### Chapter 8 Marital Quality and Well-Being: The Role of Gender, Marital Duration, Social Support and Cultural Context

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#### 1 Introduction

Over recent decades, numerous studies have demonstrated that married individuals enjoy better physical and mental health, have reduced mortality rates and incur less risk for substance and alcohol misuse than single or divorced individuals (Bachman et al. 1997; Voss et al. 1999; Waite and Gallagher 2000; Wickrama et al. 1997). These effects appear to outweigh the selection effect of healthier people being more likely to enter marriage (Daniel 1995; Headey et al. 1991). In addition, the marital bond has been found to be more strongly related to well-being than other social bonds, such as friends or family (Antonucci et al. 2001; Walen and Lachman 2000; Whisman et al. 2000).

However, several studies have underscored not only the positive but also the negative impact of marital relationships. Individuals in long-term unhappy marriages, for example, are more likely to experience distress and mental health difficulties, including depression (Davila et al. 2003; Hawkins and Booth 2005; Whisman 2007). The impact of a poor spousal relationship on psychological well-being is also demonstrated by examining the impact of divorce on mental health. Recent studies indicate that divorced individuals sometimes report higher levels of confidence and life satisfaction than individuals in low-quality marriages (Hawkins and Booth 2005). Although divorce is often accompanied by feelings of isolation, loss of social support sources and financial losses (Amato 2000), Hawkins and Booth (2005) suggest it may actually bring about an increase

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in the level of overall happiness as the individual exits a toxic social environment. Therefore, the quality of marriage, rather than marital status per se, is more important for mental health.

The purpose of this chapter is to present findings of recent research on the relationship between marital quality and well-being. We especially focus on studies which have attempted to clarify the underlying mechanisms of this relationship and have examined the role of moderators and mediators. Given the potential importance of social context, social support and gender in understanding the relationship between well-being and marital quality, we briefly present the results of a study that examined the role of the aforementioned factors in the relationship between marital quality and depressive symptoms in a sample of 95 married couples from Greek urban and rural areas (Pateraki and Roussi 2011).

Both positive and negative indicators of well-being are included in our review, as they may be affected by different moderators. In terms of negative indicators of well-being, we mainly focus on depressive symptoms, as the vast majority of published studies examine this particular aspect of well-being when exploring its relationship with marital quality. Nevertheless, researchers increasingly acknowledge that positive indicators, such as self-esteem, global happiness and life satisfaction, may be of equal importance in understanding the interpersonal context of well-being (Shek 1995) as the lack of depressive symptoms does not necessarily entail positive well-being. Due to the scarcity of studies regarding the positive indicators of well-being, we include studies examining a range of aspects (e.g., life satisfaction, self-esteem, happiness, positive emotions).

For marital quality, we mainly focus on studies which use measures of overall marital quality. As Horwitz and colleagues (Horwitz et al. 1998) propose, a plethora of studies have been conducted indicating the beneficial effects of love, affection, support and intimacy in marriage, which have developed in parallel with studies exploring the detrimental effects of conflict, violence, infidelity, hostility, jealousy and criticism within the marital relationship. However, in most relationships both aspects coexist. Horwitz and colleagues (1998) showed that it is the balance between the positive and negative behaviours in marriage that is more important when examining the association between marital quality and well-being. This balance may be best reflected in global measures of marital quality.

The vast majority of studies included in our review have used self-report measures of marital quality (e.g., Dyadic Adjustment Scale, Marital Adjustment Test) and well-being (e.g., BDI, Rosenberg Self-Esteem Scale), in accordance with the main practices adopted in this research field. When appropriate, methodologies other than self-report are highlighted in the presentation of the extant literature.

#### 2 Marital Quality and Well-Being

Both cross-sectional and longitudinal studies provide empirical support for the relationship between depression and marital quality (Proulx et al. 2007). For example, Whisman and collaborators in a series of cross-sectional studies, using

self-report measures and individual interviews with large community samples, demonstrated the strong positive association between marital dissatisfaction and depression. Specifically, low marital quality was associated with major depressive episodes among women and dysthymia among men, even after controlling for demographic factors and prior history of depression (Whisman 1999, 2007; Whisman et al. 2000).

The results from longitudinal studies are somewhat conflicting. Beach and colleagues (Beach et al. 2003), in a study of 166 couples using self-report questionnaires of marital adjustment and depression, demonstrated that baseline marital quality predicted the level of depressive symptoms a year later. However, Fincham et al. (1997) found that baseline depressive symptoms led to marital dissatisfaction 18 months later for men, whereas the opposite longitudinal link was present for women, in that low marital satisfaction led to later depressive symptoms. Two predominant theoretical models have guided research in this area, the stress generation model and the marital discord model. The stress generation model (Davila et al. 1997; Hammen 1991) proposes that individuals with depressive symptoms engage in several stress-generating behaviours during their social interactions (e.g., dysfunctional problem-solving or negative mood), which increase the tension and distress within their interpersonal environment. This in turn increases their negative mood (Hammen 2005; Rudolph et al. 2000). Alternatively, the marital discord model (Beach et al. 1990) posits that marital discord increases depressive symptoms as it reduces spousal support and accentuates the levels of tension and hostility within an individual's social environment (Beach et al. 2003; O' Mahen et al. 2001). Nevertheless, several researchers suggest that the above models are not necessarily mutually exclusive and that marital quality and depression are characterised by a dynamic, bidirectional relationship, where both factors influence and are being influenced by one another (Bauserman et al. 1995; Kurdek 1998).

In light of results demonstrating that the level of marital satisfaction between two spouses is correlated (Burleson and Denton 1997) and that the changes in psychological well-being over time between two spouses are also correlated (Hoppmann et al. 2011), researchers have recently turned to examining cross-spousal effects in the association between marital quality and mental health by including both partners in their research. Results show that increased depressive symptoms in one spouse are correlated with poor marital quality for the other spouse (Bauserman et al. 1995; Coyne et al. 2002; Sacco et al. 1993). Moreover, prospective studies show that a spouse's own marital satisfaction predicted their partner's level of depressive symptoms a year later (Beach et al. 2003) and is predicted by their partner's depressive symptoms (Whisman et al. 2004). However, the intra-individual correlations are more significant (Whisman et al. 2004).

Less extensive research has explored the relationship between marital quality and positive aspects of well-being. In a longitudinal panel study using four waves of data, Headey and colleagues (1991) demonstrated that among six life domains, including job, friends, living standards and physical health, only marital satisfaction presented a significant causal link with global life satisfaction. Marital happiness has been shown to be positively associated with global happiness (Glenn and

Weaver 1981), life satisfaction (Ng et al. 2009; Shek 1999), self-esteem (Voss et al. 1999) and self-efficacy (Lansford et al. 2005). Furthermore, it has been suggested that marital satisfaction may be more strongly associated with life satisfaction and overall happiness than with mental health symptoms (Gove et al. 1983). This may be the result of the positive aspects of marital relationship, such as instrumental and emotional social support, attachment, love, intimacy, reassurance of worth and feelings of belonging (Horwitz et al. 1998; Lansford et al. 2005).

Finally, researchers have found some evidence suggesting that the association between marital quality and well-being is changing over the decades (e.g., Lee et al. 1991). For example, Proulx et al. (2007) observed that the year of study may moderate this relationship, as the association between marital quality and well-being in longitudinal studies appears to be stronger in more recent studies. Various recent social developments may account for this, including the significant reduction of stigma regarding depressive symptoms, which may result in people indulging in and expressing their low mood more readily (Proulx et al. 2007), and the increasing social emphasis on romantic love, which may make contemporary spouses more prone to disappointment (Proulx et al. 2007). In addition, the massive entrance of women into the workforce, which has increased their contribution to family income, may have changed the dynamics in marital relationship, as well as the objectives of marriage (Williams 2003).

In order to clarify the mechanisms linking marital quality and well-being, researchers have endeavoured to identify variables that moderate or mediate this relationship. In the following sections, we examine the moderating role of gender, age, marital duration and cultural context and the mediating role of social support.

#### 3 Marital Quality and Well-Being: The Role of Gender

Consistent with findings which show that women have higher rates of depression (Kessler 2003), McGrath et al. (1990) observed that in comparison to single women and married men, women in dysfunctional marriages are three times more likely to experience clinical depression. Two recent meta-analytic reviews confirm that the relationship between marital quality and well-being is stronger for women. For example, Proulx and colleagues (2007) in their meta-analytic review of 93 cross-sectional and longitudinal studies, investigating both positive and negative indicators of well-being, found that gender constitutes an important moderator of the association between marital quality and personal well-being, with the correlation being stronger for women; nevertheless, this effect was observed in cross-sectional studies only. Whisman (2001) demonstrated similar results in his meta-analysis of 26 cross-sectional studies about marital satisfaction and depression. It has been suggested that because women are more sensitive to relational problems (Horwitz et al. 1998) and are traditionally more interpersonally oriented, the success of their marriage may be more closely linked to their self-view and, therefore, to their well-being (Beach et al. 2003; Culp and Beach 1998; Davila et al. 2003; Wood 2000).

However, several studies have failed to find gender differences in this relationship (e.g., Whisman and Bruce 1999), and in fact some longitudinal studies have shown the opposite findings (Kurdek 1998). Several explanations have been proposed, some of which focus on methodological issues and others on the changing roles of men and women. For example, Beach and colleagues (2003) suggest that over time gender differences tend to fade out and as people get older, gender roles tend to become less distinctive and men may take equal responsibility for maintaining marital functioning. Consequently, studies that examine gender differences using a longitudinal design are more likely to include established marriages and are therefore less likely to find differences.

An alternative explanation highlights that concurrent studies may also inevitably capture the momentary effects of marital discord rather than just the effects of longterm dissatisfaction within marriage (Proulx et al. 2007). Thus, women, who are more sensitive to the negative affect in relationships (Horwitz et al. 1998), may show a stronger cross-sectional correlation between low marital quality and depressive symptoms (Proulx et al. 2007). Finally, Williams (2003) has suggested that because women tend to internalise emotional problems, a process which is closely linked to depression, and men tend to externalise, studies that focus exclusively on depression as the dependent variable may artificially find that marital quality differentially impacts women's mental health. In her analysis of three-wave data from a nationally representative survey of 2,348 participants, contrary to older findings showing higher well-being risks from marriage for women, Williams (2003) did not find significant gender differences on the benefits or hazards of marital quality on well-being and introduced another explanation for the contradictory findings. She suggested that the shifts in women's role in the marital and work context over the past decades may have brought about shifts in the marital experience for both men and women, and thus, the findings may be a function of the year the study was conducted.

## 4 Marital Quality and Well-Being: The Role of Age and Marital Duration

The moderating role of two interrelated variables – age and marital duration – in the relationship between marriage and well-being has also attracted the interest of researchers. Both marital satisfaction and well-being, when studied separately, vary over the life course (Diener and Suh 1998; Umberson et al. 2005). Specifically, life satisfaction appears to slightly increase with age, although positive affect decreases (Diener and Suh 1998). In contrast, marital satisfaction follows a U-shaped curve, reaching the highest peaks in the very early and late stages of marriage and decreasing during the intermediate stages (Orbuch et al. 1996). More recently, however, it has been argued that the use of cross-sectional designs accounts for this pattern (Glenn 1998) and that in fact marital satisfaction steadily

declines over time (Umberson et al. 2005; VanLaningham et al. 2001). This decline has been mainly attributed to the child- and work-related stresses of midlife (Orbuch et al. 1996). For example, prospective studies (Doss et al. 2009) have confirmed that becoming a parent is associated with a gradual decline in marital satisfaction, a finding attributed to the increased responsibilities faced by both parents. However, this decline seems to be steeper for parents who experience depressive symptoms prior to the birth of the child (Cox et al. 1999).

Proulx and colleagues (2007) in their meta-analysis found that marital duration is a significant moderator of the association between marital quality and well-being and this effect is demonstrated in both cross-sectional and longitudinal studies. Even after controlling for all other possible moderating factors, the concurrent association between marital quality and well-being is stronger for marriages of less than 8 years in comparison to longer marriages. However, longitudinal data suggest the opposite conclusion that the relationship is stronger for long-term marriages (greater than 8 years) (Proulx et al. 2007). Using a prospective design, Whisman (2007), in a study of 2,213 married adults, also demonstrated that the association between marital satisfaction and depression increases in magnitude over the life course. One explanation for the findings from longitudinal and prospective studies is that it may take longer for partners to get closer, become more attuned to each other and drop their levels of independence and differentiation of self to allow for the processes that link marital quality and well-being to be activated. This explanation is also supported by studies examining cross-spousal effects. For example, Davila and colleagues (1997) have failed to find cross-spousal effects in the association between marital quality and wellbeing in a sample of 154 newlyweds, using individual interviews, self-reported questionnaires and observations of interactions between spouses. However, cross-spousal effects have been evidenced in studies of couples in established marriages (Beach et al. 2003).

Studies that have examined age as the moderating variable show that for older couples negative and positive marital interactions, and possibly the affect that they are accompanied with, are more strongly associated with marital satisfaction in comparison to younger couples (Henry et al. 2007). However, of note is that older people generally report higher quality marital and social relationships, due to their improved ability to regulate their emotions and a tendency to terminate dysfunctional or superficial relations earlier in life (Carstensen and Mikels 2005).

## 5 Marital Quality and Well-Being: The Role of Social Support and the Cultural Context

A wealth of studies show that social support, either from the spouse or from extended family and friends, is negatively correlated with depression (Moos et al. 1998; Pugliesy and Shook 1998). In fact, it has been suggested that the benefits of

marriage may be the result of the social support exchanges between spouses (Birbitt and Antonucci 2007). Spousal support has been associated with marital satisfaction, fewer depressive symptoms, less perceived stress and less intense negative physiological responses, including cortisol levels and blood pressure, following a conflict (Dehle et al. 2001; Heffner et al. 2004). Perceived social support has been distinguished from actual social support responses in research, as actual support may undermine the individual's self-efficacy and/or encourage ruminative responses to negative events (Bolger et al. 2000). Interestingly, spousal support in positive events is more strongly and consistently related with marital satisfaction, than support in negative events, and is linked to factors promoting positive mental health, such as feelings of worth (Gable et al. 2006).

The lack of spousal support has been found to mediate the relationship between marital satisfaction and depression, particularly so for women (Davila et al. 1997) who tend to express greater subjective need for support in the marital context in comparison to men (Edwards et al. 1998). The moderating role of support from extended family and friends has also been examined. It has been suggested that friendships cannot buffer the negative effects of a poor and unsupportive marital relationship (Birbitt and Antonucci 2007). Nevertheless, Edwards and colleagues (1998), using semi-structured interviews with almost 100 couples, have shown that women, who receive high levels of social support from other sources, are less likely to develop depression when in distressed marriages. This is consistent with the traditional view of men tending to rely primarily on their spouses for intimacy and support, whereas women tend to refer to their wider social network in order to fulfil these needs (Culp and Beach 1998; Gurung et al. 2003). Consequently, it could be assumed that marital discord, which deprives men from meeting these needs, may posit a stronger risk factor for their well-being.

Researchers have also considered the importance of the broader cultural context within which marriage takes place in order to understand the relationship between marital quality and well-being. Cultural differences have been found in terms of the perception of self, with Western cultures being described as individualistic ("a social pattern that consists of loosely linked individuals who view themselves as independent of collectives") and East Asians being described as collectivist ("a social pattern consisting of closely linked individuals who see themselves as parts of one or more collectives") (Triandis 1995, p. 2). Dion and Dion (1993) proposed that features of individualistic societies, such as the USA, may prevent couples from developing intimacy and maintaining proximity in their marriage due to their increased emphasis on independence and differentiation. On the contrary, collectivistic societies, such as Japan, are more likely to promote close relationships and interdependency (Oyserman and Lee 2008). Individuals who adopt a less individualistic view of the self, even within individualistic societies, may report greater marital satisfaction (Antill 1983) and be more likely to receive support that will act as a buffer to contextual stress factors (Triandis et al. 1988). These individuals may also exhibit a stronger relationship between marital quality and well-being. Lansford and collaborators (2005) conducted two studies with Japanese and American couples, in their effort to explore the moderating role of

cultural factors in the relationship between marital quality and well-being. In the first study, they administered self-report measures using structured interviews, and in the second study, they conducted focus groups, followed by qualitative content analysis of the data, but did not find clear evidence to support their hypothesis.

#### 6 A Cross-Sectional Study with Greek Married Couples

Although differences in the levels of collectivism or individualism are usually assumed to exist between cultures, significant variation within a country has also been observed (Kashima et al. 2004). For example, Kashima and colleagues (2004) found that residents in metropolitan areas de-emphasised the collective self in comparison to residents in regional cities, in both Australia and Japan. It may thus be concluded that issues related to how coping varies from an individualistic to a collectivist context can also be studied within cultures. If we consider collectivism and individualism as the extreme poles of a continuum, Greece has been proposed to be in the middle (Oyserman et al. 2002). However, due to the rapid large-scale internal migration to the urban cities, rural areas of Greece differ significantly from large urban centres, with the former still emphasising the wider family network and collectivistic values and the latter increasingly adopting individualistic values (Georgas 1989, 1991).

As Greek culture is different in some respects from the more individualistic Western cultures, we conducted a cross-sectional study with Greek married couples in a rural and an urban setting in order to explore the relationship between marital satisfaction and depressive symptoms. We were interested in answering the following questions:

- 1. Is marital satisfaction negatively correlated with depressive symptoms both intra-individually (Hypothesis 1a) and between partners (cross-spousal effects), with the depressive symptoms of one partner being negatively correlated with the marital satisfaction of the other partner (Hypothesis 1b)?
- 2. Is perceived spousal support negatively correlated with depressive symptoms for each partner separately (Hypothesis 2a)? Is spousal support mediating the relationship between marital satisfaction and depressive symptoms (Hypothesis 2b)?
- 3. Is perceived social support from family and close friends negatively correlated with depressive symptoms (Hypothesis 3a)? Is social support from family and friends moderating the relationship between marital satisfaction and depressive symptoms (Hypothesis 3b)?
- 4. Is area of residence moderating the relationship between marital satisfaction and depressive symptoms (Hypothesis 4)?
- 5. Is gender moderating the relationship between marital satisfaction and depressive symptoms (Hypothesis 5)?
- 6. Is marital duration moderating the relationship between marital satisfaction and depressive symptoms (Hypothesis 6)?

#### 7 Method

#### 7.1 Participants

Ninety-five married couples comprised the study participants. A convenience sampling procedure was adopted, but every effort was made to secure a wide range of participants in terms of age, socio-economic and educational status. Each spouse completed separately a battery of questionnaires, which they were asked to seal in an envelope and enclose together with their partner's questionnaires in another envelope in order to return them to the researchers. Two hundred and seventy-six questionnaires were sent to 138 couples, from which 78 were not returned and eight were completed by only one spouse and thus were not used in the analysis. All participants were Greek. About 49.5% (47 couples) lived in the two largest Greek cities (Athens or Thessaloniki), and 50.5% (48 couples) lived in rural areas (small towns and villages with a population from 1,500 to 50,000 residents). The mean age for men was 46.5 years and for women 42.2 years. About 86% of the couples had up to four children. Marital duration ranged between 1 and 47 years, with a mean of 17 years. About 64% of the participants living in urban areas held university degrees, as opposed to about 45% of the participants in rural areas.

#### 7.2 Instruments

The Beck Depression Inventory-II (BDI-II; Beck et al. 1996), as adapted in Greek by Kosmidou and Roussi (2002), was used to measure depressive symptoms. The BDI-II is a self-report instrument, comprising 21 items, for example, "(0) I do not feel sad, (1) I feel sad much of the time, (2) I am sad all the time, (3) I am so sad or unhappy that I can't stand it". The overall score measures the severity of depressive symptoms experienced. In the present study, the scale demonstrated good internal reliability ( $\alpha = .83$ ). Principal component analysis with promax rotation on Greek samples has yielded two factors, as with the US samples. The two factors can be described as an affective/somatic factor and a cognitive factor (Stalikas et al. 2011). The two factors reflect the variety of symptoms included in the DSM-IV description of depression. Given the high internal consistency of the scale, an overall score was used.

The Dyadic Adjustment Scale (DAS; Spanier 1976) was used to measure marital satisfaction. The DAS consists of 32 questions exploring different aspects of the quality of marital relationship. Example items include "How often do you discuss or have you considered divorce, separation, or terminating the relationship?" The overall score is an indicator of global marital satisfaction. In the present study, the scale demonstrated good internal reliability ( $\alpha = .91$ ). Principal component analysis with oblimin rotation yielded eight factors, the first of which explained

27.38% of variance. These factors were conceptually related to those reported in the international literature (Spanier 1976). Because of the theoretical and empirical relatedness of the factors to marital satisfaction (Spanier 1976) and the high internal consistency of the scale, we used an overall index of marital satisfaction.

In order to assess perceived spousal support and social support from important family members or friends, the *Multi-Dimensional Support Scale* (MDSS; Winefield et al. 1992) was used. The MDSS comprises 12 items, six of which examine the level of emotional, informational and tangible support available and six measure the adequacy of each available type of support. Example items include "How often did they (i.e., family members and friends or spouse) really listen to you when you talked about your concerns or problems?" Principal component analysis yielded one factor ( $\alpha = .91$ ), which explained 54.33% of variance.

#### 8 Results

#### 8.1 Preliminary Analyses

First, we examined the relationship between depressive symptoms and demographic variables. We found that women living in rural areas reported more depressive symptoms than women in urban areas, t(86.4) = 4.26, p < .05; M = 12.65, SD = 7.10 and M = 7.19, SD = 5.20, respectively, and that women with higher education reported fewer depressive symptoms than women with lower education, r = -.22, p < .05. Finally, among women living in rural areas, the longer the duration of marriage, the higher the depressive symptoms, r = .43, p < .01. Because level of education and area of residence were highly interrelated,  $\chi^2(1, N = 190) = 25.89$ , p < .001, area of residence was taken into account in subsequent analyses in order to minimise multicollinearity effects. Similarly, marital duration and age were highly intercorrelated, r = .93, p < .01, and thus, marital duration was the variable included in subsequent analyses.

## 8.2 The Relationship Between Marital Quality, Social Support and Depressive Symptoms: Bivariate Analyses

Table 8.1 presents the means and standard deviations of the study variables by gender and area of residence, the correlation coefficients between the study variables by gender and area of residence as well as the within spouses intercorrelations. As expected, marital satisfaction between the members of a couple was highly intercorrelated, r = .68, p < .01, but depressive symptoms were not. In addition, marital satisfaction (Hypothesis 1a), females: r = -.61, p < .01, males: -.59, p < .01, and spousal support (Hypothesis 2a), females: r = -.41,

Table 8.1 Means, standard deviations, and correlations between the study variables

	Study variables				M (SD)	
	(Urban/rural areas)	as)			$(Urban/rural\ areas)$	
		Marital	Spousal	Support from		
Study variables Depression	Depression	satisfaction	support	others	Men	Women
Depression	.24/.16	44**/72**19/49**	19/49**	16/26	8.87 (5.54)/9.21 (6.32)	7.19 (5.24)/12.65 (7.11)
Marital	62**/57**	.72**/.65**	.64**/.79**	.28/.40**	117.49 (17.18)/115.06 (17.63)	117.49 (17.18)/115.06 (17.63) 119.65 (17.01)/112.39 (15.45)
satisfaction						
Spousal support	pousal support57**/61**	.83**/.51**	.43**/.44**	.45**/.43**	18.98 (3.55)/18.30 (4.02)	19.06 (4.47)/17.02 (4.18)
Support from	30*/53**	.25/.34**	. 39**/.50**	.54**/.48**	16.38 (3.77)/16.96 (4.04)	16.68 (4.04)/16.71 (4.00)
others						

Note: The correlations between partners are presented along the diagonal; the correlations for women are presented above the diagonal and the correlations for men below the diagonal \*p < .05; \*\*p < .01

p < .01, males: -.61, p < .01, were negatively correlated with depressive symptoms, although the latter did not hold for women in urban areas, r = -.19, p > .05. In terms of cross-spousal effects (Hypothesis 1b), in urban areas the depressive symptoms of men were negatively correlated to their partner's marital satisfaction, r = -.43, p < .01, whereas in rural areas the depressive symptoms of women were negatively correlated to their partner's marital satisfaction, r = -.48, p < .01. Finally, in partial support of our predictions, social support from others, that is, family and friends, was negatively related to depressive symptoms for men only (Hypothesis 3a), r = -.43, p < .01.

# 8.3 The Relationship Between Marital Quality, Social Support and Depressive Symptoms: The Actor-Partner Interdependence Model

It has been proposed that outcomes for individuals involved in interdependent relationships do not depend only on their own characteristics and experiences but also on their partners' (Kashy and Kenny 2000; Kenny et al. 2006). For example, marital satisfaction does not only depend on personal perceptions (actor) of spousal support but also on how the partner perceives the support provided by the actor. The Actor-Partner Interdependence Model (APIM) takes into account the mutual influence spouses exert on each other and uses a multilevel analytic approach, which allows the researcher to examine the variable relationships using concurrently individual and dyadic data (Kenny et al. 2006).

In order to test the moderating role of gender, marital duration, social support provided by friends and relatives and cultural context (Hypotheses 3b, 4, 5 and 6) and the mediating role of spousal support (Hypothesis 2b), we ran two models using the SPSS 17.0 mixed models module, with depressive symptoms as the dependent variable. In the first model, we included all variables that reached a .01 significance level. In addition, we included all two-way interactions as well as the three-way interaction between gender, marital satisfaction and perceived support from others, in an effort to explore whether support from others moderates the relationship between marital satisfaction and depressive symptoms, for males and females separately (Hypotheses 3b and 4). The least significant interactions were deleted one step at a time so that the final model included all main effects and the statistically significant interactions (Table 8.2).

We found that couples who live in rural areas experience more depressive symptoms, b = -4.15, t(90) = -4.21, p < .01, than those living in urban areas, particularly so for women, b = 3.57, t(87) = 2.67, p < .01. Additionally, spouses who feel satisfied by their marriage, b = -3.08, t(140) = -5.62, p < .01, and spouses who believe that they are supported by their partner, b = -1.54, t(166) = -2.58, p < .05, experience fewer symptoms. The latter was stronger for couples living in rural areas, b = 1.74, t(145) = 2.53, p < .05, and for couples

Table 8.2 Multilevel regression model predicting depressive symptoms

Predictor variable	b	SE	df	t
Intercept	11.63	.78	107	14.86**
Area of residence <sup>a</sup>	-4.15	.98	90	-4.21**
Duration of marriage	.67	.34	86	1.94
Actor variables				
Gender <sup>b</sup>	-2.46	1.01	93	-2.43*
Marital satisfaction	-3.08	.55	140	-5.62**
Perceived spousal support	-1.54	.60	166	-2.58*
Perceived support from friends	.79	.53	96	1.49
Partner variables				
Marital satisfaction	.62	.56	143	1.11
Perceived spousal support	.82	.49	156	1.66
Perceived support from friends	-1.31	.42	140	-3.15**
Interaction terms <sup>c</sup>				
Gender $\times$ area of residence	3.57	1.34	87	2.67**
Gender × perceived support from friends (actor)	-1.99	.67	149	-2.98**
Area of residence × perceived spousal support (actor)	1.74	.69	145	2.53*
Marital satisfaction (actor) × marital satisfaction (partner)	1.35	.53	142	2.56*
Marital satisfaction (actor) × perceived spousal support (partner)	-1.77	.53	166	-3.35**
Perceived spousal support (actor) × perceived support from	-1.20	.52	168	-2.31*
friends (actor)				
Gender $\times$ marital satisfaction (actor) $\times$ perceived support from friends (actor)	1.95	.63	111	3.10**

 $<sup>\</sup>overline{{}^{a}0} = \text{rural}; 1 = \text{urban}$ 

who believe that they are supported by others, b = -1.20, t(168) = -2.31, p < .05. Fewer depressive symptoms experienced by a spouse were also associated with the partner's perception that he/she is supported by others, b = -1.31, t(140) = -3.15, p < .01. In addition, the relationship between a spouse's depressive symptoms and his/her satisfaction from marriage was moderated by the partner's satisfaction from marriage, in that it was stronger when the partner's satisfaction was lower, b = 1.35, t(142) = 2.56, p < .05, and by the partner's perceived spousal support, in that it was stronger when the partner believed he/she was not supported, b = -1.77, t(166) = -3.35, p < .01.

Finally, the three-way interaction between gender, satisfaction from marriage and support from others was also significant, b = 1.95, t(111) = 3.10, p < .01. In support of Hypothesis 3b, the negative relationship between marital satisfaction and depressive symptoms was stronger for men when their level of social support from others was low, whereas this relationship was weaker for women when the level of support from others was low.

 $<sup>^{</sup>b}0 = \text{women}; 1 = \text{men}$ 

<sup>&</sup>lt;sup>c</sup>Only statistically significant interactions are presented

<sup>\*</sup>p < .05; \*\*p < .01

In the second model, we examined whether spousal support (Hypothesis 2b) mediates the relationship between marital satisfaction and depressive symptoms. Following the procedure recommended by Baron and Kenny (1986), we confirmed that the three variables are interrelated, and then we used the 17.0 SPSS mixed models module to test, using two separate models, whether each independent variable predicts depressive symptoms, after taking into account gender, marital duration and area of residence. We also confirmed that marital satisfaction predicts spousal support. In the final model, we included all variables, gender, marital duration, area of residence, spousal support and marital satisfaction. Contrary to our expectations, spousal support was no longer a predictor, b = -0.08, t(180) = -1.14, p > .05.

#### 9 Discussion

The purpose of the present study was to examine the relationship between marital satisfaction and depressive symptoms and to explore the moderating role of gender, marital duration, social support and cultural context. The findings only partially supported the research hypotheses. Specifically, consistent with previous findings (Proulx et al. 2007; Whisman 2007), intra-individual correlations showed that marital satisfaction is negatively correlated with depressive symptoms. Moreover, inter-individual correlations confirmed the presence of cross-spousal effects, in that marital satisfaction was associated not only with one's own depressive symptoms but also with their partner's (Beach et al. 2003; Coyne et al. 2002; Sacco et al. 1993). Spousal support was negatively related to depressive symptoms experienced by men, regardless of area of residence. This effect was observed only for women living in rural areas. In addition, women living in rural areas differed from the remaining participants, in that the longer the duration of their marriage, the higher their depressive symptoms.

We conducted a second set of analyses, wherein we included all variables, using both individual and dyadic data. These analyses showed a more complex pattern of relationships and highlight the mutual influence partners exert on one another (Beach et al. 2003). Specifically, we found that the lower the personal marital satisfaction, the higher the depressive symptoms, particularly when the partner's marital satisfaction is low or when the partner perceives the spousal support as low. One explanation for this may be that the partner's low marital satisfaction and low perceived spousal support amplify the impact of low personal marital satisfaction on depression, although a prospective design is necessary to support such a causal explanation.

Contrary to our hypotheses, marital duration did not moderate the relationship between marital satisfaction and depressive symptoms, and spousal support did not mediate the relationship between depressive symptoms and marital satisfaction in our study. In fact, in the final analysis using the APIM model, spousal support and marital satisfaction appeared to make independent contributions as predictors. Furthermore, the relationship between spousal support and depressive symptoms was moderated by perceived support from others and was stronger for couples living in rural areas than for couples living in urban areas. The latter finding is consistent with what we expected, given the presumed differences in levels of collectivism between the two areas. Studies have shown that in more collectivistic contexts, as we assume Greek rural areas to be (Georgas 1989, 1991), perceived social support may have more beneficial effects (Goodwin and Plaza 2000; Triandis et al. 1988).

The present study was a preliminary effort to explore the role of the area of residence in the relationship among marital satisfaction, social support and depressive symptoms. However, the absence of differences between the two areas, other than the one mentioned above, may reflect the significance of marital relationship and social support for well-being, regardless of the influence of cultural characteristics. This may be the reason why Lansford and collaborators (2005) did not find clear evidence to support the hypothesis that culture moderates the relationship between marital satisfaction and well-being. Nonetheless, in our study the absence of differences between the two areas may also reflect the gradual homogenisation of the Greek culture regarding collectivistic values. The studies that reported differences in the levels of collectivism between rural and urban areas were conducted approximately 20 years earlier (Georgas 1989, 1991), and Greece is dynamically adopting more individualistic values (Georgas et al. 2006). Because we did not include measures of collectivism in our study, we cannot be certain that these differences are still present.

Although it has been suggested that friendships cannot buffer the negative effects of a poor and unsupportive marital relationship (Birbitt and Antonucci 2007), in our study the relationship between marital satisfaction and depressive symptoms was moderated by the level of social support from others, and this moderating effect was a function of gender. More specifically, for males, the lower the marital satisfaction, the higher the depressive symptoms, particularly when social support from others is low. Although this is a cross-sectional study and causality is not tested, the findings suggest that for men, social support from others attenuates the relationship between marital dissatisfaction and depressive symptoms. Men may turn to their wider social network for support, when their marriage does not fulfil these needs, and may benefit from doing so. These findings are inconsistent with the traditional view of men mainly relying on their wives for support (Culp and Beach 1998; Gurung et al. 2003) and with previous studies that confirm the reverse moderating effects: that it is only women who benefit from external sources of support when in a dysfunctional marriage, whereas men who are supported outside the marriage have a higher likelihood of depression (Edwards et al. 1998).

In contrast, in our study we found that for women, the lower the marital satisfaction, the higher the depressive symptoms, particularly when social support from others is high. Previous studies suggest that women, compared to men, tend to engage excessively in negative thinking (Nolen-Hoeksema et al. 1999), especially with regard to interpersonal problems (Mezulis et al. 2002) and during their social contacts (Rose et al. 2007). This gender difference has been used to explain the

higher prevalence of depression in women, as rumination appears to be a strong predicting factor of the onset and maintenance of depression (McBride and Bagby 2006; Rose et al. 2007). Thus, it could be hypothesised that poor marital satisfaction for women may stimulate ruminative processes during social contacts with family and friends, which may further strengthen the relationship between depressive symptoms and marital dissatisfaction. Although contradictory to international literature, similar findings have been reported before in Greek culture. For example, some studies have failed to find a link between social support and emotional well-being in new mothers in Greece and Cyprus (Moraitou et al. 2010; Thorpe et al. 1992), while other studies emphasise that social support exchanges in Greece may not have the same buffering effect as commonly reported in international research (Kafetsios 2006). Nevertheless, the present study supports outcomes which show that in societies with traditionally defined gender roles, such as Greece (Hofstede 2001), there are significant differences in the way men and women experience social support (Kafetsios 2007; Stevens and Westerhof 2006).

Our study has several limitations, including the cross-sectional study design, the non-probability sampling procedure and the small sample size. Furthermore, we used a general population sample. Several researchers in the field have suggested that results from community populations may not generalise to clinical populations and that there are significant differences between major depressive episodes and depressive symptomatology (Coyne 1994; Whisman and Bruce 1999). In addition, we did not measure levels of collectivism and individualism, and differences between the two areas were assumed based on previous findings (Georgas 1989, 1991). Finally, of note are recent findings showing that the valence of the measure of marital quality being used in the research (e.g., discord vs. happiness) may moderate the results, with the relationship between marital quality and well-being being stronger in longitudinal studies which measure the negative aspects of marital relationship (Proulx et al. 2007). Thus, some scholars criticise global measures of marital quality and propose that the positive and negative aspects of relationships may be two distinct dimensions that differentially influence wellbeing, merit separate attention and should not be treated as the opposite extremes of a continuum (Henry et al. 2007; Lansford et al. 2005; Williams 2003). Further studies that address the above limitations need to be conducted in order to better understand the marital and social context of well-being in the Greek population.

In conclusion, this preliminary study confirms the strong relationship between marital satisfaction and depressive symptoms, but also suggests that this relationship is complex. For example, in addition to gender and spousal support, we found indications that social context, social support from others and mutual influence partners exert on one another are factors that may play an important role in clarifying the mechanisms that link marital quality and well-being, but are rarely studied. However, this complexity may in part reflect the specific characteristics of the Greek culture, particularly regarding the role of social support in moderating the relationship between marital quality and depressive symptoms. The present findings underscore the significance of social context and interpersonal relationships, especially marriage, when studying psychological well-being and the importance of taking them into account in the design of clinical interventions.

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