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Marital and Sexual Satisfaction, Depression, Anxiety, and Stress among Wives of Patients with Chronic Illnesses

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Abstract

Objectives: The objectives of the study were to explore the psychological health, as well as the levels of marital and sexual satisfaction, of wives of patients with a chronic illness. **Methods:** The sample consisted of 34 women, whose husbands were diagnosed and undergoing treatment for a chronic illness (coronary heart disease; diabetes; or cancer). **Results:** Correlational, comparative, and predictive analyses were conducted on the data. Clinically significant marital and sexual dissatisfactions were found. Wives reported moderate levels of depression and anxiety, but severe levels of stress. Depression and sexual satisfaction were found to be significant predictors of marital satisfaction. Marital dissatisfaction scores were significantly lower for wives who were employed as compared to unemployed wives. **Discussion:** Wives are impacted by the illness status of their spouse. The additional stress of caregiving, along with societally ascribed roles and responsibilities on women, creates a more difficult, stressful environment, which affects the relationship satisfaction as well as psychological health and well-being.

Keywords: Anxiety, Chronic illness, Depression, Marital satisfaction, Sexual satisfaction, Stress, Wives of patients

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Introduction

When one thinks of the idea of a "wife," words that come to mind could be caring, loving, supportive, and emotionally available. Moreover, these could be the social expectations put onto any woman, not just a wife. Juggling the multiple roles, responsibilities, and expectations that are put onto women every day would have an impact on their psychological health. Add in the stress of caring for, and living with a sick spouse, and the roles, responsibilities, and stresses increase.

Women caregivers face more stress than males.[1,2] Juggling roles, responsibilities, and societal expectations that are thrust onto women in general take a toll on their physical, emotional, as well as psychological health.[3-5] The gender role socialization framework,[3] the gender role expectation framework,[4] and in theories of labor marked segregation,[5] all suggest that women put in more hours of care than men, face greater amounts of challenges from care receivers, and thus need more help with activities of daily living. Women are less likely to place the ill relative into care facilities, because of societal and role expectations on them to be the care giver, leading to more burden of responsibility and care onto them. This leads to increased distress, depression, and burden, among women caregivers.[6-10]

Chronic illnesses tend to permeate all aspects of a family's life, affecting not only the patient but also the partner, the couples dynamic, and the relationship satisfaction levels.[11,12] Illness symptoms indirectly impair relationship quality and elicit anger and frustration in the partner, which increase relational dis-satisfaction and distress.[13] The more severe the symptoms, the greater the marital distress experienced. According to Marital Quality Theory,[14] levels of distress experienced by one partner and impact marital satisfaction. Behavioral and personality changes from the patient overpower emotional bonds[15] and leave spouses feeling emotionally detached from their afflicted partner.[16] This may lead to increase in conflicts and negative affect. The greater the negative affect, the greater the frequency of depression, anxiety, and somatization in the caregiver.[17-19]

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Min *et al*.[20] found that spousal caregiving and marital satisfaction, both acted as moderators for the wives' depressive symptoms: Wives caring for spouses with chronic illnesses reported more depressive symptoms, but depressive symptoms were lower for couples with higher marital satisfaction. The higher the patients' functional impairment, greater the burden, and thus lower the relationship satisfaction.[21,22] Psychological distress, especially depression, was related to lower relationship satisfaction in caregivers.[23-28] Men and women in satisfying marriages appear to be at lower risk for psychiatric disorder.[29] Depression has been linked to marital satisfaction[30] and also reduction in the efficacy of treatment.[31,32]

In India, reports suggested that the number of deaths due to chronic diseases has been steadily rising.[33-36] In 2016, India reported a total of 9,569,000 deaths,[37] of which 27% were caused by cardiovascular disease; 11% by chronic respiratory disease; 9% by cancers; 3% by diabetes; and 13% were other non-communicable diseases. With men having a higher probability

of dying a premature death due to non-communicable diseases than women,[37] we see that the burden of care often falls onto women.

Rising numbers of chronic illnesses in India, the fact that they are observed more frequently in males, all points to the fact that women have an increased burden of care taking for patients with chronic illness. The aim of this paper was to study the effects that chronic illnesses had on the wives of patients, looking into the psychological health, in terms of depression, anxiety, and stress, as well as the feelings of marital and sexual satisfaction of the wives.

Methods

A quantitative analysis was undertaken on the data obtained, using the sampling methods and tools explained ahead.

Sample

The sample for this paper was drawn from a larger study sample which had been approved by the ethical board at the Savitribai Phule Pune University. Informed consent was taken from all participants. Participants had the option to withdraw consent at any time.

The original sample consisted of 35 women. Using the boxplot method, outliers were found and removed from the final sample. Thus, the final sample consisted of 34 women, whose husbands were diagnosed with a chronic illness, in one of the three categories: Coronary heart disease ($n = 26$); diabetes ($n = 7$); and cancer ($n = 1$). The sample was subjected to tests for normality. Skewness and Kurtosis values, as well as a visual interpretation done with qq plots, found the sample to be normally distributed.

Table 1 shows the descriptive statistics of the sample. The mean age of the sample was 473.65 months (SD = 99.97) (39.5 years); duration of marriage was 165.88 months (SD = 116.40) (13.8 years). Total duration of caregiving mean was 95.29 months (SD = 56.13) (7.9 yeas). Average years of education of wives was found to be 16 (SD = 1.44). The mean age of the husbands was 511.06 months (SD = 116.65).

From the wives, 10 had no illness, eight were being treated for thyroid, six had hypertension, three were receiving treatment for cholesterol and diabetes type two, and one each in the categories of endometriosis, polycystic ovary syndrome, rheumatism, and obesity.

Tools

Three standardized questionnaires were used for this study coupled with a brief sociodemographic form. Individuals filled out either paper pencil copies or online Google Forms of the questionnaires by themselves.

Index of marital satisfaction (IMS) and index of sexual satisfaction (ISS)

The IMS and the ISS are both a 25-item instrument designed to measure the degree, severity, or magnitude of a problem in the marital and sexual relationship, respectively. They measure the extent to which one partner perceives problems in the relationship. The IMS and ISS contain 25 category-partition (Likert-type) items, some of which are worded negatively to offset the potential for response set bias. Scores range from 0 to 100, with higher scores indicating greater degrees of marital or sexual discord. A score above 30 indicates clinically significant dissatisfaction. Scores above 70 indicate that the individual is experiencing severe stress, with a clear possibility of some type of violence being used to deal with the problem.

The IMS has a mean Cronbach's α of 0.96, indicating excellent internal consistency, and an excellent (low) standard error of measurement of 4.00. The IMS also has excellent 2 h test-retest correlation of 0.96. The IMS has excellent concurrent validity, correlating significantly with the Locke-Wallace Marital Adjustment Test. The IMS also has very good known-groups validity, discriminating significantly between couples known to have marital problems and those known not to.

The ISS has a mean Cronbach's α of 0.92, indicating excellent internal consistency, and a (low) SEM of 4.24. The test-retest correlation was found to be 0.94. The ISS has excellent concurrent validity, correlating significantly with the Locke-Wallace Marital Adjustment Scale and the IMS. It has excellent known-groups validity, significantly distinguishing between people known to have problems with sexual satisfaction and those known not to.

Depression anxiety stress scale 21 (DASS 21)

The DASS is a self-report questionnaire and designed to measure the negative emotional states of depression, anxiety, and stress. The shorter 21-item version was used here. Each subscale contains 7 items. The subjects are asked to rate the severity or frequency of each item, on a 4-point scale. The three scales are moderately

Table 1: Descriptive statistics and parametric correlations (Pearson's r) for study variables

Variable	*n*	*M*	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1. PT age[a]	34	511.06	116.65	1										
2. Duration of caregiving[a]	34	95.29	56.13	0.349*	1									
3. Duration of marriage[a]	34	165.88	116.40	0.860**	0.379*	1								
4. SP age[a]	34	473.65	99.97	0.955**	0.376*	0.838**	1							
5. Education (in years)	34	16.00	1.44	−0.363*	−0.099	−0.300+	−0.248	1						
6. SP marital satisfaction[b]	34	52.74	23.79	0.217	0.135	0.280	0.143	−0.142	1					
7. SP sexual satisfaction[b]	34	51.71	21.15	0.199	0.300+	0.324	0.148	−0.134	0.651**	1				
8. SP depression	34	17.65	11.64	−0.027	−0.183	−0.159	−0.058	−0.421*	0.379*	0.079	1			
9. SP anxiety	34	18.18	11.34	0.125	−0.095	0.171	0.087	−0.495**	0.239	0.163	0.403*	1		
10. SP stress	34	22.97	11.25	0.165	0.005	0.118	0.104	−0.550**	0.278	0.267	0.725**	0.637**	1	
11. Number of children	34	1.21	0.95	0.665**	0.283	0.651**	0.572**	−0.357*	0.473**	0.417*	0.078	0.397*	0.260	1

PT: Patients, SP: Spouses/wives. [a]Variables are measured in months. Bootstrapping indicated that the significant correlation coefficients are reliable. [b]Higher score on the variables indicate lower satisfaction. *P<0.05 (two tailed), **P<0.01 (two tailed), +P<0.05 (one tailed)

intercorrelated with typical r_s ranging between 0.5 and 0.7. The internal consistency, Cronbach's α for the DASS was found to be excellent, ranging between 0.89 and 0.96.

Results

Correlation, multiple linear regression, and comparative analysis were conducted on the data. The results of the study found that the mean scores on the marital and sexual satisfaction scales were 52.74 (SD = 23.79) and 51.71 (SD = 21.15), respectively, indicating clinically significant marital and sexual dissatisfaction [Table 1].

Correlation Analysis

On the DASS-21 [Table 1], scores on the depression subscale, 17.65 (SD = 11.64) indicates a moderate level of depression. On the anxiety subscale, mean scores of 18.18 (SD = 11.34) are indicative of a severe level of anxiety. Mean scores on the stress subscale of 23.97 (SD = 11.25) were indicative of a moderate level of stress in the sample.

A Pearson correlation was also conducted on the variables [Table 1]. A significant negative correlation (one tailed) was found between wives' education (in years) and marriage duration, r = –0.300; $P < 0.05$. Significant negative correlations (two tailed) were also found between wives' education level (in years) and scores on depression, r = –0.421; $P < 0.05$; anxiety r = –0.495; $P < 0.01$; stress r = –0.550; $P < 0.01$; as well as number of children r = –0.357; $P < 0.05$, showing greater the level of education, are correlated to lower scores of depression, anxiety, and stress. It is also seen that it is correlated with a lower duration of marriage and number of children.

Marital dissatisfaction and sexual dissatisfaction were significantly positively correlated to each other, r = 0.651; $P < 0.01$, indicating an increase in scores on one construct increases the scores on the other. Marital dissatisfaction and depression were also significantly positively correlated; r = 0.386; $P < 0.05$. Duration of caregiving and sexual satisfaction were also found to be positively correlated (one tailed) r = 0.300; $P < 0.05$. Duration of marriage and sexual dissatisfaction too was found positively correlated (one tailed), r = 0.324; $P < 0.05$; indicating that there is a relationship between sexual dissatisfaction and an increase in the number of years of marriage.

Significant positive correlations were found between the number of children and IMS, r = 0.473; $P < 0.01$, indicating a positive trend between increase in number of children and dissatisfaction scores in the marital relationships. Significant positive correlations were also found between number of children and ISS, r = 0.417; $P < 0.05$, indicating a trend for greater dissatisfaction with sexual relations as the number of children increase. Anxiety was also significantly and positively correlated with number of children; r = 0.397; $P < 0.05$, indicating greater anxiety scores with an increase in the number of children.

Insignificant, though very weak positive correlations was found between number of children and stress (r = 0.260; $P = 0.138$). Marital dissatisfaction and anxiety (r = 0.239; $P = 0.173$) and marital dissatisfaction and stress (r = 0.278; $P = 0.112$) were also found to be positively, but insignificantly correlated, indicating a positive trend of anxiety and stress scores as levels of marital dissatisfaction increased. Similar weak positive correlation was found between sexual dissatisfaction and stress (r = 0.267; $P = 0.127$).

Multiple Linear Regression Analysis

Table 2 provides for multiple regression analysis for marital dissatisfaction by stepwise method. Sexual dissatisfaction and depression were found to be significant predictors of marital dissatisfaction, adjusted $R^2 = 0.502$, indicating that more than half of the variance in marital dissatisfaction is attributed to sexual dissatisfaction and depression.

Comparative Analysis

A Mann–Whitney U-test was also conducted to check significance of differences of scores based on employment status [Table 3]. On dividing the sample based on the employment status of the wives, significant differences were found in scores relating to husbands age (U = 74.00; $P < 0.01$), with employed wives chronically ill husbands (M = 463.06 months; SD = 97.86) having lower age than unemployed wives (M = 559.06 months; SD = 116.58). Duration of marriage was also significantly different (U = 71.00; $P < 0.01$), with employed having a lower duration of marriage (M = 121.41 months; SD = 99.67) than unemployed (M = 210.35; SD = 117.51). Similar findings were also found in wives age (U = 75.50; $P < 0.01$), with the employed wives having a lower overall age (M = 436.24 months; SD = 885.06) than the unemployed wives (M = 511.06; SD = 102.01). Number of years of perusing education (U = 89.00; $P < 0.05$) too was found to be significantly higher for employed wives (M = 16.53; SD = 1.38), compared to unemployed wives (M = 15.47; SD = 1.33). Marital dissatisfaction scores (U = 93.00; $P < 0.05$) were also seen to be significantly lower for employed wives (M= 45.82; SD =21.85), compared to unemployed wives (M = 59.66; SD = 24.24).

Discussion

The results indicate moderate levels of depression and stress, but severe levels of anxiety in the sample of spousal caregivers. It rings true to what Revenson[11] had said "The chronic illness of one family member permeates every aspect of family life." Porto[12] also mused that chronic illnesses are stressful for both patients and spouses. Studies have also found support for an increase in psychological distress in wives of patients with chronic illnesses[8] and also greater tendencies to worry and to ruminate.[6] The roles and responsibilities held by women are inherently stressful and these stresses may get further magnified by caregiving responsibilities. Women caregivers have more stressors than their male counterparts. In fact, the roles and responsibilities as well as societal expectations and pressures put onto women caregivers, as

Table 2: Multiple linear regression (stepwise) for marital satisfaction

Model	*Predictors*	*R*	R^2	*Adjusted* R^2	β	*F*
1	SP sexual satisfaction	0.651	0.424	0.406	0.651	23.538***
2	SP sexual satisfaction and SP depression	0.729	0.532	0.502	0.625[a],0.330[b]	17.612***

SP: Spouses/wives. *N*=34, β=Standardized coefficient beta. [a]β for SP sexual satisfaction. [b]β for SP depression. Dependent variable=Marital satisfaction. ***$P<0.001$

Table 3: Mann–Whitney U-test between employment status for study variables

Variable	*SP employed*				*SP unemployed*				*Mann–Whitney U*
	n	*M (SD)*	*Mean rank*	*Sum of ranks*	*n*	*M (SD)*	*Mean rank*	*Sum of ranks*	
PT age[a]	17	463.06 (97.86)	13.35	227.0	17	559.06 (116.58)	21.65	368.0	74.0**
Duration of caregiving[a]	17	87.53 (54.46)	16.32	277.5	17	103.06 (58.34)	18.68	317.5	124.5
Duration of marriage[a]	17	121.41 (99.67)	13.18	224.0	17	210.35 (117.51)	21.82	371.0	71.0**
SP age[a]	17	436.24 (85.06)	13.44	228.5	17	511.06 (102.01)	21.56	366.5	75.5**
Education (in years)	17	16.53 (1.38)	20.76	353.0	17	15.47 (1.33)	14.24	242.0	89.0*
SP marital satisfaction[b]	17	45.82 (21.85)	14.47	246.0	17	59.66 (24.24)	20.53	349.0	93.0*
SP sexual satisfaction[b]	17	47.86 (22.26)	15.82	269.0	17	55.56 (19.90)	19.18	326.0	116.0
SP depression	17	16.94 (12.09)	16.41	279.0	17	18.35 (11.49)	18.59	316.0	126.0
SP anxiety	17	16.82 (10.03)	16.35	278.0	17	19.53 (12.68)	18.65	317.0	125.0
SP stress	17	21.82 (11.50)	16.26	276.5	17	24.12 (11.21)	18.74	318.5	123.5

PT: Patients, SP: Spouses. Bootstrapping indicated that the significant Mann–Whitney *U* values are reliable. [a]Variables are measured in months. [b]Higher score on the variables indicates lower satisfaction. *P<0.05 (exact significance one tailed), **P<0.01 (exact significance one tailed)

well as on women in general, tend to take a toll on their physical, emotional as well as psychological health.[3-5]

In terms of the marital and sexual satisfaction scales, means observed were 52.74 (SD = 23.79) and 51.71 (SD = 21.15), respectively, indicative of clinically significant dissatisfaction in both the marital and sexual spheres of their lives. The results of a decrease in satisfaction in both the marital and sexual spheres are also reported by Sampson *et al*.[38] and Kiecolt-Glaser and Newton.[39] This study too found a strong positive correlation between the scores on the marital and sexual satisfaction indexes (r = 0.651; P < 0.01), indicating that dissatisfaction on one index indicated a trend of dissatisfaction on the other as well. Since marital satisfaction and sexual satisfaction are closely linked, a decrease in one tends to have a serious impact on the other.[40-43] In general, sexual satisfaction is associated with marital satisfaction,[44-48] further indicating that the results are in agreement with literature available. Caregiving over time may reduce feelings of contentment and fulfillment in the relationship. Upsetting experiences while caregiving, precipitate negative feelings, making it harder to find happiness in the relationship,[15] effectively decreasing the overall satisfaction levels of the relationship.

An interesting finding is the significant positive correlation between IMS and depression (r = 0.379; P < 0.05). Lower marital satisfaction (indicated by higher scores on the IMS) was related to higher scores on the depression subscale of the DASS-21. Beach *et al*.[24] and Whisman and Uebelacker[25] found that, over time, marital discord predicts an increase in depressive symptoms. Min *et al*.[20] also found similar results, where lower depressive symptomatology was found in couples who had greater marital satisfaction. Hafstrom and Schram[49] also found significantly lower marital satisfaction scores for wives with chronically ill husbands. A feeling of detachment builds as emotional bonds wear down.[16] Wearing down of emotional bonds, higher perceived caregiver burden, reduced relational contentment, upsetting caregiving experiences,[7,22] reduced time for oneself and leisure activities, feelings of isolation due to caretaking,[50] greater stress, and fewer social resources,[10] all contribute to increased feelings of depression in the relationship. Women, in general, face more stress than males. The roles, responsibilities, and societal expectations placed on women caregivers, take a toll on their physical, emotional, and psychological health. They also tend to face higher levels of caregiving stress, have fewer social resources, and lower levels of psychological and physical health.

The significant positive correlations between number of children and IMS (r = 0.473; p <.01), and between number of children and ISS (r = 0.417; P < 0.05), and number of children and anxiety (r = 0.417; P < 0.05), could be explained by Pinquart and Sörensen[7] who reported that women caregivers encountered greater stressors relating to roles and responsibilities of caregiving and that most women did not have a say in caregiving responsibilities that are usually thrust on them. Theories of gender roles and expectations, all suggest that women put in more hours of care than men.[3-5] Eastern Asian countries maintain more traditional gender roles than Western societies. Caring for family is a role ascribed traditionally to women in eastern societies, thus increasing family responsibilities and stress.[51] Number of family members is thus negatively associated with satisfaction, as there are more people that need to be taken care of.[51] Childbearing and caregiving are another role thrust on a woman, further increasing the roles and responsibilities that women tend to have.[3-5] The stress of having children, raising them, as well as looking after a spouse with an illness could lead to more relationship conflicts, and thus reduce the levels of marital and sexual satisfaction, and increase the levels of anxiety.

Wives' education level (in years) was significantly and negatively correlated with scores on depression (r = –0.421; P < 0.05); anxiety (r = –0.495; P < 0.01); and stress (r = –0.550; P < 0.01), indicating a relation between higher education levels and lower scores on depression, anxiety, and stress. Mirzaei *et al*.,[52] Brännlund and Hammarström,[53] and Murasko[54] found that higher levels of education were associated with lower levels of psychological distress. Fryers *et al*.[55] found that lesser privileged in social position, in terms of education and income, the greater the prevalence of mental health conditions. Cutler and Lleras-Muney[56] found that the better educated partake in healthier behaviors, take more preventative care, and also have more responsible healthier lifestyles. It could also be hypothesized that the higher education status helped the wives to seek out more information as well as build on better strategies to buffer the impacts of caregiving on psychological health.

Sexual dissatisfaction and depression were found to be significant predictors of marital dissatisfaction, adjusted R^2 = 0.502, indicating that more than half of the variance in marital dissatisfaction is attributed to sexual dissatisfaction and depression [Table 2]. A study conducted by Hollist *et al*.[57] who also found that marital dissatisfaction was a strong predictor of depression 2 years later. Litzinger *et al*.[58] also found that communication and sexual satisfaction independently predict marital satisfaction. They further stated that, on the off chance that couples experience issues in communication and yet are sexually

satisfied, they will experience more prominent marital satisfaction than if they have a less fulfilling sexual relationship. Hence, sexual satisfaction may partially compensate for the negative impacts of poor communication on marital satisfaction. This can be seen that in the model 1 of stepwise linear regression [Table 2], 40.6% of the variance in marital dissatisfaction is solely attributed to sexual dissatisfaction.

The scores on the IMS were found to be significantly different (U = 93.00; $P < 0.05$) for employed (M = 45.82; SD = 21.85) and unemployed (M = 59.66; SD = 24.24) women. The education level was also found to be significantly different (U = 89.0; $P < 0.05$), with employed women having higher education levels (M = 16.53 years; SD = 1.38) than unemployed women (M = 15.47 years; SD = 1.33). Although, both employed and unemployed wives tend to be dissatisfied within their marriage, the unemployed wives were seen to be more dissatisfied. Evidence since the 1980s showed that women who were employed and higher educated had better marital quality than housewives.[59] Employment is seen to have a positive association with psychological well-being[60,61] as it provides financial stability as well as a chance to establish better social support systems. Employment provides a chance to expand one's roles,[62,63] which then has a positive impact on one's psychological health.[64-66] Making financial contributions to the family could be seen as being more socially valued, which may have a positive impact on a woman's mental health, as seen in Wilk's[67] longitudinal study, which showed a decrease in distress when mothers transitioned into employment.

Conclusion

Chronic illnesses tend to impact both the patient and the spouse.[11,12] The impacts tend to be both physical as well as psychological. They impact the marital dyad and create strain on the individuals in the dyad.

Female partners and caregivers tend to be affected by the partner's chronic illness status.[8,9,68] The roles and responsibilities ascribed to women, gender roles and socialization make it harder for women to cope with the additional responsibility.[3-5,51] Invisible factors, which could be expectation put on women caregivers, add to the feelings of stress and strain.[1,2]

These tend to affect the emotional and psychological health of caregivers, as seen by the results of this study. The higher levels of depression, anxiety, and stress, as well as poorer marital and sexual satisfaction, are all in line with literature available.

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