to the marriage, the stress they experience and the

quality of their conversations in time of conflict do play a role in differentiating between spouses who differ in their experiences of marital satisfaction.

Relationship conflict was also found to be negatively associated with marital satisfaction (Gordon & Chen, 2016). The interactions of the couple in a conflict, which could be positive or negative, influence the quality of marriage (Fletcher & Kerr, 2010). Communication is another major aspect of relationship functioning. The styles of communication (positive, negative) between the partners are widely believed to influence relationship satisfaction (Lavner, Karney, & Bradbury, 2016). Another important aspect is inherent personality traits that each partner brings into the marriage. According to Karney and Bradbury (1995), the inherent personality traits affect how partners respond to one another, which subsequently, directs the trajectory of marital satisfaction. In summary, whatever the partners bring in to the marriage could cause conflict or stress.

Self-control and impulsivity of partners were also highlighted in studies revealing a negative relationship with marital satisfaction (Luchies, Finkel, & Fitzsimons, 2011). A recent study by Tan, Jarnecke, and South (2017) used the vulnerability-adaptation-model (VSA) to build a basis for their analysis of impulsivity and communication variables with marital satisfaction of 100 couples. By impulsivity, the researchers referred to the “the tendency to act spontaneously and without deliberation” (Carver, 2005, p.313). Communication, on the other hand, was divided into constructive and destructive, which was more subdivided into demand withdrawal, and avoidance-withholding. In this study, the VSA model posits that spouses bring in to their marriage past vulnerabilities in the form of personality traits (impulsivity) or past experiences (alcoholic parent) which affect their marriage. The second factor consists of the stressors and life events (poverty, chronic illness) the couples face that misplaces their energy

and takes it away from relationship maintenance. The third factor consists of the adaptive or maladaptive processes (conflict management, partner support) that represent the interactions and the behaviors of the couple. The present study investigates impulsivity (vulnerability) and communication (adaptive process) in relation to marital satisfaction. Impulsivity “the tendency to act spontaneously and without deliberation” (Carver, 2005, p.313). They proposed that impulsivity will be negatively correlated with a person’s own marital satisfaction.

Communication was divided into constructive and destructive, which was more subdivided into demand withdrawal, and avoidance-withholding. The study proposed that impulsivity will be negatively related to constructive communication style and positively related to destructive communication styles. Results showed that individuals who reported high on impulsivity reported less levels of satisfaction in their marriage as did their partners. In line with their hypothesis about communication, individuals with high impulsivity reported lower levels of constructive communication and higher levels of destructive communication styles as did their partners. This corroborates previous research that suggested that impulsivity has an effect of inhibiting positive behaviors and promoting negative ones. This study provided evidence that internal traits of the individual creates tension in the interaction between the partners.

Other studies targeted self-esteem and attachments styles (Erol & Orth, 2013), personal values and attitudes (Leikas, Ilmarinen, Verkasalo, Vartiainen, & Lönnqvist, 2018), and conflict resolution styles (Schneewind & Gerhard, 2002) to name a few. Kamel Abbasi, Tabatabaei, Agha mohammadiyan Sharbaf, and Karshki (2016) investigated the association of attachment styles with marital satisfaction in 450 married couples in Mashhad, Iran. The study collected self-report data from the participants. Results showed positive significant relation between secure attachment style and marital satisfaction, significant negative relation between avoidant and

ambivalent attachment style and marital satisfaction. In their regression analysis attachment styles were found to significantly predict marital satisfaction. In line with this, Neff and Karney (2009) showed that personal vulnerabilities, self-esteem and attachment style, influence adaptive processes of the couples which in turn influences marital satisfaction. More specifically, it was found that individuals with lower self-esteem and insecure attachment style exhibited uncertainty about their partner's feelings for them. This led them to consider their daily interactions with the partner as definers of their daily global marital satisfaction. On days where the interactions between the couples were negative, their judgment of their global satisfaction was lower. That said, one of the hypotheses of this study attempted to show that there is a significant, negative correlation between intra-dyadic stress and marital satisfaction.

Spillover Effect

Stress spillover effect has been substantiated with myriad of studies that regularly proved that stress spills over from one area of life, such as the contextual factors surrounding married couples, into the relationship triggering internal stress which in turn influences marital satisfaction (Falconier et al., 2013; Randall & Bodenmann, 2009).

STM elaborated on four areas in which external stress from daily hassles influence relationship satisfaction. It proposed that external stress reduces the time spent by the partners together which lessens disclosure of the self, abates feelings of closeness, decreases mutual experiences, diminishes intimacy and sense of closeness, and weakens dyadic coping. Another area of impact is the quality of communication between the partners. With more external stress, communication instances between partners become less positive and more negative which also induces more withdrawal. Lowered physical and mental well-being is also a risk with increased external stressors. Lastly, challenging personality characteristics are more likely to be expressed

between the partners such as aggression, anxiety, intolerance, and rigidity (Randall & Bodenmann, 2009) which in turn may contribute to negative exchanges between the couple (Falconier et al. 2013). All these developments lead to the alienation of the couple thus decreasing their knowledge of each other. When this happens, less is shared between the couple about their personal lives, needs, goals, and interests which technically renders them strangers or increases clashes between them. This alienation increases conflict and decreases the quality of marriage and the couples' satisfaction levels in their marriage (Bodenmann et al. 2007). On another note, stress caused by daily hassles may not be attended to by the partner with understanding and support because of its insignificance. These effects of daily stress on the relationship communication and intimacy create more stress and friction between the partners which in turn may render the partners feeling less satisfied with their relationship.

A number of studies have demonstrated empirical support to the mediating effect of intra-dyadic stress in the relation between extra-dyadic stress from daily hassles and decreased marital satisfaction. Falconier et. al (2013) carried out a study that included 110 heterosexual community couples from the German speaking part of Switzerland to test the propositions of the Systemic Transactional model concerning the individual's psychological and physical health, and the couples' relationship. More specifically, the ways that stress from daily hassles could affect the individual physical and psychological health as well as their couples' relationship satisfaction. An indirect relation between extra-dyadic stress and marital satisfaction was found to be mediated by intra-dyadic stress. Each partner's extra-dyadic stress was positively correlated with their own experience of intra-dyadic stress which in turn was directly and negatively related to their relationship satisfaction. In other words, the stress that each of the partners experienced

from external daily hassles was related to experiencing more individual intra-dyadic stress, which in turn was associated with lower satisfaction in their relationship.

In a review article, Repetti et al. (2009) argued that the small effects of every day stresses experienced by individuals add up to present a long term implication on family dynamics. They found that individuals' social behavior at home after more stressful days at work follows two paths. In the first path individuals who have experiences of high levels of stress at work tend to reduce their social engagement with family members and their emotional expression. Stressed out individuals become more distracted, more socially withdrawn and less responsive to their partner. Examples of such behaviors are watching TV or reading the newspaper instead of having a conversation with the spouse. When this happens individuals become less involved at home by doing less household duties and leisure activities which increases the number of negative experiences in the relationship (Matjasko & Feldman, 2006). Subsequently, couples report that less affection is expressed and less time is spent together with the partners (Neff & Karney, 2004). The second path represents individuals who after a stressful day exhibit more irritability and anger display with their partners. Physiologically, cortisol levels of individuals who had a stressful day were found to be relatively high in the evening at home (8:00 pm). Emotionally, negative mood was found to predict daily changes in angry marital behaviors.

In a study done by Buck and Neff (2012) 171 heterosexual newlywed couples participated in the study. The aim of the study was to study the phenomenon called spillover, where stress external to the marriage (e.g. Work stress, finances) spills over into the relationship and affects relationship well-being. More specifically the study investigated the specific mechanism through which stress may lead to dysfunctional relationship patterns, namely self-regulatory depletion. Self-regulatory theories posit that a lot of effort is required to cope with

external stress which in turn depletes the couple from their regulatory resources. Thus the couple is left with little energy to attend to their personal relationship concerns. Couples that participated in the study were asked to write a daily diary for 14 days about their daily external stress, self-regulatory depletion state, specific behaviors within the relationship, and marital appraisals.

One of the questions addressed in this study was whether variations in daily external stress would predict consequent changes in the couples' relationship functioning? In addressing relationship functioning the study targeted the marital behaviors of the spouses towards each other and their marital appraisals or how they thought about their marriage? This question is basically linking extra-dyadic stress with intra-dyadic stress in the form of positive or negative behavior towards the spouse on one hand and extra-dyadic stress with marital satisfaction in the form of positive or negative appraisal about the marriage on the other hand. Extra-dyadic stress was linked to increasing intra-dyadic stress in couples on a daily basis. In other words, extra-dyadic stress experienced and reported by the couples was linked to their experience of tension within the relationship, negative interaction between the spouses and negative appraisal of the relationship by depleting their regulatory resources.

The second question was related to the mechanism that this transfer of stress from outside to the inside of the relationship happens, and they proposed that depletion of regulatory resources because of experiencing extra-dyadic stress would increase intra-dyadic stress (negative behavior towards the spouse) and lower marital quality/satisfaction (thinking more negatively about the marriage). Within-person analyses of the diaries showed that stress spillover was experienced by the couples. It was revealed that on days when couples reported experiencing more daily stress they also reported engaging in more negative behaviors towards the partner and assessed their

relationship with less positivity. Further analyses of the data substantiated that self-regulatory depletion was responsible for the spillover effects.

In their study Ledermann et al. (2010) intended to better comprehend the relation between daily external stress and daily stress inside the relationship on one hand, and marital functioning variables on the other hand, namely, marital communication in conflict situations and marital quality. 345 heterosexual couples from the German-speaking part of Switzerland participated in the study. Their hypotheses were verified. On one hand it was found that there is a direct positive relationship between external stress and relationship stress, i.e., the higher the external stress experienced by the couples the higher is their relationship stress experience. On the other hand, relationship stress was negatively associated with both marital communication in conflict situations and marital quality. This indicated that the more the couples suffer from internal stress the less positive is their marital communication and the less is their satisfaction in their marriage. Thirdly, the mediating role of relationship stress was verified as well. The relation between one's own external stress and marital satisfaction is mediated by one's own relationship stress.

Breitenstein et al. (2017) examined stress spillover effect and dyadic coping in 96 Swiss heterosexual adult couples and 124 Swiss late adolescent couples that are not cohabitating but have been in a serious relationship for at least 1 year. The study's primary hypothesis targeted the relation between extra-dyadic stress and intra-dyadic stress and relationship satisfaction among adults and adolescent couples. The study also aimed at comparing the two samples. The results suggested a significant positive effect between extra-dyadic stress and intra-dyadic stress in the adult sample but not in the adolescent sample. Intra-dyadic stress was found to be negatively correlated with relationship satisfaction in both the adult and adolescent samples. In

line with their proposed hypothesis, spillover effect was found in the adult sample where intra-dyadic stress was controlled as the mediator. The results show that extra-dyadic stress influenced relationship satisfaction negatively through an increase in intra-dyadic stress in adult samples only.

Ferguson (2012) examined spillover of a specific external chronic stressor, coworker incivility, into the family and its effect on marital satisfaction. The study posited that stress experienced by a person at work because of coworker incivility will probably affect the person at home by shaping his/her attitudes towards relationship with the partner. The sample consisted of 190 full time incumbents and their partners. The study found that 1. The experience of work incivility is positively related to the partners' perception that the stress is transmitted back home. 2. Work incivility experiences negatively relate to the targets marital satisfaction. 3. The relation between work incivility and marital satisfaction of the targets is mediated by stress transmission. This demonstrates that spillover of external stress has a significant effect on the person's marital satisfaction where the resultant negative interaction between the partners lowered the satisfaction experience.

In order for couples to maintain their relationship they should be able to effectively navigate the ups and downs of their daily interaction with the partner. How these experience affect the couples' global satisfaction with marriage was examined by Neff and Karney (2009). The aim was to understand if daily external stress was associated with more reactivity to specific experiences within the relationship and more covariance with global relationship satisfaction.

In study 1 diary data were collected for a duration of 7 days from 146 newly married couples from the southern parts of the United States. The study examined if the spouses who reported to be most reactive to daily specific experiences within their relationships had the

highest levels of external stress in their lives. The results showed that the spouses who reported more stress also were the ones who reported more negative evaluations of their daily experiences with the partner which in turn were related to more covariance of their global relationship satisfaction.

In the second study, 7-day diary data were collected from 82 newlywed couples at three different points in time over a duration of 4 years. The diaries evaluated the daily global and specific perceptions of the couples of their marriages. At the beginning of each diary report period the couples also reported on the levels of external stress they were experiencing at the time. The results revealed that the higher the stress levels experienced by the couples the less they engaged in adaptive processes with their daily experiences with the partner, i.e., higher stress was related with more negative perception of the couples' daily experiences. The results also showed that global relationship satisfaction varied with the variation in the daily experiences of the couples. The more negative daily experiences the less was the reported satisfaction.

Based on the above discussed review of literature section, the current study attempted to show (1) that there is a significant positive relationship between extra-dyadic stress and intra-dyadic stress, and (2) that Intra-dyadic stress among Lebanese couples plays a mediator role of the negative relation between extra-dyadic stress and marital satisfaction.

In summary, the study examined the following hypotheses:

Hypothesis 1: There is a significant, positive correlation between intra-dyadic stress and extra-dyadic stress among married couples in the greater area of Beirut

Hypothesis 2: There is a significant, negative correlation between intra-dyadic stress and marital satisfaction among married couples in the greater area of Beirut

Hypothesis 3: There is a significant, negative correlation between extra-dyadic stress and marital satisfaction among married couples in the greater area of Beirut

Hypothesis 4: Intra-dyadic stress mediates the negative relation between extra-dyadic stress and marital satisfaction among married couples in the greater area of Beirut.

Chapter 3

Method

This chapter consists of the methodology that was used to carry out this study. It includes a general description of the research design, of the sample population, and of the procedure of administration of the surveys. It also includes a more detailed description of the research instruments and of the data analysis. In the end it highlights some of the ethical considerations that were taken into account.

Research Design

A quantitative design aims at identifying variables that affect or relate to a specific outcome (Creswell, 2014). A quantitative non-experimental approach was applied in order to investigate the current study and the relationship of the independent variable (extra-dyadic stress), the mediator (intra-dyadic stress) and the dependent variable (marital satisfaction). The study employed questionnaires.

Participants

The target population of the current study were married couples both the male and the female partners who lived in the Greater Area of Beirut. The study included heterosexual couples that have been legally married for at least 1 year and both partners should have been able to read and understand English to be able to answer the questionnaires. The participants were selected from the general population through a non-probability convenient purposive snowball sample because it only targeted married couples who lived in the greater area of Beirut and who were able to comprehend English. As is shown in Table 1, those who participated in the study were 150 heterosexual couples (N= 300), of which 150 were males and 150 were females. The participants were all adults whose ages ranged between 22 and 74. The couples' years of

marriage ranged from 1 to 51 years. 115 couples (N= 230) reported that they had children and 35 couples (N=70) had no children. A more detailed summary of the demographic data is found in Table 1.

Table 1
Frequency and percentages of Demographics (N=300)

Variable	f	%
<i>Gender</i>		
Male	150	50
Female	150	50
<i>Age Groups</i>		
22-25	20	6.6
26-35	101	33.6
36-45	84	28
46-55	54	17.9
56-65	31	10.5
> 65	10	3.3
<i>Years of marriage</i>		
1-5	121	40.3
6-10	54	18
11-15	30	10.1
16-20	28	9.3
21-25	13	4.3
26-30	22	7.3
31-35	22	7.3
36-40	2	0.7
41-45	4	1.4
46-51	4	1.4
<i>Children</i>		
Yes	230	76.7
No	70	23.3
<i>Educational Level</i>		
Brevet	27	9
Baccalaureate	33	11
Bachelor	121	40.3
Masters	83	27.7
Doctoral	15	5
Others	21	7
<i>Religion</i>		
Christian	238	
Muslim	59	10.7

<i>How Religious Are you</i>		
Non-religious at all	14	4.7
2	4	1.3
3	7	2.3
4	10	3.3
5	43	14.3
6	33	11
7	45	15
8	72	24
9	33	11
Very religious	37	12.3

Materials

The questionnaire package that was distributed to the people included a participant information letter (See appendix A) and a participant informed consent form (See Appendix B) which included the purpose of the study, the name and the contact information of the researcher, the average time expected to fill the questionnaires, the statement of participants' confidentiality, and the right to withdraw from the study at any point of time. Following this came the demographic questionnaire (See Appendix C) which covered several areas, such as, gender, age, years of marriage, presence of children or not, number of children if present, educational level, employment status, household income, religion and sect, and how religious they are. The three psychological tests, namely, the Intra-dyadic Subscale from the Multidimensional Stress Questionnaire for Couples (MSDQ-I), the Extra-dyadic Subscale from the Multidimensional Stress Questionnaire for Couples (MSDQ-E), and the Relationship Assessment Scale (RAS) followed the demographic questionnaire (See Appendices D, E, & F). A detailed description of these tests will follow.

Intra-dyadic Stress (MSDQ-I). Chronic stress originating inside the relationship between the couple, internal stress, was assessed using the Internal Stress Subscale of the

Multidimensional Stress Questionnaire for couples (MSQ-C). The 10-item chronic intra-dyadic stress subscale from the Multidimensional Stress Questionnaire for couples, MSQ-C (Bodenmann, 2007) was used before to assess chronic stress internal to the couple's relationship. The MSQ-C is an adaptation of the original Hassles Scale (Kanner, Coyne, Schaefer, & Lazarus, 1981) that included minor stressors, both internal and external to the relationship. The scale consists of 10 items. Participants rate on a 4-point Likert-type scale (ranging from 1 = not at all to 4 = very stressful) how stressful situations initiating within the relationship (e.g., differences of opinions with your partner, feeling neglected by the partner) have been over the past 12 months. An aggregated score represents the individual's internal stress level. The validity and reliability of the MSQ-C have been established in previous studies in German (Bodenmann, 2007, Bodenmann, Schär, & Gmelch, 2008). In the Falconier et al. 2013, the internal consistency of this scale in the German language was $\alpha = .82$ for men and $\alpha = .84$ for women. In another study assessing the role of internal stress on relationship satisfaction in intercultural heterosexual couples in the United States, the internal consistency of the scale in its English version was $\alpha = 0.85$ for the non Us. Partner $\alpha = 0.85$, and for the US partner $\alpha = .87$ (Holzapfel, Randall, Tao, & Iida, 2018).

Extra-dyadic Stress (MSDQ-E). Chronic stress originating from daily hassles outside the couples' relationship was measured using the 8-item chronic intra-dyadic stress subscale from the Multidimensional Stress Questionnaire for couple, MSQ-C (Bodenmann, 2007). Participants rate on a 4-point Likert-type scale (ranging from 1 = not at all to 4 = very stressful) how stressful daily situations outside their couple's relationship (e.g., deadline pressure in work or education, conflicts with neighbors) have been over the past 12 months. A higher score shows more stress. The study by Falconier et al. (2013) did not calculate Cronbach alpha of the

extra-dyadic scale (German version). The researchers proposed that the measure covers different life domains and it cannot be considered a psychometric scale, yet the mean score of all eight items reflects the individual stress level (Falconier et al., 2013). However, in the validation of the Japanese version of the MSQ-C (English version), the confirmatory factor analysis indicated that the 8 items loaded on one factor and that external stressors factor showed acceptable construct validity. Moreover, Cronbach's alpha for males was $\alpha = 0.922$ and for females $\alpha = 0.844$. However a study by Merz, Meuwly, Randall, and Bodenmann (2014) reported a Cronbach alpha $\alpha = 0.66$ of the 8-item scale of external stressors. Another study that used a Chinese version of the extra-dyadic 8-item measurement reported an acceptable Cronbach alpha $\alpha = 0.69$ for women and $\alpha = 0.69$ for men (Xu, Hilpert, Nussbeck, & Bodenmann, 2018).

Relationship Assessment Scale (RAS). Marital satisfaction was assessed using the Relationship Assessment Scale (RAS). The RAS was developed by Hendrick (1988) and it includes 7 items that measure global relationship satisfaction. Respondents answer each item using a 5-point scale ranging from 1 (low satisfaction) to 5 (high satisfaction). A higher score on the RAS indicates higher relationship satisfaction. Sample questions include: "How well does your partner meet your needs?" and "How much do you love your partner?". Two items are reverse-scored (4 and 7). The validity and reliability of the RAS are well established (Hendrick, Dicke, & Hendrick, 1998). The internal consistency of the English version of RAS was reported to be $\alpha = 0.87$ for both partners in a study that examined the role of internal stress on relationship satisfaction in intercultural heterosexual couples (Holzapfel, Randall, Tao, & Iida, 2018). In its German version the internal consistency of this scale was reported to be $\alpha = 0.88$ for men and $\alpha = 0.92$ for women (Falconier et al., 2013).

Procedure

The participants were approached and invited to participate in the study by the researcher personally and by six psychology students who have finished or were finishing their Master's degree. The researcher and the recruited students approached married couples from their work or social environments who met the criteria for the study and who lived in the Greater Area of Beirut. Then the participants were asked to identify and recruit other prospective couples by word of mouth and by providing the researchers their contact number if they agreed. The new prospective participants were then contacted and approached by the researchers, were invited to participate, and were asked to recruit other couples. The researcher and the psychology students met the couples personally and provided the couples an information letter stating the purpose and significance of the study, and asking the partners to participate. Couples did not receive any incentives, but were informed of the potential benefits of this study, which was to increase the knowledge about marital satisfaction in relation to stress in the Greater Beirut Area, Lebanon. If the couples agreed to this proposal, the required consent form, participation information letter, demographic questionnaire, and the three questionnaires were provided to them. Participants who agreed to participate signed the consent form. The consent form informed the participants that the questionnaires and results remained anonymous since no identifiers (e.g. name and contact information) were requested. It also gave them the freedom to voluntarily participate in the study and the freedom to withdraw at any point in time if they choose to. With all the couples met, it was asked that the male and the female partner fill out the questionnaire each on their own and without sharing any info while they were filling it out to prevent any bias of the information. The questionnaire package was marked with the same number for each couple. For example the first male and female to participate both got the number 1 as an identifier on their

package. They were then asked to put their questionnaire package in an envelope and seal it before giving it to the researcher. 200 couples (400 individuals) were approached in total and only 150 couples (300 individuals) participated in the study.

Participation in the study was of minimal risk to participants. Probability and magnitude of harm or discomfort estimated for the participation in the research were not larger than those usually encountered in daily life or during routine physical or psychological tests. It was an opportunity for the couples to express themselves and increase their awareness of challenges they might face in their marriage. If participants were impacted adversely and were facing marital distress, they were asked to contact the investigator who will provide a contact list of licensed psychologists they can seek. Moreover, participants who are interested in the results of the study could contact the investigator for a summary of the results after the data analysis.

It is important to note that the researcher carried out a pilot study with 20 couples and tested the reliability of the three scales. The researcher deleted one item (item 5) from the original Intra-dyadic stress scale after it showed a much higher internal consistency coefficient. Later, in the actual study, another reliability check was made after all the data were collected and it revealed a low internal consistency, this time, in the extra-dyadic scale. The researcher removed one item (item 1) from the original scale, when carrying out the statistical analysis, which resulted in a higher internal consistency of the scale.

Data Analysis

After collecting the data the researcher used the statistical program SPSS to produce the statistical results. First a descriptive analysis of the data was carried out that showed the frequencies and percentages of the different demographic questionnaire items, such as gender, age, and years of marriage. It was then followed with a reliability check of the three scales. A t-

test was carried out to compare the two groups (male and female) on the main variables of the study; independent variable (extra-dyadic stress), mediator (intra-dyadic stress) and independent variable (relationship satisfaction). To examine our proposed hypothesis we ran a set of correlational analyses and then a series of regression analyses. The correlation and the regression analyses of the main variables were run in such an order to reveal if intra-dyadic stress has a mediating role between the extradyadic stress and relationship satisfaction of the individuals in the study. Furthermore, for exploratory purposes, more regressions were used that included the demographic information collected and the main variables of the study. Then regression analyses that included the demographic info, the three main variables of the individuals and the three main variables of their partners' were carried out for each gender group separately. In other words the regression for the male group included all of the male demographic information along with their results on intra-dyadic stress, extra-dyadic stress, and marital satisfaction and the same three variables of their female partners. An Anova test was later run to compare the different religious sects of the participants on their intra-dyadic stress, extra-dyadic stress and relationship satisfaction results.

Ethical Consideration

The study was granted the IRB approval to proceed from the Ethics Committee at Haigazian University in line with the American Psychological Association guidelines of appropriate ethical practice. The researcher and the students who helped in collecting the data made sure the participants read the consent form and agreed to participate. Some of the participants preferred not to write their names on the consent form, but were willing to participate.

Chapter 4

Results

The purpose of this study is to examine two independent variables, namely, extra-dyadic stress and intra-dyadic stress, in relation to one independent variable; marital satisfaction among Lebanese couples from the Greater Area of Beirut. In this chapter, we present reliability analysis of the scales, statistical analysis results for testing the proposed hypotheses, and some extra exploratory analysis of the data.

Reliability Analysis

Reliability analyses were computed for the scales used in the study amongst males and females. The Relationship Assessment Scale (RAS) and Internal Stress subscale of the Multidimensional Stress Questionnaire for Couples (MSQ-C) showed to have high internal consistencies since their Cronbach's alpha values were above .7 for both males and females (refer to Table 2). Originally the Extra-dyadic Stress subscale of the MSQ-C showed a Cronbach's alpha score of .65 for males and .66 for females. Both scores are below the cutoff value of .7 that determines whether the internal consistency of the scale is acceptable (George & Mallery, 2003). By removing item 1 (Job/education; bustle, deadline pressure, high demands, being unchallenged, lacking acknowledgment and career opportunities, etc.) of the Extra-dyadic Stress subscale of the MSQ-C increased the reliability of the subscale to .70 for females without affecting that of the males. . The final results of the Cronbach's alpha scores of the scales used throughout the study are presented in table 2 below.

Table 2*Reliability of the Scales and Subscales for males and females: Cronbach's alpha*

Scales and Subscales		Cronbach's alpha per current study	Previous Cronbach's alpha
Relationship Assessment Scale (RAS)	Male	.93	.88
	Female	.91	.92
Internal Stress Subscale of the Multidimensional Stress Questionnaire for Couples (MSQ-C)	Male	.89	.82
	Female	.88	.84
Extra-dyadic Stress Subscale of the Multidimensional Stress Questionnaire for Couples (MSQ-C)	Male	.65	.69
	Female	.7	.69

Cronbach alpha scores of Extra-dyadic scale fell into the acceptable range ($\alpha = 0.7$ females, $\alpha = 0.65$ males; George & Mallery, 2003). Cronbach alpha scores of Intra-dyadic Scale and Relationship assessment Scale fell in the good and excellent range respectively ($\alpha = 0.89$ males, $\alpha = 0.88$ females; $\alpha = 0.93$ males, $\alpha = 0.91$ females; George & Mallery, 2003). Cronbach alpha of all 3 scales compare favourably with previous findings.

Hypothesis Testing

Hypothesis 1: There is a significant, positive correlation between intra-dyadic stress and extra-dyadic stress.

To test hypothesis 1, a Pearson's correlation coefficient was computed to assess the relationship between extra-dyadic stress scores and intra-dyadic stress scores. The results revealed a significant, positive correlation between the two variables ($r = .28$, $p = 0.01$) (refer to Table 3). Therefore, hypothesis 1 was supported.

Table 3

Correlation matrix between marital satisfaction, intra-dyadic stress, and extra-dyadic stress

		Marital Satisfaction	Intra-dyadic Stress	Extra-dyadic Stress
Marital Satisfaction	Pearson Correlation	1	-.721**	-.162**
	Sig. (2-tailed)		0.000	0.005
	N	300	300	300
Intra-dyadic Stress	Pearson Correlation	-	1	.281**
	Sig. (2-tailed)	-		0.000
	N	-	300	300
Extra-dyadic Stress	Pearson Correlation	-	-	1
	Sig. (2-tailed)	-	-	
	N	-	-	300

Hypothesis 2: There is a significant, negative correlation between intra-dyadic stress and marital satisfaction.

To test hypothesis 2, a Pearson's correlation coefficient was computed to assess the relationship between the intra-dyadic stress and marital satisfaction scores. The results revealed a significant, negative correlation between the two variables ($r = -.72, p = 0.01$) (refer to Table 3). Therefore, hypothesis 2 was supported.

Hypothesis 3: There is a significant, negative correlation between extra-dyadic stress and marital satisfaction.

To test hypothesis 3, a Pearson's correlation coefficient was computed to assess the relationship between the extra-dyadic stress and marital satisfaction scores. The results revealed a significant, negative correlation between the two variables ($r = -.16, p = 0.01$) (refer to Table 3). Therefore, hypothesis 3 was supported.

According to Baron and Kenny (Hollis-Walker & Colosimo, 2016), mediation is determined by running a series of regression equations. The results must show that the independent variable significantly predicts the proposed mediator as well as the dependent variable and that the mediator predicts the dependent variable while lessening the effect of the independent variable on the dependent variable (Hollis-Walker & Colosimo, 2016).

As such, linear regression analyses were conducted to test the following hypothesis:

Hypothesis 4: Intra-dyadic stress mediates the negative relation between extra-dyadic stress and marital satisfaction among married couples in the greater area of Beirut.

To test hypothesis 4, three analyses were carried out. First, a linear regression analysis was conducted with marital satisfaction as the dependent variable and extra dyadic stress as the independent variable. The results of the analysis indicated that extra-dyadic stress explained approximately 2.6% of the variance ($R^2 = .026$, $F(1, 298) = 8.05$, $p < .05$) (refer to Table 4a). Extra-dyadic stress came out as a significant, negative predictor of marital satisfaction ($B = -0.26$, $p < .05$) (refer to Table 4b).

Table 4a

Linear regression analysis for extra-dyadic stress and marital satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.162 ^a	0.026	0.023	6.24778

a. Predictors: (Constant), Extra-dyadic Stress

Table 4b
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	32.238	1.445		22.304	0.000
	Extra-dyadic Stress	-0.264	0.093	-0.162	-2.838	0.005

a. Dependent Variable: Marital Satisfaction

Second, a linear regression analysis was conducted with intra-dyadic stress as the dependent variable and extra-dyadic stress as the independent variable. The results of the analysis indicated that extra-dyadic stress explained approximately 7.9% of the variance ($R^2 = .079$, $F(1, 298) = 25.50$, $p < .001$) (refer to Table 5a). Moreover, the analysis showed that extra-dyadic stress is a significant, positive predictor of intra-dyadic stress ($B = .418$, $p < .001$) (refer to Table 5b).

Table 5a
Linear regression analysis for intra-dyadic stress and extra-dyadic stress
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.281 ^a	.079	.076	5.55771

a. Predictors: (Constant), Extra-dyadic Stress

Table 5b
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.089	1.286		7.847	.000
	Extra-dyadic Stress	.418	.083	.281	5.050	.000

a. Dependent Variable: Intra-dyadic Stress

Third, a multi-linear regression analysis was conducted with marital satisfaction as the dependent variable and both intra-dyadic stress and extra-dyadic stress as the independent variables. The results of the regression analysis indicated that the two predictors of intra-dyadic and extra-dyadic stress explained about 52% of the variance ($R^2 = 0.522$, $F(2, 297) = 161.96$, $p < 0.001$) (refer to Table 6a). Only intra-dyadic stress came out as a significant, negative predictor of marital satisfaction ($B = -0.802$, $p < .001$) (refer to Table 6b). Despite coming out as a significant, negative predictor of marital satisfaction when entered alone, extra-dyadic stress did not significantly predict marital satisfaction within the multi-linear regression analysis. Moreover, after entering intra-dyadic stress into the equation, extra-dyadic stress' effect on marital satisfaction lessened.

Table 6a

Multi-Linear regression analysis for marital satisfaction, intra-dyadic stress, and extra-dyadic stress

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.722 ^a	0.522	0.518	4.38641

a. Predictors: (Constant), Intra-dyadic Stress, Extra-dyadic Stress

Table 6b

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	40.328	1.115		36.179	0.000
	Extra-dyadic Stress	0.071	0.068	0.044	1.045	0.297
	Intra-dyadic Stress	-0.802	0.046	-0.733	-17.538	0.000

a. Dependent Variable: Marital Satisfaction

Based on the regression analyses conducted earlier, all three criteria of Baron and Kenny's test of mediation were satisfied. The independent variable of extra-dyadic stress significantly predicted each of the proposed mediator variable of intra-dyadic stress and the dependent variable of marital satisfaction. Moreover, only intra-dyadic stress came out as a significant, negative predictor of dependent variable of marital satisfaction and lessened the effect of extra-dyadic stress on marital satisfaction when entered into the regression model along with extra-dyadic stress as independent variables. Therefore, based on these findings, hypothesis 4 was supported, suggesting that intra-dyadic stress acts as a complete mediator of the negative relation between extra-dyadic stress and marital satisfaction among married couples in the greater area of Beirut.

Exploratory Analysis

Further analyses were conducted to explore the data collected. Pearson correlation analyses were conducted to explore the correlation between the demographic data collected and marital satisfaction. Per the Pearson's correlation coefficient, marital satisfaction showed to significantly and positively correlate with education level ($r = .16, p < .01$), household income ($r = .24, p < .01$), and religiosity ($r = .16, p < .01$) (refer to Table 7). This suggests that as household income, education level, and religiosity increase, marital satisfaction increases and vice versa. Moreover, a significant, negative correlation was observed between marital satisfaction and age ($r = -.18, p < .05$), years of marriage ($r = -.25, p < .001$), partner internal stress ($r = -.45, p < .01$), and partner external stress ($r = -.13, p < .05$) (refer to Table 7). This suggests that as age, years of marriage, partner internal stress, and partner external stress increase, marital satisfaction decreases and vice versa.

Table 7a*Correlation matrix between marital satisfaction, age, and years of marriage*

		Marital Satisfaction	Age	Years of Marriage
Marital Satisfaction	Pearson Correlation	1	-.179**	-.251**
	Sig. (2-tailed)		0.002	0.000
	N	300	300	300
Age	Pearson Correlation	-	1	.872**
	Sig. (2-tailed)	-		0.000
	N	-	300	300
Years of Marriage	Pearson Correlation	-	-	1
	Sig. (2-tailed)	-	-	
	N	-	-	300

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

**. Correlation is significant at the 0.05 level (2-tailed).*

Table 7b*Correlation matrix between marital satisfaction, education level*

		Marital Satisfaction	Education Level
Marital Satisfaction	Pearson Correlation	1	.160**
	Sig. (2-tailed)		0.007
	N	300	279
Education Level	Pearson Correlation	-	1
	Sig. (2-tailed)	-	
	N	-	300

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

**. Correlation is significant at the 0.05 level (2-tailed).*

Table 7c*Correlation matrix between marital satisfaction, household income, and religiosity*

		Marital Satisfaction	Household Income	Religiosity
Marital Satisfaction	Pearson	1	.243**	.155**
	Correlation			
	Sig. (2-tailed)		0.000	0.007
	N	300	300	298
Household Income	Pearson	-	1	0.062
	Correlation			
	Sig. (2-tailed)	-		0.289
	N	-	300	298
Religiosity	Pearson	-	-	1
	Correlation			
	Sig. (2-tailed)	-	-	
	N	-	-	300

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

**. Correlation is significant at the 0.05 level (2-tailed).*

Table 7d*Correlation matrix between marital satisfaction, partner internal stress, and partner external stress*

		Marital Satisfaction	Partner Internal Stress	Partner External Stress
Marital Satisfaction	Pearson	1	-.454**	-.129*
	Correlation			
	Sig. (2-tailed)		0.000	0.025
	N	300	300	300
Partner Internal Stress	Pearson	-	1	.281**
	Correlation			
	Sig. (2-tailed)	-		0.000
	N	-	300	300
Partner External Stress	Pearson	-	-	1
	Correlation			
	Sig. (2-tailed)	-	-	
	N	-	-	300

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

**. Correlation is significant at the 0.05 level (2-tailed).*

Additionally, a multi-linear regression analysis was conducted, for males and females separately, with marital satisfaction as the dependent variable and intra-dyadic stress and extradyadic stress as independent variables to check whether the proposed hypothesis of mediation stands correct for males and females separately.

The results of the regression analysis only intra-dyadic stress came out as a significant, negative predictor of marital satisfaction for males ($B = -0.869, p < .001$) (refer to Table 8).

Table 8
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	40.426	1.561		25.893	.000
	Extra-dyadic Stress	.123	.094	.069	1.307	.193
	Intra-dyadic Stress	-.869	.058	-.789	-14.898	.000

a. Dependent Variable: Marital Satisfaction

Similarly, the results showed only intra-dyadic stress to significantly and negatively predict marital satisfaction in females ($B = -.711, p < .001$) (refer to table 9).

Table 9
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	40.174	1.592		25.232	.000
	Extra-dyadic Stress	-.003	.099	-.002	-.031	.975
	Intra-dyadic Stress	-.711	.072	-.656	-9.845	.000

a. Dependent Variable: Marital Satisfaction

Moreover, a multi-linear regression analysis was conducted with marital satisfaction as the dependent variable and age, years of marriage, presence of children, number of children,

number of previous marriages, number of children from previous marriages, cohabitation status, religiosity, partner internal stress, partner external stress, intra-dyadic stress, and extra-dyadic stress as independent variables. The regression analysis was done for the male and female samples separately to check the predictability of marital satisfaction in relation to all the demographic factors and variables of the study. Moreover, it is important to note that education level and employment status were not entered into the analysis as they are nominal variables that are not dichotomous.

Per the results of the analyses, only partner internal stress came out as a significant, negative predictor of marital satisfaction among the female sample ($B = -.527, p < .01$) (refer to Table 10).

Table 10
Coefficients^a

Model		Unstandardized		Standardized	T	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	28.253	9.979		2.831	.005
	Age	.044	.068	.088	.648	.518
	Religiosity	.352	.171	.132	2.055	.042
	Years of Marriage	-.139	.075	-.273	-1.855	.066
	Cohabitation Status	1.754	5.446	.024	.322	.748
	Number of Children	1.042	1.252	.074	.833	.406
	Number of Previous	2.946	2.674	.080	1.101	.273
	Marriages					
	Number of Children					
	from Previous	.347	.482	.077	.720	.473
	Marriages					
	Partner Internal Stress	-.208	.070	-.211	-2.970	.004
	Partner External					
	Stress	.114	.121	.071	.938	.350
	Intra-dyadic Stress	-.527	.081	-.486	-6.483	.000
	Extra-dyadic Stress	-.089	.119	-.060	-.748	.456

a. Dependent Variable: Marital Satisfaction

Chapter 5

Discussion

The purpose of the study was to investigate the spillover effect of stress in marriages. More specifically, the study aimed at understanding the relationship between extra-dyadic stress and marital satisfaction with a special emphasis on the role of intra-dyadic stress as a mediator between these two variables among a sample of Lebanese couples living in the greater area of Beirut. This chapter discusses the findings of the investigated hypotheses.

The first hypothesis stated that there would be a significant, positive correlation between intra-dyadic stress and extra-dyadic stress. This hypothesis was confirmed and it is in line with previous research. Along with many other findings, Falconier et al. (2013) has specifically found a significant relationship between extra-dyadic stress experienced by couples in the German speaking part of Switzerland and their intra-dyadic stress. Similar to Falconier et al. (2013), Ledermann et al. (2010) found that higher external stress levels in couples were associated with higher levels of internal stress. Breitenstein et al. (2017) explored, among other things, the relationship between extra-dyadic stress and intra-dyadic stress in a sample of adult married couples. Results of the adult sample were in line with previous studies relating extra-dyadic stress to intra-dyadic stress. Breitenstein et al. (2017) explained the results by proposing that adults bring the stress they encounter in their daily lives home. Repetti et al., (2009) supports these findings by stating that negative moods and physiological arousals that result from stressful incidents outside the home are expressed in the family. Similar substantiating results were found in myriad other studies (Allen et al., 2010; Bodenmann and Cina, 2006; Buck & Neff, 2012; Langer, Lawrence, & Barry, 2008; Randall & Bodenmann, 2009).

Extra-dyadic stress in this study referred to continuous, minor stress-inducing incidents in the daily life of the individual. In line with the Systemic Transactional Model, these stressors are considered dangerous because they are seen as trivial and are not given much attention by the individual and the partner as with major life events (e.g. accident, sickness, war, etc.; Falconier et al., 2013). As it seems that the findings of this study among Lebanese couples were consistent with the proposition of the STM. The significant relation between extra-dyadic stress and intra-dyadic stress in Lebanese couples supported the notion that external stressors that are minor happenings of every-day life (e.g. conflicts with neighbors or acquaintances, children upbringing strains, financial situation) experienced by these couples have the same subtle effect on their interaction with the partner.

The mechanism through which extra-dyadic stress influences intra-dyadic stress is referred by Randall and Bodenmann (2009) as spillover. Spillover is the term used to describe a transfer, spillover, of minor chronic stress from situations outside the system of relationship into the interaction between the partners inducing more tension and internal stress (conflict, tension, arguments) than what originally exists. Therefore, the first hypothesis aimed at showing that spillover of stress in Lebanese Couples exists. As it has been proven in other countries and cultures, spillover of stress from the partners' daily events outside their relationship into the interactions within the relationships was present in the sample of Lebanese couples.

To interpret the association between extra-dyadic stress and intra-dyadic-stress further one should first understand how stress functions. When individuals face stress in their environment, a physical and psychological reaction is induced in them (Seyle, 1974), which endures for some time after the stress-inducing incident/s and is brought home at the end of the day (Repetti et al., 2009, Ferguson, 2012). This brought-home-stress then influences the

interaction between couples in a negative way increasing internal stress (Falconier et al., 2013; Randall & Bodenmann, 2009). In corroboration of these findings, the positive correlation between extra-dyadic stress and intra-dyadic stress in the present study represented that couples who experienced higher levels of extra-dyadic stress also reported higher levels of intra-dyadic stress. Thus, the effects of stress in Lebanese couples endure and are brought back home.

So far we know that extra-dyadic stress experienced by Lebanese couples is transferred to the relationship between the partners by increasing intra-dyadic stress. Although the specific mechanisms in which this transfer occurs were not the aim of this study, literature is rich in studies that have explored this relationship. Some examples of mechanisms explored in literature are less time spent with the spouse (Randall and Bodenmann, 2009), increase in expression of problematic personality traits (anger, impatience), depleted self-regulatory resources (Buck and Neff, 2012), and negative communication (Ledermann et al., 2010). These areas are left for future studies to be explored more in depth to help better understand the specific mechanisms of transfer of stress into the marital relationship that apply to of Lebanese couples.

The second hypothesis stated that there would be a significant, negative correlation between intra-dyadic stress and marital satisfaction. This hypothesis was confirmed and it is in line with previous research. Falconier et al. (2013) found a significant correlation between intra-dyadic stress experienced by couples and their marital satisfaction. Similarly, Ledermann et al. (2010) reported that daily internal stress was negatively associated with marital communication between the couples and their marital quality. Breitenstein et al. (2017) reported similar results when examining a sample of married adults, whereby adults who reported high levels of intra-dyadic stress also reported lower levels of marital satisfaction. The relation between intra-dyadic stress and marital satisfaction being significant implies that the influence of internal stress on

marital satisfaction among Lebanese couples should be taken seriously. Randall and Bodenmann (2017) presented a review of studies that have investigated stress and relationship satisfaction whereby they stated that previous studies have confounded extra-dyadic stress and intra-dyadic stress. In their review, Randall and Bodenmann (2017), urged researchers to differentiate between extra-dyadic stress and intra-dyadic stress and their role in relationship satisfaction stating that this distinction gives a clearer and more defined perspective on the ways stress influences marital satisfaction. The significant relation between intra-dyadic stress and marital satisfaction in the present study supported that a distinction between extra-dyadic stress and intra-dyadic stress is appropriate when studying the effects of stress on relationship satisfaction. The negative association between intra-dyadic stress and marital satisfaction among Lebanese couples reflected a decrease in marital satisfaction when internal stress levels were high. Individuals who reported experiencing more internal stress also reported lower levels of marital satisfaction.

The third hypothesis stated that there would be a significant, negative correlation between extra-dyadic stress and marital satisfaction. This hypothesis was confirmed and it is in line with previous research. Totenhagen et al. (2013) reported, using daily diary data, that couples' satisfaction levels and sense of closeness declined on days when they reported more levels of daily hassles. In a similar fashion Buck and Neff (2012) confirmed that a relation between extra-dyadic stress and marital satisfaction exists when couples who have been experiencing high levels of daily external stress in their study also rated their satisfaction levels in marriage with more negativity. Ferguson (2012) found a direct significant negative relation between work incivility stress and marital satisfaction of targeted individuals. Results of the present study revealed that the influence of extra-dyadic stress on marital satisfaction reported in literature

were also true for Lebanese couples of the Greater Area of Beirut. The negative direction of the relationship implied that Lebanese individuals with higher levels of external chronic stress in their lives were less satisfied in their marriages.

STM provided a distinction between major life events and daily chronic events stating that chronic minor external stress' effects on relationships are usually overlooked even though they present a detrimental effect on intimate relationships (Falconier et al; 2013). In a review, Randall and Bodenmann (2009) stated that a majority of the studies in the field of stress and marriage were focused on major life events. Daily minor stressors were addressed more recently in the last decade. However, Randall and Bodenmann (2009) stressed that marital deterioration outcomes were closely related to chronic daily hassles that are managed poorly. The present study which looked at external stressors that are daily minor happenings confirmed the previous assumption made by Randall and Bodenmann (2009) and Falconier et al. (2013). Especially that the relation between the extra-dyadic stress studied and marital satisfaction was significant and negative, implying that these subtle stressors do have a harmful influence on marital satisfaction and should not to be overlooked. Moreover, the results confirm that the detrimental subtle effects of daily hassles on relationship were also manifested among Lebanese married individuals. The danger of external minor daily stressors is that their effect is small and continuous which makes them go unnoticed and unmanaged (Randall & Bodenmann, 2009). These small effects accumulate and lead to several negative behaviors in the relationship which eventually diminishes marital satisfaction (Randall & Bodenmann, 2009). Studies have found that minor external stressors led to deterioration of relationships (Bodenmann & Cina, 2006), poor quality of marriage and divorce (Totenhagen, Butler, & Ridely, 2012), and marital dissatisfaction (Randall and Bodenmann, 2009).

It is important to note that the correlation between extra-dyadic stress and marital satisfaction was weaker than the correlation between intra-dyadic stress and marital satisfaction.

The fourth hypothesis stated that intra-dyadic stress would mediate the negative relation between extra-dyadic stress and marital satisfaction among married couples in the greater area of Beirut. This hypothesis was confirmed. To test the fourth hypothesis, we ran two linear regressions and one multi-linear regression. In the first linear regression, extra-dyadic stress was the independent variable and marital satisfaction the dependent variable. The result of the first regression indicated that extra-dyadic stress predicted 2.6% of the variance and that it came out to be a significant, negative predictor of marital satisfaction. In the second linear regression, extra-dyadic stress was the independent variable and intra-dyadic stress the independent variable. The results showed that extra-dyadic stress predicted 7.9% of the variance. Moreover, the analysis showed that extra-dyadic stress is a significant, positive predictor of intra-dyadic stress. In the multi-linear regression, both intra-dyadic and extra-dyadic stress were the independent variables and marital satisfaction the dependent variable. The results of the regression analysis indicated that the two predictors of intra-dyadic and extra-dyadic stress explained about 52% of the variance. However, only intra-dyadic stress came out as a significant, negative predictor of marital satisfaction. Despite coming out as a significant, negative predictor of marital satisfaction when entered alone, extra-dyadic stress did significantly predict marital satisfaction within the multi-linear regression analysis. Moreover, after entering intra-dyadic stress into the equation, extra-dyadic stress' effect on marital satisfaction lessened.

According to Baron and Kenny, mediation is determined by running a series of regression equations. The results must show that the independent variable, namely extra-dyadic stress, significantly predicts the proposed mediator, namely intra-dyadic stress, as well as the dependent

variable, namely marital satisfaction, and that the mediator predicts the dependent variable while lessening the effect of the independent variable on the dependent variable (Hollis-Walker & Colosimo, 2016). Based on the regression analyses conducted earlier, all three criteria of Baron and Kenny's test of mediation were satisfied. Therefore the results supported that spillover of stress from outside the relationship to the relationship existed, and that intra-dyadic stress mediates the relationship between extra-dyadic stress and marital satisfaction in a sample of married Lebanese couples. Moreover, the specific directions of the relationships between the variables indicated that higher levels of extra-dyadic stress outside the relationship increased intra-dyadic stress between the partners in the relationship which in turn decreased marital satisfaction of the individuals. The results were in line with previous studies. Falconier et al. (2013) found that extra-dyadic stress of married individuals was indirectly related to their own marital satisfaction through the mediating effect of increased intra-dyadic stress. Thus, stress experienced outside the relationship increases stress in the relationship between the partners which in turn decreases individuals' satisfaction in their marriage. Buck and Neff (2017) reported that couples who experienced higher levels of external daily stress on certain days engaged in more negative behaviors with the partner and thought less positively about their relationship. Similarly, Ledermann et al. (2010) linked higher experience of external stress of married individuals to higher experience of internal stress in their relationship to less quality ratings of their marriage. Ledermann et al. (2010) stated that the direct relationships between extra-dyadic stress and relationship stress, and relationship stress and marital satisfaction were stronger than the direct relationship between extra-dyadic stress and marital satisfaction. This further supports the mediation role of relationship stress. Breitenstein et al. (2017) substantiated the mediating mechanism as well in a sample of adult married couples. Ferguson (2012)

examined work stressors and substantiated once again the spillover of stress from outside the relationship into the relationship by increasing internal stress, namely negative behaviors with the partners, which was linked to lower marital satisfaction of married individuals.

Additional Findings

The additional results showed that marital satisfaction of individuals was significantly and positively related to educational level, household income and religiosity. This suggests that as household income, education level, and religiosity increase, marital satisfaction increases and vice versa. The results are in line with previous studies. Evidence in literature has suggested positive associations between religiosity and marital satisfaction among different religious groups, namely, Christianity, Muslims, Jewish, and Mormons (Marks 2005), and between marital well-being and different measures of religiosity (Fincham & Beach, 2010; Mahoney, 2010). Similarly, Low household income or financial hardship was considered a serious danger to marital quality and stability (Litcher & Camalt, 2009). Falconier and Epstein (2010) found that only male economical difficulty affected marital satisfaction of their female spouse. Sorokowski et al. (2017) stated that very few studies have investigated the relation between education and marital satisfaction, and the ones that did presented opposite and inconsistent results. In our personal search of the topic no recent studies have been found relating educational levels to marital satisfaction.

More additional results of our study showed significant negative correlations between age, years of marriage, partner internal stress and partner external stress with marital satisfaction of the individual. This suggests that as age, years or marriage, partner internal stress, and partner external stress increase, marital satisfaction decreases and vice versa. According to Sorokowski et al. (2017) the effects of age on marital satisfaction have not been explicitly investigated in

literature. Therefore one cannot find clear-cut patterns of results to understand the relation between these two variables. However, Sorokowski et al. (2017) stated that age should be looked at in relation to years of marriage and not on its own. As for years of marriage, studies have shown that as number of years increased marital satisfaction decreased (Sorokowski et al., 2017) which is in line with the findings of the present study in the Lebanese sample. The negative relation between one's own marital satisfaction and the partner's intra-dyadic and extra-dyadic stress experience is in line with previous studies found in the literature Randall and Bodenmann (2017) stated that research has shown a strong influence of one partner's experience on the other partner's experience in a romantic relationship. This influence was documented to occur on the behavioral (Aron & Aron, 1996) and emotional level of the partners (Butler & Randall, 2012; Schoebi & Randall, 2015). In the study done by Ledermann et al. (2010) a similar partner effect was found where women's and men's external and internal stress affected their own and their partners' marital quality.

Moreover, a multi-linear regression was conducted with marital satisfaction as the dependent variable and intra-dyadic stress and extra-dyadic stress as independent variable for males and females separately. Results showed that only intra-dyadic stress came out as a negative significant predictor of marital satisfaction in both males and females. This further confirms the proposed hypothesis of mediation in the present study and is in line with previous findings (Falconier et al. 2013). Another multi-linear regression analysis was conducted with marital satisfaction as the dependent variable and age, years of marriage, presence of children, number of children, number of previous marriages, number of children from previous marriages, cohabitation status, religiosity, partner internal stress, partner external stress, intra-dyadic stress, and extra-dyadic stress as independent variables. The regression analysis was done for the male

and female samples separately. Per the results of the analyses, only partner internal stress came out as a significant, negative predictor of marital satisfaction among the female sample. This means that the males' levels of intra-dyadic stress negatively influences the females' marital satisfaction. Higher levels of male intra-dyadic stress predicts lower levels of female marital satisfaction. This result is not in line with previous findings. According to the results of the study by Falconier et al. (2013) a partner effect was found. However, the intra-dyadic stress of the female partner was significantly and negatively correlated with the male partner's marital satisfaction. In other words, the females' intra-dyadic stress had a negative effect on the male's marital satisfaction which is opposite to our findings. One way to explain the results of this study is that men tend to be less supportive and respond more negatively, such as blaming, criticizing, or trying to offer inconsiderate advice, to women's stress (Falconier et al. 2013). Such behavior on the part of the male partner induces feelings of dissatisfaction among the female partners.

Clinical Implications

The findings of the present study first introduced external minor daily stress experienced by couples as a crucial component to relationship functioning among Lebanese couples in the Greater Area of Beirut, and identified a mechanism in which extra-dyadic stress may influence individuals and their relationships. This informs couples and marriage and family therapists in Lebanon of the deleterious impact of extra-dyadic stress on the relationship functioning especially that, as stated earlier, daily minor external stress tends to be ignored and not dealt with because it seems trivial to individuals, but its accumulation over time is harmful to the relationship (Randall & Bodenmann, 2009).

When in therapy, it might be beneficial for professionals in Lebanon to look beyond the presented observable conflict and tension between individuals and assess for signs of stress

spillover into the relationship, and coping skills to handle its effects. Specific assessment of extra-dyadic stress and intra-dyadic stress is a must in order to understand the source of internal conflicts in a relationship. Such assessments could be carried out by professionals using direct questions or self-reports at the beginning of intervention to have a holistic picture of a couple's problems. Therapists should pass on the information they find about effects of external stress on the relationship to increase awareness and understanding on the part of the couples. If and when stress is identified as the target of intervention, therapists could bring on tools to teach the skills that are identified as lacking within the couple. One such example could be teaching the couples how to better communicate their daily events.

Even though external stressors may be constant features of one's daily life and may be difficult to change, it is not impossible for therapists to teach couples how to better cope with them on a daily basis. Therapists could discuss with the partners the ways they are using to deal with external stress and how effective they are, and find together the best strategies to manage external stress and distress in order to protect the relationship.

Prevention programs and attempts that target relationships like pre-marital counseling could include awareness sections about the different types of stress and their effects on the relationship. By shedding light on stress spillover effects on individuals and relationships therapists could elicit more understanding in married individuals to the subtle contributing factors of a dysfunctional relationship. On a more practical level, discussion sessions between the couples on the possible stressors that they are facing or are more likely to face and how to deal with them will equip them with the primary but necessary skills they can bring on in times of stress.

One important aspect that therapists should pay attention to is the interdependence between spouses' stress experiences and marital satisfaction. The study presented that male intradyadic stress has a negative effect on marital satisfaction of women. Thus, when considering stress in a relationship, it is important to be on the lookout for transfer of stress processes and effects from one spouse to the other and bring that into the light. Teaching specific techniques of how to be more supportive when the other partner's stress levels are high could be beneficial to attenuate and decrease stress transfer between the spouses. More specifically, therapists could teach women how to deal with men's internal stress instead of internalizing it and using it as an indication of how they should feel about their marriage.

Future Research Recommendations

First we recommend creating scales that assess chronic minor stressors, internal chronic stressors, and marital satisfaction in Arabic that are more relevant to the Lebanese culture and language and that allow us to reach more Lebanese married individuals.

It would be interesting to develop a tool that could assess external minor chronic stressors that could be unique to the Lebanese culture. Examples of such external stressors could be government electricity cuts, limited electricity power when on generators, and having to pay two bills every month. Another example could be the lack of clean fresh water at home and people being obliged to continually buy drinking water.

Future studies in Lebanon could target more specific mechanisms in which transfer of stress occurs to gain a better understanding of how external stress influences relationship interaction of Lebanese couples. For instance the effect of external stress on communication, self-regulatory resources, quality time with the partner, negative behaviors, etc.

Studies could also target the relation between stress spillover and divorce. As mentioned in the introduction, divorce rates in Lebanon are on the rise. Randall and Bodenmann (2009) suggested that the final outcome of stress spillover is divorce. Whether a link between the two variables exists or not and if it does how much does stress really account for divorce incidents could inform therapists and religious leaders to guide them in their attempts to preserve marriages.

More in depth studies about the impact of males' internal stress on female marital satisfaction among the Lebanese couples are needed to understand why is it females' marital satisfaction that was affected by their male partners' internal stress and not the other way round as other studies have found in different countries (Falconier et. al., 2013). What specific factors in the Lebanese culture and in Lebanese married women could have been contributors to this finding. Also more studies are needed to shed light on the interdependence of the effect of stress in relationships in general.

Limitations of the Study

First the sample being a convenient purposive one consisted of English-speaking Lebanese couples from the Greater Area of Beirut which limited the generalizability of the results. Hence, results are not representative of the whole Lebanese culture.

References

- Allen, E. S., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2010). Hitting home: Relationships between recent deployment, posttraumatic stress symptoms, and marital functioning for army couples. *Journal of Family Psychology, 24*(3), 280-288. doi:10.1037/a0019405
- Aron, E. N., & Aron, A. (1996). Love and expansion of the self: The state of the model. *Personal Relationships, 3*(1), 45-58. doi:10.1111/j.1475-6811.1996.tb00103.x
- Bahr, S. J. (1979). The Effects of Welfare on Marital Stability and Remarriage. *Journal of Marriage and the Family, 41*(3), 553. doi:10.2307/351625
- Bawab , S., & Kazarian , S. S. (2012). Cross-sibling attachment styles and marital satisfaction among married lebanese. *The Arab Journal of Psychiatry, 23*(2), 148-158.
- Bertalanffy, L. (1969). *General system theory: Foundations, development, application*. New York: G. Braziller.
- Bodenmann, G. (1995). A systemic-transactional conceptualization of stress and coping in couples. *Swiss Journal of Psychology, 54*, 34–49.
- Bodenmann, G. (1997). The influence of stress and coping on close relationships: A two-year longitudinal study. *Swiss Journal of Psychology, 56*, 156–164.
- Bodenmann, G. (2000). *Stress und coping bei paaren [Stress and coping in couples]*. Göttingen, Germany: Hogrefe.
- Bodenmann, G. (2005). Dyadic Coping and Its Significance for Marital Functioning. *Couples coping with stress: Emerging perspectives on dyadic coping, 33-49*. doi:10.1037/11031002

- Bodenmann, G., Charvoz, L., Bradbury, T. N., Bertoni, A., Iafrate, R., Giuliani, C., . . . Behling, J. (2007). The role of stress in divorce: A three-nation retrospective study. *Journal of Social and Personal Relationships, 24*, 707–728.
doi:<http://doi.org/10.1177/0265407507081456>
- Bodenmann, G., & Cina, A. (2006). Stress and Coping Among Stable-Satisfied, Stable-Distressed and Separated/Divorced Swiss Couples. *Journal of Divorce & Remarriage, 44*(1-2), 71-89. doi:10.1300/j087v44n01_04
- Bodenmann, G., Ledermann, T., Blattner, D., & Galluzzo, C. (2006). Associations among everyday stress, critical life Events, and sexual problems. *The Journal of Nervous and Mental Disease, 194*(7), 494-501. doi:10.1097/01.nmd.0000228504.15569.b6
- Bodenmann, G., Ledermann, T., & Bradbury, T. N. (2007). Stress, sex, and satisfaction in marriage. *Personal Relationships, 14*, 551–569. doi:<http://doi.org/10.1111/j.1475-6811.2007.00171.x>
- Bodenmann, G., & Perrez, M. (1996). Stress- und argerinduktion bei Paaren: Ein experimenteller Ansatz. [Stress and anger induction in couples]. *Zeitschrift für Differentielle und Diagnostische Psychologie, 16*, 237–250.
- Bolger, N., DeLongis, A., Kessler, R. C., & Wethington, E. (1989). The Contagion of Stress across Multiple Roles. *Journal of Marriage and the Family, 51*(1), 175.
doi:10.2307/352378
- Boss, P. (1987). Family stress. In M.B. Sussman & S.K. Steinmetz (Eds.), *Handbook of marriage and the family* (pp. 695–723). New York: Plenum Press.
- Boss, P. (2002) *Family stress management* (2nd ed.). Newbury Park, CA: Sage.

- Brackett, K., & Brackett, P. (2008). Marital satisfaction. In *Battleground: The Family [2 volumes]: The Family* (p. 383).
- Bradbury, T. N., & Karney, B. R. (2010). *Intimate relationships*. New York, NY: W.W. Norton.
- Breitenstein, C. J., Milek, A., Nussbeck, F. W., Davila, J., & Bodenmann, G. (2017). Stress, dyadic coping, and relationship satisfaction in late adolescent couples. *Journal of Social and Personal Relationships*, 35(5), 770-790. doi:10.1177/0265407517698049
- Buck, A. A., & Neff, L. A. (2012). Stress spillover in early marriage: The role of self-regulatory depletion. *Journal of Family Psychology*, 26(5), 698-708. doi:10.1037/a0029260
- Butler, E. A., & Randall, A. K. (2012). Emotional Coregulation in Close Relationships. *Emotion Review*, 5(2), 202-210. doi:10.1177/1754073912451630
- Campbell, L., Simpson, J. A., Kashy, D. A., & Fletcher, G. J. (2001). Ideal Standards, the Self, and Flexibility of Ideals in Close Relationships. *Personality and Social Psychology Bulletin*, 27(4), 447-462. doi:10.1177/0146167201274006
- Carver, C. S. (2005). Impulse and constraint: Perspectives from personality psychology, convergence with theory in other areas, and potential for integration. *Personality and Social Psychology Review*, 9, 312-333. https://doi.org/10.1207/s15327957pspr0904_2
- Caspi, A., Bolger, N., & Eckenrode, J. (1987). Linking person and context in the daily stress process. *Journal of Personality and Social Psychology*, 52(1), 184-195. doi:10.1037//0022-3514.52.1.184
- Divorce rates in Lebanon on the rise. (2018, June 20). Retrieved from https://monthlymagazine.com/article-desc_4745_

Divorce rate in Lebanon doubles in 10 years. (2018, December 4). Retrieved from <https://www.weeportal-lb.org/news/divorce-rate-lebanon-doubles-10-years>

Dohrenwend, B. S., & Dohrenwend, B. V. (1974). *Stressful life events. Their nature and effects*. New York: Wiley.

Erol, R. Y., & Orth, U. (2013). Actor and partner effects of self-esteem on relationship satisfaction and the mediating role of secure attachment between the partners. *Journal of Research in Personality, 47*(1), 26-35. doi:10.1016/j.jrp.2012.11.003

Falconier, M. K., Nussbeck, F. W., & Bodenmann, G. (2013). Immigration stress and relationship satisfaction in Latino couples: The role of dyadic coping. *Journal of Social and Clinical Psychology, 32*, 813–843. doi:http://doi.org/10.1521/jscp.2013.32.8.813

Farhood, L. F. (1999). Testing a model of family stress and coping based on war and non-war stressors, family resources and coping among Lebanese families. *Archives of Psychiatric Nursing, 13*(4), 192-203. doi:10.1016/s0883-9417(99)80005-3

Farhood, L. F. (2004). The Impact of High and Low Stress on the Health of Lebanese Families. *Research and Theory for Nursing Practice, 18*(2), 197-212. doi:10.1891/rtnp.18.2.197.61288

Farhood, L., Zurayk, H., Chaya, M., Saadeh, F., Meshefedjian, G., & Sidani, T. (1993). The impact of war on the physical and mental health of the family: The Lebanese experience. *Social Science & Medicine, 36*(12), 1555-1567. doi:10.1016/0277-9536(93)90344-4

Ferguson, M. (2011). You cannot leave it at the office: Spillover and crossover of coworker incivility. *Journal of Organizational Behavior, 33*(4), 571-588. doi:10.1002/job.774

Fletcher, G. J., & Kerr, P. S. (2010). Through the eyes of love: Reality and illusion in intimate relationships. *Psychological Bulletin, 136*(4), 627-658. doi:10.1037/a0019792

Fletcher, G. J., & Thomas, G. (2000). Behavior and on-line cognition in marital interaction. *Personal Relationships, 7*(1), 111-130. doi:10.1111/j.1475-6811.2000.tb00007.x

Fincham, F. D., & Beach, S. R. H. (2010). Marriage in the new millennium: A decade in review. *Journal of Marriage and Family, 72*, 630-649.

George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.). Boston: Allyn & Bacon.

Gordon, A. M., & Chen, S. (2016). Do you get where I'm coming from?: Perceived understanding buffers against the negative impact of conflict on relationship satisfaction. *Journal of Personality and Social Psychology, 110*(2), 239-260. doi:10.1037/pspi0000039

Gottman, J. M. (1993). A theory of marital dissolution and stability. *Journal of Family Psychology, 7*(1), 57-75. doi:10.1037/0893-3200.7.1.57

Gottman, J. M. (1994). What predicts divorce? *Hillsdale, NJ: Erlbaum.*

Gump, B. B., & Matthews, K. A. (1999). Do background stressors influence reactivity to and recovery from acute stressors? *Journal of Applied Social Psychology, 29*, 469-494.

- Harper, J. M., Schaalje, B. G., & Sandberg, J. G. (2000). Daily hassles, intimacy, and marital quality in later life marriages. *The American Journal of Family Therapy, 28*, 1–18.
doi:<http://doi.org/10.1080/019261800261770>
- Hill, R. (1949). *Families under stress*. New York: Harper & Brothers.
- Hill, R. (1958). Generic features of families under stress. *Social Casework, 49*, 139–150.
- Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research, 11*, 213–218
- Holzapfel, J., Randall, A. K., Tao, C., & Iida, M. (2018). Intercultural couples' internal stress, relationship satisfaction, and dyadic coping. *Interpersona: An International Journal on Personal Relationships, 12*(2), 145-163. doi:10.5964/ijpr.v12i2.302
- Kamel Abbasi, A. R., Tabatabaei, S. M., Aghamohammadiyan Sharbaf, H., & Karshki, H. (2016). Relationship of Attachment Styles and Emotional Intelligence With Marital Satisfaction. *Iranian Journal of Psychiatry and Behavioral Sciences, 10*(3).
doi:10.17795/ijpbs-2778
- Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, methods, and research. *Psychological Bulletin, 118*(1), 3-34. doi:10.1037//0033-2909.118.1.3
- Karney, B. R., & Bradbury, T. N. (2005). Contextual influences on marriage implications for policy and intervention. *Current Directions in Psychological Science, 14*, 171–174.
doi:<http://doi.org/10.1111/j.0963-7214.2005.00358.x>
- Karney, B. R., Story, L. B., & Bradbury, T. N. (2005). Marriages in context: Interactions between chronic and acute stress among newlyweds. In T. A. Revenson, K. Kayser, & G.

- Bodenmann (Eds.), *Couples coping with stress: Emerging perspectives on dyadic coping* (pp. 13–32). Washington, DC: American Psychological Association.
- Kenny, D. A. (1996). Models of non-independence in dyadic research. *Journal of Social and Personal Relationships, 13*(2). doi:10.1177/0265407596132007
- Kenny, D. A., & Cook, W. (1999). Partner effects in relationship research: Conceptual issues, analytic difficulties, and illustrations. *Personal Relationships, 6*(4). doi:10.1111/j.1475-6811.1999.tb00202.x
- Langer, A., Lawrence, E., & Barry, R. A. (2008). Using a vulnerability–stress–adaptation framework to predict physical aggression trajectories in newlywed marriage. *Journal of Consulting & Clinical Psychology, 76*, 756–768. doi:10.1037/a0013254.
- Lavner, J. A., & Bradbury, T. N. (2010). Patterns of Change in Marital Satisfaction Over the Newlywed Years. *Journal of Marriage and Family, 72*(5), 1171-1187. doi:10.1111/j.1741-3737.2010.00757.x
- Lavner, J. A., Karney, B. R., & Bradbury, T. N. (2016). Does Couples' Communication Predict Marital Satisfaction, or Does Marital Satisfaction Predict Communication? *Journal of Marriage and Family, 78*(3), 680-694. doi:10.1111/jomf.12301
- Lazarus, R. S. (1966). *Psychological stress and the coping process*. New York: MacGraw-Hill.
- Lazarus, R. S., & Launier, R. (1978). Stress-related transactions between person and environment. In L. A. Pervin & M. Lewis (Eds.), *Perspectives in international psychology* (pp. 287–327). New York: Plenum.

- Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York, NY: Springer Publishing Company.
- Ledermann, T., & Bodenmann, G. (2006). Moderator- und Mediatoreffekte bei dyadischen Daten. *Zeitschrift für Sozialpsychologie*, 37(1), 27-40. doi:10.1024/0044-3514.37.1.27
- Ledermann, T., Bodenmann, G., Rudaz, M., & Bradbury, T. N. (2010). Stress, communication, and marital quality in couples. *Family Relations*, 59, 195–206.
doi:http://doi.org/10.1111/j.1741-3729.2010.00595.x
- Leikas, S., Ilmarinen, V., Verkasalo, M., Vartiainen, H., & Lönnqvist, J. (2018). Relationship satisfaction and similarity of personality traits, personal values, and attitudes. *Personality and Individual Differences*, 123, 191-198.
doi:10.1016/j.paid.2017.11.024
- Lichter, D. T., and Carmalt, J. H. (2009). Religion and marital quality among low income couples. *Soc. Sci. Res.* 38, 168–187. doi: 10.1016/j.ssresearch.2008.07.003
- Luchies, L. B., Finkel, E. J., & Fitzsimons, G. M. (2011). The Effects of Self-Regulatory Strength, Content, and Strategies on Close Relationships. *Journal of Personality*, 79(6), 1251-1280. doi:10.1111/j.1467-6494.2010.00701.x
- Marks, L. (2005). How does religion influence marriage? Christian, Jewish, Mormon, and Muslim perspectives. *Marr. Fam. Rev.* 38, 85–111. doi: 10.1300/J002v38n01_07
- Matjasko, J. L., & Feldman, A. F. (2006). Bringing work home: The emotional experiences of mothers and fathers. *Journal of Family Psychology*, 20, 47–55.
- McGonagle, K. A., & Kessler, R. C. (1990). Chronic stress, acute stress, and depressive symptoms. *American Journal of Community Psychology*, 18, 681-706

- Mahoney, A. (2010). Religion in families, 1999–2009: A relational spirituality framework. *Journal of Marriage and Family*, 72, 805–827.
- Merz, C., Meuwly, N., Randall, A. K., & Bodenmann, G. (2014). Engaging in dyadic coping: Buffering the impact of everyday stress on prospective relationship satisfaction. *Journal of Family Science*, 5, 30–37. doi:<http://doi.org/10.1080/19424620.2014.927385>
- Neff, L. A., & Karney, B. (2004). How does context affect intimate relationships? Linking external stress and cognitive processes within marriage. *Personality and Social Psychology Bulletin*, 30, 134–148. doi:<http://doi.org/10.1177/0146167203255984>
- Neff, L. A., & Karney, B. R. (2009). Stress and reactivity to daily relationship experiences: How stress hinders adaptive processes in marriage. *Journal of Personality and Social Psychology*, 97(3), 435–450. doi:10.1037/a0015663
- Randall, A. K., & Bodenmann, G. (2009). The role of stress on close relationships and marital satisfaction. *Clinical Psychology Review*, 29(2), 105–115. doi:10.1016/j.cpr.2008.10.004
- Randall, A. K., & Bodenmann, G. (2017). Stress and its associations with relationship satisfaction. *Current Opinion in Psychology*, 13, 96–106. doi:10.1016/j.copsyc.2016.05.010
- Repetti, R. L., Wang, S., & Saxbe, D. (2009). Bring it all back home: How outside stressors shape families' everyday lives. *Current Directions in Psychological Science*, 18, 106–111. doi:<http://doi.org/10.1111/j.1467-8721.2009.01618.x>
- Repetti, R. L. (1989). Effects of daily workload on subsequent behavior during marital interaction: The roles of social withdrawal and spouse support. *Journal of Personality and Social Psychology*, 57(4), 651–659. doi:10.1037//0022-3514.57.4.651

- Revenson, T. A., Kayser, K., & Bodenmann, G. (2005). Couples coping with stress: Emerging perspectives on dyadic coping. doi:10.1037/11031-000
- Revenson, T. A., & Lepore, S. J. (2012). Stress and coping processes in social context. In T. A. Revenson & J. E. Singer (Eds.), *Handbook of health psychology* (2nd ed., pp. 193–217). New York: Psychology Press.
- Ruvolo, A. P. (1998). Marital well-being and general happiness of newlywed couples: Relationships across time. *Journal of Social and Personal Relationships, 15*(4), 470-489. doi:10.1177/0265407598154002
- Schulz, M. S., Cowan, P. A., Pape Cowan, C., & Brennan, R. T. (2004). Coming Home Upset: Gender, Marital Satisfaction, and the Daily Spillover of Workday Experience Into Couple Interactions. *Journal of Family Psychology, 18*(1), 250-263. doi:10.1037/0893-3200.18.1.250
- Selye, H. (1976). Stress without Distress. *Psychopathology of Human Adaptation, 137-146*. doi:10.1007/978-1-4684-2238-2_9
- Schneewind, K. A., & Gerhard, A. (2002). Relationship Personality, Conflict Resolution, and Marital Satisfaction in the First 5 Years of Marriage. *Family Relations, 51*(1), 63-71. doi:10.1111/j.1741-3729.2002.00063.x
- Schoebi, D., & Randall, A. K. (2015). Emotional Dynamics in Intimate Relationships. *Emotion Review, 7*(4), 342-348. doi:10.1177/1754073915590620
- Sorokowski, P., Randall, A. K., Groyecka, A., Frackowiak, T., Cantarero, K., Hilpert, P., ... & Bettache, K. (2017). Marital satisfaction, sex, age, marriage duration, religion, number of children, economic status, education, and collectivistic values: Data from 33 countries. *Frontiers in psychology, 8*, 1199. doi: 10.3389/fpsyg.2017.01199

- Story, L. B., & Bradbury, T. N. (2004). Understanding marriage and stress: Essential questions and challenges. *Clinical Psychology Review, 23*, 1139–1162.
doi:<http://doi.org/10.1016/j.cpr.2003.10.002>
- Story, L. B., & Repetti, R. (2006). Daily occupational stressors and marital behavior. *Journal of Family Psychology, 20*, 690–700. doi:<http://doi.org/10.1037/0893-3200.20.4.690>
- Tan, K., Jarnecke, A. M., & South, S. C. (2017). Impulsivity, communication, and marital satisfaction in newlywed couples. *Personal Relationships, 24*(2), 423-439.
doi:10.1111/pere.12190
- Totenhagen, C. J., Butler, E. A., & Ridley, C. A. (2011). Daily stress, closeness, and satisfaction in gay and lesbian couples. *Personal Relationships, 19*(2), 219-233. doi:10.1111/j.1475-6811.2011.01349.x
- Watson, J. M., Scarinci, I. C., Klesges, R. C., Slawson, D., & Beech, B. M. (2002). Race, socioeconomic status, and perceived discrimination among healthy women. *Journal of Women's Health & Gender-Based Medicine, 11*, 441-451. This content
- Xu, F., Hilpert, P., Nussbeck, F. W., & Bodenmann, G. (2018). Testing stress and dyadic coping processes in Chinese couples. *International Journal of Stress Management, 25*(1), 84-95.
doi:10.1037/str0000051

Appendix A

Participant Information Letter and Consent Form in English

Participant information letter

Dear Ms./Mr.

I am Rose-Marie Charbetji, a student at Haigazian University from the Department of Social and Behavioral Sciences. I am currently carrying out a research study titled The Relationship Between Extra-dyadic Stress, Intra-dyadic Stress and Marital Satisfaction in Couples of the Greater Area Beirut advised by Dr. Hanine Hout.

You are being asked to take part in this study since you have been married for 1 year or more and are able to read and understand English. Kindly read the below information to decide whether you would like to participate in this research study.

Purpose of the Research Project

This research study aims at understanding the relation between stress experienced by the couple outside their marriage (extra-dyadic stress), stress experienced by the couple within their relationship (intra-dyadic stress) and their marital satisfaction. This study will help us understand the perception of the Lebanese couples of the stress they pass through and how it influences their marital satisfaction. Moreover, the knowledge gained will benefit Couple and Marriage therapists in dealing with couples who are passing through marital distress. This study will contribute towards the partial fulfillment of my academic study requirements at Haigazian University.

What will I be asked to do?

- If you choose to participate in this research study, you will be asked to fill in 3 questionnaires. Your participation will involve completing a survey that entails statements that you will have to rate based on agreement, a demographic form for approximately 15-30 minutes.
- Participation in this project is voluntary. You are free to withdraw anytime without having to give any reason for your withdrawal.

What are my rights?

- Participation in this study is completely voluntary, anonymous and confidential. Your name or any other identifying information will not be asked.
- Data you provide along with data from all participants in the present research will be stored in aggregate in a password protected folder on the personal computer. The data will be analysed and reported in aggregate. Only the principle investigators of this study will have access to the compiled data which will be stored for a period of 10 years post data. During this time, you have the right to inspect the data.

- You have the right to withdraw your consent or discontinue participation at any time for any reason. Your decision to refuse participation or withdraw will not involve any penalty or loss of benefits to which you are entitled. Discontinuing participation in no way affects your relationship with Haigazian University.
- This research study has been reviewed and has received clearance from the Haigazian University ethics committee and Dr. Hanine Hout. If you have any further concerns about your rights as a research participant, please, do not hesitate to contact Dr. Hanine Hout, Haigazian University P.O.Box 11-1348 Mexique Street, Kantari Beirut, Lebanon 01-349230 Ext. 331
Hanine.hout@haigazian.edu.lb

What are the risks and benefits of participation?

- Participation in this study does not involve any physical risk or emotional risk to you beyond the risks of daily life.
- You will receive no direct benefits from participating in this research; however your participation does help researchers better understand the relation between stress experienced by the couple outside their marriage (extra-dyadic stress), stress experienced by the couple within their relationship (intra-dyadic stress) and their marital satisfaction. This study will help us understand the perception of the Lebanese couples of the stress they pass through and how it influences their marital satisfaction. Moreover, the knowledge gained will benefit Couple and Marriage therapists in dealing with couples who are passing through marital distress.

Contact information

If you have any questions or concerns about the research you may contact:

Dr. Hanine Hout, Assistant Professor
Haigazian University
01-349230/1 ext. 331
Hanine.hout@haigazian.edu.lb

Rose Marie Charbetji, MA Student
Haigazian University
rmcharbetji@hotmail.com

Participant consent Form

The Relationship Between Extra-dyadic Stress, Intra-dyadic Stress and Marital Satisfaction in Couples of the Greater Area Beirut

Please read the following statements and place a check mark in the boxes adjacent to them.

- I have volunteered to participate in this research project conducted for purposes of study. My participation is voluntary and does not involve payment of any kind.
- I know that I can choose to withdraw from participation any time without any penalties or consequences whatsoever. I also hold the right to decline to respond to any question(s) that I may feel uncomfortable with.
- My participation may involve an answering a questionnaire.
- I have been assured that the researcher will maintain my identity securely confidential. I have been assured that the information from this interview will be used for the purpose of academic study only.
- I have received the assurance that this research study has been duly reviewed and approved by the Faculty of Social and Behavioural Sciences at Haigazian University.
- I agree that the data gathered be kept in a secure location under the care of the study investigators for a period of a period of 10 years as per the regulations of the Faculty of Social and Behavioural Sciences at Haigazian University.
- I have read, listened and fully understand the explanation given to me. All my questions have been satisfactorily answered.
- I, therefore, choose to voluntarily participate in this research study.
- I have received a copy of this consent form co-signed by the investigator.

Participant consent

Date: _____

Name: _____

Signature: _____

Investigator

Date: _____

Name: _____

Signature: _____

Appendix B

Demographics Questionnaire

1. Your age (in years): _____
2. Gender:
Male: _____ Female: _____
3. Have you and your partner been in a romantic heterosexual relationship together for at least 1 year?
 1. Yes
 2. NoSpecify the institution of marriage:
 - Church
 - Islamic Court
 - Civil Marriage
4. Number of Years Married to Current Spouse: _____
5. Do you and your partner have any children?
 1. Yes
 2. No
6. Number of Children: _____
 - a. If any of them live with you now?
 - yes
 - No
7. Number of Previous Marriages: _____
8. Number of Children from previous marriages: _____
 - a. If any, do they live with you now?
 - Yes
 - No
9. Educational Level:
 - Brevet
 - Baccalaureate
 - Bachelor's Degree
 - Master's Degree
 - Doctoral Degree (PhD or MD)
10. Employment Status:
 - Employed
 - Part-time employed
 - Full-time employed
 - Unemployed
11. Household income
 - Less than 499,999 L.L per month

- 500,000L.L - 749,999 L.L per month
- 750,000L.L – 1,499,999 L.L per month
- 1,500,000 L.L. – 2,999,999 L.L per month
- 3,000,000 L.L. – 7,500,000 L.L per month
- More than 7,500,000 L.L per month

12. What is your Religion: _____

13. What is your Religious Sect: _____

14. On a scale of 1 to 10 how religious are you?

Note: 1: non-religious at all 10: very religious

1 2 3 4 5 6 7 8 9 10

Appendix C

Multidimensional Stress Questionnaire for couples MSD-Q (internal stress)

Answer the following questions with 1: “not at all” , 2: “slightly” , 3: “average” , 4: “very stressful”

	How stressful/straining are the following situations within your relationship? This concerns stress which is connected to your partner.	Burden/stress during the past			
		12 months (chronic)			
1	Difference of opinion with your partner (conflicts, disputations)	1	2	3	4
2	Different attitudes concerning relationship and life (different goals, needs and views)	1	2	3	4
3	Disturbing habits of the partner (e.g. manners, carelessness, inattentiveness, etc.)	1	2	3	4
4	Difficult personality of the partner (e.g. temper, intelligence, reliability, honesty, etc.)	1	2	3	4
5	Insufficient behavior of the partner (poor communication, problem solving, coping with stress, etc.)	1	2	3	4
6	Strong restrictions through the relationship (too little liberty, too much closeness, hemming each other in, etc.)	1	2	3	4
7	Too much distance to the partner (too little closeness, little time for each other, too little exchange and intimacy, no common hobbies and interests, etc.)	1	2	3	4
8	Unsatisfactory distribution of duties and responsibilities (e.g. household, child care, employment, etc.)	1	2	3	4
10	Neglect on the part of the partner (too little attention, affection, sexuality)	1	2	3	4

Appendix D

Multidimensional Stress Questionnaire for couples MSD-Q (internal stress)

Answer the following questions with 1: “not at all” , 2: “slightly” , 3: “average” , 4: “very stressful”

	How stressful/straining are the following situations outside of your relationship? This concerns stress which isn't connected to your partner.	Burden/stress during the past 12 months (chronic)			
		1	2	3	4
1	Job/education (bustle, deadline pressure, high demands, being unchallenged, lacking acknowledgment and career opportunities, etc.)	1	2	3	4
2	Social contacts (conflicts with neighbors, colleagues, acquaintances, social commitments, gossip, tec.)	1	2	3	4
3	Free time (deadline pressure, too many activities, unsatisfactory recreational activities, too little time for yourself, pressure to perform, etc.)	1	2	3	4
4	Children (child care, upbringing, interactions, dependence, restrictions, worries about the children, etc.)	1	2	3	4
5	Family of origin (Separation and dependence, conflicts, maintenance, etc.)	1	2	3	4
6	Living situation (apartment size, noise, site, etc.)	1	2	3	4
7	Finances (debts, lack of money, no raise, etc.)	1	2	3	4
8	Daily hassles (losing or misplacing things, frequent disturbances, waiting lines, traffic jams, delays, etc.)	1	2	3	4

Appendix E

Relationship assessment scale

Answer the following questions ranging from 1: Low to 5: High

1. How well does your partner meet your needs?
 1. poorly
 2. --
 3. Average
 4. --
 5. Extremely well
2. In general, how satisfied are you with your relationship?
 1. Unsatisfied
 2. --
 3. Average
 4. --
 5. Extremely satisfied
3. How good is your relationship compared to most?
 1. poor
 2. --
 3. Average
 4. --
 5. Excellent
4. How often do you wish you hadn't gotten into this relationship?
 1. Never
 2. --
 3. Average
 4. --
 5. Often
5. To what extent has your relationship met your original expectations?
 1. Hardly at all
 2. --
 3. Average
 4. --
 5. Completely
6. How much do you love your partner?
 1. Not much
 2. --
 3. Average
 4. --

5. Very much

7. How many problems are there in your relationship?

1. Very few

2. --

3. Average

4. --

5. Very Many