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Running Head: SPOUSAL HEALTH AND MARITAL SATISFACTION

Living With a Spouse With Health Problems: Associations With Marital Satisfaction

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Spring 2011

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Abstract

Associations between a variety of mental and physical health problems in a spouse and a person's own marital satisfaction were evaluated in a United States population-based survey of married individuals ($n = 2,213$). Results from analyses of covariance indicated that compared to people whose spouse did not have the corresponding health problem, marital satisfaction was lower for people with a spouse suffering from (a) serious heart problems, (b) depression, and (c) anxiety; there was no significant association between marital satisfaction and spouse's cancer, other chronic physical illness, or alcohol and drug problems. Regression analyses were conducted to evaluate the specificity of the association between each health problem and marital satisfaction, controlling for the other health problems. Results indicated that spouse's serious heart problem was the only health problem that was uniquely associated with participant's marital satisfaction. These results suggest that spousal health, particularly with respect to heart problems, may be important for couple functioning, which may have implications for the practice of couple therapy.

Mental and physical health problems of a spouse can be difficult and upsetting for both patient and partner (Manne et al., 2007). As a couple learns to cope with the consequences of illness, the relationship changes and the sick individual is likely to turn to his or her spouse for emotional and tangible support (Primomo, Yates & Woods, 1992). The support provided varies from couple to couple, and different coping mechanisms are used to come to terms with illness. As the relationship changes, so do the feelings associated with it. Although some couples are able to stay just as satisfied as before, others struggle to make the necessary adjustments. Could the presence of illness in a spouse contribute to his or her partner's decreased marital satisfaction? Or alternatively, could the lack of satisfaction in a marriage contribute to poorer physical or mental health? More specifically, do different types of illnesses have differing strengths of association with marital satisfaction?

Psychiatric Illness

There is a sizable body of literature showing an association between psychiatric illnesses and marital dissatisfaction (Whisman, 2007). This association is stronger between psychiatric disorders and relationship quality with a spouse as compared to relationship quality with relatives or friends (Whisman, Sheldon, & Goering, 2000). More specifically, the association between depression and marital functioning has been widely studied. Previous research suggests that partners of depressed individuals are themselves at risk for psychological distress due to the burdens associated with caring for someone with depression; burdens such as the depressed individual's feelings of worthlessness, the possibility of re-occurrence, the emotional strain on the spouse, the depressed individual's endless worrying, and the depressed individual's lack of energy

(Benazon & Coyne, 2000). As a result, marriages of depressed persons are consistently characterized by negativity and conflict (Beach, Whisman, & O'Leary, 1994). Depression has been found to increase the likelihood of divorce during the following year by 70% (Bruce, 1998). Additionally, research shows that the spouses of depressed persons have negative attitudes toward their depressed partners (Hooley, 1986; Vaughn & Leff, 1976). In addition to studying the way depression is associated with marital functioning, the way marital functioning is associated with depression has been examined as well. Troubled marriages are associated with increased distress, and both syndromal depression and depressive symptoms are strongly associated with marital conflict (Beach, Fincham, & Katz, 1998; Fincham & Beach, 1999). In a population-based sample of married individuals, baseline marital distress was associated with an increased risk of major depression at 1-year follow-up, and this association remained significant when controlling for demographic variables and prior history of depression (Whisman & Bruce, 1999).

The association between marital satisfaction and anxiety has not been studied as extensively as the association with depression. However, research shows that the most common topic of worry for a person is family and interpersonal issues (Roemer, Molina, & Borkovec, 1997), that general anxiety disorder is associated with impairment in interpersonal functioning, including marital functioning (Eng & Heimberg, 2006; Whisman, 2007), and that marital dissatisfaction is associated with poorer outcomes to treatments of anxiety (Durham, Allan, & Hackett, 1997).

Research on the association between relationship functioning and other psychiatric illnesses such as dementia, mental retardation, schizophrenia or psychosis,

bipolar disorder, and other serious chronic mental problems, is limited. Although couple-based interventions have been developed to treat many of these problems (see Snyder and Whisman, 2003), the association between these disorders and relationship functioning is largely unknown.

Alcohol and Drug Abuse

Many studies have indicated that marital dissatisfaction can be both a precursor and a consequence of alcohol and drug abuse (O'Farrell, Hooley, Fals-Stewart, & Cutter, 1998). Relationships that are supportive have shown to decrease maladaptive coping behaviors and increase healthy behaviors (Lewis, Rook, & Schwarzer, 1994). For example, in a longitudinal study of married men, interactions with the spouse that were positive significantly reduced the probability of risky health habits, including alcohol and drug abuse (Wickrama, Conger, & Lorenz, 1995). Additionally, in a population-based sample of married individuals, baseline marital distress was associated with an increased risk of alcohol use disorders at 1-year follow-up, and this association remained significant when controlling for demographic variables and prior history of alcohol use disorder (Whisman, Uebelacker, & Bruce, 2006).

Other studies have shown that alcohol and drug abuse can contribute to marital dissatisfaction. For example, in a longitudinal study, drinking abuse was shown to significantly increase the frequency of serious marital conflicts over the course of three years (Horwitz & White, 1991). In clinical and community samples some evidence has been shown that alcohol use predicts consequent marital dissatisfaction (Zweben, 1986). Additionally, alcohol and drug abuse has been listed as one of the most prominent reasons for the dissolution of a marriage (Amato & Previti, 2003).

Chronic Physical Illness

Current research about chronic physical illness and other serious illness is limited to the study of the negative effects associated with the health problem. Serious illness, like cancer or other chronic physical illness, is often accompanied by a multitude of other problems, such as physical deterioration and pain, fear of recurrence and of death, and side effects from treatments (Massie & Holland, 1989). Given the intensity, duration, and interdependence of a marital relationship (Coyne & Fiske, 1992), ill individuals are likely to depend primarily on their spouses for assistance and support (Manne, Alfieri, Taylor, & Dougherty, 1999). Previous studies have shown, however, that the level of physical impairment resulting from the chronic physical illness may influence the experience and magnitude of negative interactions with a partner (Finch & Zautra, 1992; Manne & Zautra, 1989; Revenson & Majerovitz, 1990). The greater the disability, the more assistance is required from the spouse, and the more likely a partner is to feel resentment about the personal sacrifices involved with providing intensive care (Williamson & Schulz, 1990). In addition to sacrifices made, research shows that serious illness can also produce noticeable stress for the spouse (Keitel et al., 1990; Tilden, & Weinert, 1987), and that some marriages are at a serious risk as a result (Manne et al., 1999). Nonetheless, many married couples become even closer in time of physical illness and turn to each other for emotional support in dealing with worries and concerns (Pistrang & Barker, 1992; Primomo, Yates, & Woods, 1992).

Other studies have examined the effects that marital functioning may have on physical health. Marital satisfaction has been shown to improve physical functioning including survival rates after heart failure (Coyne et al., 2001) and kidney disease

(Kimmel et al., 2000), and to improve cardiovascular, endocrine, and immune system functioning (Kielcolt-Glaser & Newton, 2001; Uchino, Cacciopo, & Kielcolt-Glaser, 1996). Research has also shown that cytokine production was lower at wound sites and wounds healed significantly slower after marital conflicts than during supportive positive marital interactions (Kielcolt-Glaser et al., 2005). Low marital quality has been associated with reduced immune system functioning, deteriorated physical health, and even dental problems (Kielcolt-Glaser et al., 2005; Marcenes & Sheiham, 1996). Overall, men and women who report greater marital satisfaction also report better health, fewer illness symptoms, and better sleep patterns (Prigerson, Maciejewski, & Rosenheck, 1999; Thomas, 1995).

Present Study

As can be seen from this selective review, there is a large body of research evaluating the association between relationship functioning and both physical and mental health. The majority of this research, however, has evaluated the association between a person's mental and physical health problems and his or her own level of relationship quality (or what are known as "actor effects"). In comparison, there are comparatively fewer studies that have evaluated the association between a person's mental and physical health problems and his or her partner's level of relationship quality (or what are known as "partner effects"). Furthermore, the research that has been done on partner effects often examines these associations for a particular disorder or illness. However, it is widely known that a person with a given mental disorder is likely to have a comorbid disorder (e.g., Kessler et al., 2006), and that mental and physical disorders often co-occur within the same individual. Therefore, it remains to be seen whether an observed

association between a given disorder and relationship functioning is due to the target disorder or to a co-occurring disorder. Whisman (1999) examined the specificity of the association between psychiatric disorders and marital quality after controlling for co-occurring disorders, and found evidence for specificity of this association for many disorders. However, that study examined specificity with respect to actor effects (i.e., the association between a given disorder and marital quality as measured within a given individual). Therefore, the specificity of the association between partner effects for mental and physical health problems and relationship quality has not been examined.

The present study was designed to evaluate the association between various mental and physical health problems and partners' marital satisfaction. Based on existing research, we hypothesized that there would be significant partner effects for the association between marital satisfaction and (a) depression, (b) anxiety, and (c) alcohol and drug problems. Furthermore, we hypothesized that these effects would remain significant when controlling for co-occurring mental or physical health problems.

Method

Participants

Data for the study came from the National Comorbidity Survey Replication (NCS-R), which is a nationally representative household survey of English speakers 18 years and older in the coterminous United States (Kessler, Chiu, Demler, & Walters, 2005). Respondents were selected on the basis of a multistage clustered area probability sample of households, and they completed face-to-face interviews between February 2001 and April 2003; the overall response rate was 70.9%. The survey was administered in two parts. Part I consisted of a core diagnostic assessment administered to all

participants ($n = 9,282$), whereas Part II consisted of an assessment of additional disorders as well as questions about risk factors, consequences, and other correlates, which was administered to all Part I respondents who met lifetime criteria for any disorder plus a probability sample of other respondents ($n = 5,692$). A probability subset of married individuals ($n = 2,237$) were asked additional questions about their marriage, of which 2,213 (99% of the eligible sample) completed the marital satisfaction items and were included in the current analysis.

On the basis of weighted data, the final sample consisted of 50% women and 50% men. The racial/ethnic distribution of the sample was 82% White, 6% Black, 8% Latino, and 4% other; corresponding figures for married-couple households in the United States, on the basis of 2000 census data (U.S. Census Bureau, 2000), were 79% White, 7% Black, 9% Latino, and 4% other. Therefore, the racial/ethnic composition of the NCS-R compares favorably with the general population of married-couple households in the United States. Participants had a mean level of education of 13.5 years ($SD = 2.5$) and a mean age of 49.2 years ($SD = 14.9$, range = 18 - 98); 18% of the sample was at least 65 years of age, which is the same percentage as found in the population of married-couple households in the United States, according to the 2000 census (U.S. Census Bureau, 2000).

Measures

Partner health problems. Partner health problems were measured by asking participants whether or not any of their close relatives (mother, father, brother, sister, son, daughter, and/or spouse/partner) have any of the following health problems: cancer, serious heart problems, serious memory problems including dementia, mental retardation,

permanent physical disability such as blindness or paralysis, serious chronic physical illness, alcohol or drug problems, depression, anxiety, schizophrenia or psychosis, manic-depression, or any other serious chronic mental problem. If the person indicated that they did have a family member with the condition, they were asked to list which family member(s) had the condition. We coded each health problem as present if the participant's partner had the condition, and absent if he or she did not. Because the numbers were too small for meaningful analyses for many of the categories, we collapsed the categories of "permanent physical disability like blindness or paralysis" and "any other serious chronic physical illness" into a category we called "other chronic physical problems." Similarly, we collapsed "serious memory problems including dementia," "mental retardation," "schizophrenia or psychosis," "manic-depression," and "any other serious chronic mental problems" into a category we called "other chronic mental health problems;" however, prevalence rates were still too low for meaningful analyses for this category so it was dropped from further consideration.

Marital satisfaction. Marital satisfaction was measured with 14 items (1, 2, 5, 8, 12, 16, 18, 20, 21, 24, 25, 26, 27, and 28) from the widely used Dyadic Adjustment Scale (DAS; Spanier, 1976). The scaling and response options, however, were modified from the original DAS: 9 items rated on a 6-point scale in the original DAS were rated on a 5-point scale in the NCS-R, four items rated on a 6-point scale in the original DAS were rated on a 4-point scale in the NCS-R, and one item rated on a 5-point scale in the original DAS was rated on a 4-point scale in the NCS-R. Items were standardized and averaged to create a composite scale ($\alpha = .86$); a constant was added so that the minimum score was 0.

Data Analyses

The association between marital satisfaction and partner health problems was evaluated using a series of analyses of covariance (ANCOVA). In each analysis, we evaluated group differences (i.e., whether the partner had vs. did not have the condition) in marital satisfaction, controlling for age, sex, education, and race/ethnicity (White, Black, Latino, and other). Effect sizes (i.e., Cohen's *d*) were computed for each condition. All the analyses were conducted using weighted data.

To evaluate the specificity of the association between partner's health problems and marital satisfaction, a hierarchical linear regression analysis was conducted, in which marital satisfaction was regressed on the set of health problems (which were dummy coded), controlling for demographic variables.

Results

Prevalence rates for specific health problems are provided in Table 1. Approximately 2.8% of participants reported their spouse had depression, 2.5% reported their spouse had anxiety, 1.0% reported their spouse had alcohol or drug problems, 2.9% reported their spouse had serious heart problems, 2.4% reported their spouse had cancer, and 4.1% reported their spouse had other chronic physical health problems. The mean score for marital satisfaction was 3.65 (*SD* = 0.59; range = 0 – 4.56).

Results from the ANCOVAs are presented in Table 1, which includes the means, standard deviations, frequencies, and effect sizes (i.e., Cohen's *d*) for each health problem. As can be seen in this table, compared to people whose partner did not have the condition, lower marital satisfaction was reported by people whose partner had (a) serious heart problems, (b) depression, or (c) anxiety. Controlling for demographic

variables, the magnitude of the association between having a partner with one of these health problems and one's own marital satisfaction were generally in the medium effect size range (i.e., d values of approximately .50).

Results from the regression analysis conducted to evaluate the specificity of the association between each health problem and marital satisfaction, controlling for the other health problems and demographic variables, is presented in Table 2. As can be seen in this table, a spouse's serious heart problem was uniquely associated with marital satisfaction. There was a non-significant trend for partner's depression to be uniquely associated with marital satisfaction. The association between partner's anxiety and marital satisfaction was no longer significant when controlling for the other health problems.

Discussion

The associations between different mental and physical health problems of a spouse and the participant's marital satisfaction were evaluated in a United States population-based survey of married individuals. Holding demographic variables constant, compared to people whose spouse did not have the corresponding health problem, marital satisfaction was lower for people with a spouse suffering from (a) serious heart problems, (b) depression, and (c) anxiety. When demographic variables and all the health problems were considered simultaneously, only a spouse's serious heart problem was uniquely associated with marital satisfaction. Other health problems were not significantly associated with marital satisfaction.

Serious Heart Problems

One possible explanation for the significant and unique association between serious heart problems and marital satisfaction could be that conflict resulting from an unhappy relationship affects a spouse physiologically and increases the risk for heart problems. In a review of the research on couple functioning and physical health conducted by Kiecolt-Glaser and Newton (2001), the authors conclude that marital conflict alters physiological functioning and that negative behavior during conflict enhances physiological change. Marital disagreement has frequently been associated with heightened blood pressure and heart rates (Broadwell & Light, 1999; Ewart et al., 1991; Flor et al., 1995; Frankish & Linden, 1996; Kiecolt-Glaser et al., 1993; Mayne et al., 1997; Thomsen & Gilbert, 1998), as well as endocrine and immune function (Kiecolt-Glaser et al., 1993; Malarkey, Kiecolt-Glaser, Pearl, & Glaser, 1994; Mayne et al., 1997). Thus, poor marital functioning could contribute to poor cardiovascular health. On the other hand, given that cardiovascular disease is the leading cause of death in the world, it is possible that having a partner with a serious health problem such as heart problems increases stress and strain in a marriage, resulting in lower marital satisfaction. Longitudinal research is needed, therefore, to evaluate the direction of the effect between marital satisfaction and cardiovascular health.

Another possible explanation for the association between serious heart problems and marital satisfaction could be the personality trait called *hostility*, which is characterized by mistrust, suspiciousness, cynicism, and a tendency to experience anger and resentment and to behave aggressively and uncooperatively (Smith, 1992). Hostility is a high risk factor for coronary heart disease (Miller et al., 1996), and contributes to negative marital interaction and erodes marital quality (Kiecolt-Glaser & Newton, 2001).

Hostility and anger can also contribute to poorer health outcomes by damaging social relationships, heightening physiological responses to stressful interactions, and increasing unhealthy behaviors such as smoking and alcohol abuse (Kielcolt-Glaser & Newton, 2001). Such unhealthy habits combined with angry aggressive behaviors of a spouse suffering from heart problems can be upsetting to the partner, and can lead to lower marital satisfaction.

The finding that spouses' serious heart problems remained significantly associated with marital satisfaction when controlling for other conditions, including depression and anxiety, suggests that this association was not due to shared variance with these other conditions. Therefore, it appears that the association is due to something that is particular about heart problems, which could include the partner's decrease in physical activity or in other previously pleasurable activities, forced change in diet or daily routine, or personality changes, including traits such as hostility. Decreased marital satisfaction of a spouse with a partner with heart problems could also be influenced by the decline in activities couples participate in together, such as sexual activity or simple leisure time together. According to the behavioral exchange theory, the rate of exchange of pleasing and displeasing behaviors between spouses is a major component of marital functioning leading to either satisfaction or distress in a marriage (Jacobson, Follette, & McDonald, 1982; Stuart, 1969). The behavioral events exchanged between spouses account for a significant proportion of the variance in daily marital satisfaction, and there is reasonably consistent evidence that daily marital behaviors are significantly correlated with marital happiness overall (Johnson & O'Leary, 1996). A couple dealing with serious heart problems may be exchanging fewer positive behaviors (i.e., sexual activity or pleasurable

activities together) and increasingly more negative behaviors (i.e., arguments or criticism), leading to marital dissatisfaction. Even though the direction and the cause of the association between serious heart problems and marital satisfaction are still unknown, this finding demonstrates the importance of continuing research on this association.

Depression

Controlling for demographic variables, an association was also found between a spouse's depression and the participant's decreased marital satisfaction, although this was only a non-significant trend when additionally controlling for the other health problems. One possible reason for this finding is that living with a depressed spouse is a source of considerable psychological burden (e.g., Coyne et al., 1987; Fadden, Bebbington, & Kuipers, 1987; Jacob et al., 1987). The specific burdens experienced by those close to a depressed patient were shown to intensify their distress, causing worry, reducing sharing of pleasurable activities, and rejecting support (Coyne et al., 1987). Living with a depressed spouse may also affect a person's mood (Benazon & Coyne, 2000), making it difficult to function well in the relationship. For example, 40% of people with depressed spouses were sufficiently distressed to warrant treatment themselves (Coyne et al., 1987). The finding that living with a depressed spouse puts significant burden on a person demonstrates that depression is not limited to the impairment of the depressed person alone (Benazon & Coyne, 2000).

In addition to increased burden, another possible reason for the finding that spouse's depression is associated with marital satisfaction is the common link between depression and pain, increased health threats, and poorer health habits. In the Medical Outcomes Study, 11,242 outpatients with either a current depressive disorder or

depressive symptoms without the official disorder had worse physical, social, and role function, worse perceived current health, and greater bodily pain than patients with no chronic conditions (Wells et al., 1989). Research shows again and again that depression changes cardiovascular, immune, and endocrine function, and these changes are enough to increase various health threats (Glassman & Sharpio, 1998; Hermann et al., 1998; Kielcolt-Glaser, Page, et al., 1998). Additionally, distressed individuals are more likely to have poorer health habits including inadequate sleep and nutrition, and less exercise (Kielcolt-Glaser & Glaser, 1988), which can in turn negatively influence relationship functioning.

Another possible explanation for the association between depression and low marital satisfaction is the concept known as the *fundamental attribution error* (Ross, 1977), a phenomenon in which people tend to attribute the negative behavior of another person to internal factors (i.e. personality) rather than understanding the external explanations from the environment (i.e. illness). Unwelcome behavior is attributed to the person unless overwhelming evidence points to external factors as the leading cause, and people feel more sympathy and less frustration toward those who exhibit upsetting behavior through no fault of their own (Williamson et al., 2005). In the case of depression where many of the symptoms include behaviors that can be seen as negative in a relationship, for example the lack of interest in previously pleasurable activities, spouses are more likely to be resentful towards their depressed mates when they attribute those behaviors to the person rather than to his or her depression. A spouse may blame his or her depressed partner for acting passive and uninterested, not understanding that those are symptoms and side effects of the illness.

Anxiety

Controlling for demographic variables, an association was also found between a partner's anxiety and the participant's decreased marital satisfaction. Although much of the research on partner burden associated with psychiatric disorders has been conducted with depression, it is possible that these or other types of burden would also be associated with living with someone with anxiety. If this were found to be true, then this may account for the observed association between partner anxiety and marital satisfaction. Examining the types of burdens associated with living with someone with an anxiety disorder would be an important topic for future research.

However, it is important to note that the association between marital satisfaction and anxiety was no longer significant from regression analyses when controlling for other health problems, indicating the possibility that anxiety has negative effects on a relationship only when it is co-occurring with other illnesses. Alternatively, a dissatisfactory relationship could increase the likelihood and persistence of anxiety in the spouse, but only in addition to increasing the chances of other health problems as well. Even though anxiety affects nearly 18% of American adults in a given year (Kessler, Chiu, Demler, & Walters, 2005), anxiety is typically diagnosed in conjunction with other mental or physical illnesses, most commonly with depression and alcohol or drug abuse. Unlike other health problems, such as depression or serious heart problems that can be uniquely diagnosed in an individual, patients are rarely clinically diagnosed solely with anxiety. In some cases, the co-occurring health problems may mask the symptoms of anxiety or make them significantly worse (Kendler et al., 1992), making diagnosis or spousal recognition of the illness more challenging. Because anxiety has frequently been

associated with depression and other serious illnesses, and according to our findings and previous research those illnesses have been associated with overall poorer well-being of the individual and a partner's decreased marital satisfaction, anxiety may have an indirect association with marital satisfaction.

Alcohol and Drug Problems

Although the association between partner alcohol and drug problems did not reach conventional levels of statistical significance, it is worth mentioning, given that the effect size for this health problem was comparable in magnitude to the significant differences observed for depression and anxiety. Due to the widespread research which shows that marital conflict is both a precursor and an outcome of alcohol and drug abuse (Kielcolt-Glaser & Newton, 2001), we hypothesized that there would be an association between marital satisfaction and alcohol and drug abuse. Compared to depression and anxiety, the prevalence of partner alcohol or drug use was much smaller. Therefore, the lack of significant association between marital satisfaction and partner alcohol and drug problems may be due to sample size and low statistical power. Furthermore, research has shown that marital functioning is impaired primarily when there is a discrepancy in alcohol or drug use. For example, discrepancies in heavy drinking are associated with (a) lower concurrent marital satisfaction (Mudar, Leonard, & Soltysinski, 2001), and (b) longitudinal declines in marital satisfaction (Homish & Leonard, 2007). Therefore, lower marital satisfaction may have been observed among partners of people with alcohol or drug problems if they themselves did not have a problem with the substance. Research on partner effects of alcohol or drug use problems should routinely assess the alcohol or drug use of the target individual as well.

Other Health Problems

The present study found no association between marital satisfaction and cancer or other chronic physical problems. A possible explanation for the lack of an association between marital satisfaction and cancer as well as other chronic physical problems is that these illnesses are not easily misattributed and blamed on the patient, but rather easily explained by external factors. Treatments and consequences of such illnesses are also often more physical than psychological, and the side effects can easily be explained by the mere presence of the disease. Although the diagnosis and treatment of cancer is upsetting for both patient and partner (Manne et al., 2007), couples turn to one another for emotional and tangible support (Pistrang & Barker, 1992; Primomo, Yates & Woods, 1992), which promotes closeness and can strengthen the relationship. And even though some spouses respond negatively to the increasing demands of providing support for their ill partners, many instead choose to be more present and available (Manne, Alfieri, Taylor, & Dougherty, 1999). Additionally, the quality of the relationship before the onset of illness affects the responsiveness and amount of support provided by the spouse (Manne, Alfieri, Taylor, & Dougherty, 1999). Coping with illness is shown to have significantly fewer negative behaviors among spouses who felt the relationship was satisfying before the onset of the illness (Manne, Alfieri, Taylor, & Dougherty, 1999).

Limitations

It is important to note that given the cross-sectional design of our study, causal inferences cannot be made about the associations we found between relationship satisfaction and health problems. For example, previous studies on depression and marital quality show that the relationship between the two factors appears to be bidirectional,

where unhappy marriages enhance depressive symptoms and depression promotes poorer marital quality (Beach, Fincham, & Katz, 1998; Fincham & Beach, 1999). Depression, anxiety, and serious health problems could lead to low marital satisfaction, but poor marital satisfaction could also be a contributing factor for each of the three health problems. A longitudinal study is needed to understand the direction of the association and the cause.

An additional limitation of our study is the lack of precision and detail in the categorical measures used in assessing health problems. Participants were not asked about the severity of illness of his or her partner, simply about the presence of illness. Some participants may have reported a health problem like depression as present only if it was clinically diagnosed as depression, while others may have reported depression as present after seeing a partner troubled for several weeks. Furthermore, had they been asked, the partners of the participants in this study may have answered some of the questions differently, because unless clinically diagnosed, the presence of certain illnesses such as depression and anxiety can be debatable. The presence or lack of treatment may also be an important factor in studying the association with marital satisfaction, due to the possibility that the partner of a patient who is being treated for serious heart problems or for depression may feel differently than the partner of a patient who is receiving little to no treatment at all. For an illness such as cancer, the stage of the cancer would be an important factor in evaluating relationship satisfaction. A couple that recently learned of the presence of cancer may react differently than a couple that has been dealing with the illness for many years. Additionally, the partner of someone with poor chances of survival may have a different level of relationship satisfaction than the

partner of a person with better chances of survival. In our study, no such distinctions were made. In future research, the questions about illness would need to include specifications such as degree of severity, presence and type of treatment used, and the amount of time spent dealing with the illness. Also, both partners would be evaluated and their responses compared for increased accuracy.

In future research it will be important to understand why serious heart problems of patients are uniquely associated with relationship quality as perceived by their spouses. It will also be important to understand why there is a significant association between marital satisfaction and serious heart problems but not between marital satisfaction and other physical problems. What makes heart problems unique to relationship functioning? Determining the reason in future studies may prove highly valuable for improving current therapy practices and finding a proper approach for couples dealing with different health issues.

Despite the limitations, there are some clinical implications of this study. Clinicians working with couples should take into account the association between different types of health problems and relationship satisfaction, and approach couples facing different problems accordingly. Understanding the fundamental attribution error and various personality traits associated with different illnesses will be important in couple-focused counseling approaches. Given the physical and mental health implications of well-functioning relationships, instead of focusing exclusively on the patient's illness, it may be important to also address the burden, distress, and frustrations of the spouse in order to improve marital satisfaction and functioning.

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Table 1

*Prevalence Rates of Spousal Health Problems and Their Associations With Marital**Satisfaction*

Health Problem	%	Present		Absent		<i>F</i>	<i>d</i>
		Mean	<i>SD</i>	Mean	<i>SD</i>		
Cancer	2.4	3.65	0.50	3.63	0.61	8.76	0.02
Serious heart							
problems	2.9	3.26	0.51	3.64	0.60	10.63*	0.65
Alcohol or drug							
problems	1.0	3.41	0.68	3.64	0.60	8.82	0.37
Depression	2.8	3.32	0.75	3.64	0.60	9.70*	0.54
Anxiety	2.5	3.36	0.59	3.64	0.60	9.47*	0.46
Other chronic							
physical problems	4.1	3.57	0.52	3.63	0.61	8.72	0.10

* $p < 0.05$

Table 2

*Results of Linear Regression Analyses Regressing Marital Satisfaction on Demographic**Variables and Partner Health Conditions*

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>
Age	.01	.00	.23	.00
White	.03	.11	.02	.77
Black	-.38	.14	-.15	.01
Latino	.12	.13	.05	.37
Sex	-.00	.04	-.00	.92
Depression	-.26	.14	-.07	.06
Anxiety	-.07	.15	-.02	.63
Alcohol or drug problems	-.22	.20	-.04	.29
Serious heart problems	-.34	.13	-.10	.01
Cancer	.01	.14	.00	.97
Other chronic physical problems	-.04	.11	-.01	.74