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ARTICLE

Psychological Health of Wives' of Patients with Chronic Illnesses

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Abstract: Objectives: Chronic illnesses are more prevalent in males. The expectations of caregiving, thus falls on the women. Role expectations from women, increases stress, strain and the possibility of Psychological health concerns. In this paper, we explore the psychological health, as well as the levels of marital and sexual satisfaction of women caregivers.
Method: The sample consisted of 35 women, whose husbands were diagnosed with, and undergoing treatment for a chronic illness (Coronary Heart Disease (CHD); Diabetes; or Cancer). Three standardized questionnaires, the Index of Marital Satisfaction (IMS), Index of Sexual Satisfaction (ISS) and the Depression Anxiety Stress Scale 21 (DASS 21) were used.
Results: Correlational and predictive analysis were conducted on the data. Clinically significant marital and sexual dissatisfaction were found. Wives' also 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.
Discussion: Women caregiver 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 psychological health and well-being.

Keywords: Depression, Anxiety, Stress, Wives', Caregivers, Chronic illness

1. Introduction

Women caregivers tend to face more stress, [1,2] with the sheer number of roles, responsibilities, expectations placed on them. This takes a toll on their physical, emotional as well as psychological health [3-5]. The gender-role socialization framework, [5] the gender-role expectation framework [3] and theories of labour marked segregation, [4] suggest that women put in more hours of care, face greater amounts of challenges from the care receivers, and thus need more help with activities of daily living than men. The societal and role expectations placed on women to be the care givers, makes it less likely for them to place their ill relatives into a care facility, thus leading to more burden of responsibility and care onto them. This tends to increase distress, depression and burden, among women care givers [6-10].

In India, reports suggest that the number of deaths due to chronic diseases have been steadily rising [11-14]. The World Health Organization reported a total of 9,569,000 deaths in India in 2016 [15]. Of those total deaths, 27% were caused by cardiovascular disease; 11% by chronic respiratory disease; 9% by cancers; 3% by diabetes, and 13% were other Non-communicable Diseases. In

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2016, 63% of all deaths were from Non-Communicable Diseases, which increased from 60% in 2014 [15-17]. With men having a higher probability of dying from a non-communicable disease, than women, [15] we see that the burden of care often falls onto women.

Chronic illnesses permeate all aspects of a family's life [18]. The dysfunctions caused by these illnesses, aren't limited to the patient, but affect the partner, the couple's dynamic, as well as having a considerable impact on the satisfaction levels in the relationship [19]. Symptoms of an illness can indirectly impair relationship quality, eliciting partner anger and frustration, reducing relational satisfaction and increasing distress felt [20]. According to marital quality theory, [21] the level of individual distress experienced by one member of a couple impacts marital satisfaction. The more severe the symptoms, the greater the marital distress experienced. Behavioural and personality changes from the patient, overpower emotional bonds between the caregiver and the patient, [22] which may reduce caregiver's feeling of efficiency in the caregiving situation, and leave spouses feeling emotionally detached from their afflicted partner [23]. 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 [24-26].

Wives' caring for spouses reported more depressive symptoms, but depressive symptoms were lower for couples with higher marital satisfaction [27]. The level of impairment caused by the illness, is also very important [28,29]. Higher the impairment, greater the burden, and thus lower the relationship satisfaction. Psychological distress too, was related to the relationship satisfaction in the care-taker, with depression contributing to lower levels of marital satisfaction [30-33]. Couples who exhibit marital difficulties, have high rates of psychological disorders, particularly depression among Wives' [34,35]. Men and women in satisfying marriages appear to be at lower risk for psychiatric disorders [36]. Depression has been linked to marital dissatisfaction, [37] and also reduction in the efficacy of treatment [38,39].

Rising numbers of chronic illnesses in India, and that they are observed more frequently in males, all point 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 these 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'.

2. Sample

The sample consisted of 35 women, whose husbands were diagnosed with a chronic illness in one of the three categories: Coronary Heart Disease (CHD); Diabetes; or Cancer. The sample for the current paper, is part of a lager study that was approved by the ethical board at

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
1. Marriage Duration[a]	35	14.71	10.91	1								
2. Number of Children	35	1.23	.94	.633**	1							
3. SP Marital Satisfaction[b]	35	52.11	23.73	.166	.440**	1						
4. SP Sexual Satisfaction[b]	35	51.60	20.85	.269	.408**	.647**	1					
5. SP Depression	35	17.49	11.50	-.179	.065	.386*	.081	1				
6. SP Anxiety	35	18.23	11.18	.163	.397**	.232	.162	.399**	1			
7. SP Stress	35	23.23	11.18	.168	.274	.250	.260	.705**	.635**	1		
8. PT Number of Comorbidities	35	1.66	.68	.266	.308*	.093	.271	-.120	-.074	.049	1	
9. Duration of Caregiving[a]	35	8.11	4.72	.441**	.305*	.111	.236	-.158	-.047	.085	.641**	1

Note. PT = Patients and SP = Spouses/Wives'.

a. Variables are measured in years.

b. Higher score on the variables indicate lower satisfaction.

*$p < .05$ (1-tailed), **$p < .01$ (1-tailed).

the Savitribai Phule Pune University. The sample was a purposive sample drawn from volunteer patients, as well as references from patients, based upon ethical guidelines that were set up for the study. Informed consent was taken from all participants.

Table 1 shows the descriptive statistics of the sample. The *mean* age of the sample was 40.2 years (SD = 9.27); Duration of marriage was 14.71 years (SD = 10.91). Total years of caregiving *mean* 8.11 years (SD = 4.72).

3. Tools

Three standardized questionnaires were used for this study coupled with a brief socio-demographic 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 two-hour 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 Index of Marital Satisfaction. 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, 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 four-point scale.

The three scales are moderately inter-correlated with typical r_s ranging between 0.5 - 0.7. The internal consistency, Cronbach's α for the DASS is 0.96 for the depression scale, 0.89 for the anxiety scale and 0.93 for the stress scale. The reliabilities (internal consistencies) of the DASS-21 range between .93 to .82.

4. Results

A correlational and predictive analysis was conducted on the data. The results of the study found that the mean scores on the Index of Marital Satisfaction (IMS) and Index of Sexual Satisfaction (ISS) were 52.11 (*SD* = 23.73) and 51.06 (*SD* = 20.85) respectively. Indicating clinically significant marital and sexual dissatisfaction

Table 2. Multiple Linear Regression (Stepwise) for Marital Satisfaction.

Model	Predictors	*R*	R^2	Adjusted R^2	β	*F*
1	SP Sexual Satisfaction	.647	.419	.401	.647	23.805***
2	SP Sexual Satisfaction & SP Depression	.729	.531	.502	.620[a], .336[b]	18.124***

Note. SP = Spouses/Wives'. $N = 35$, β = Standardized coefficient Beta.
a. β for SP Sexual Satisfaction.
b. β for SP Depression.
Dependent variable = Marital Satisfaction.
***$p < .001$

(Table 1).

On the DASS-21 (Table 1), scores on the Depression subscale, 17.49 (*SD* = 11.50) indicate a Moderate level of depression. On the Anxiety subscale, *mean* scores of 18.23 (*SD* = 11.18) are indicative of a Severe level of anxiety. *Mean* scores on the Stress subscale of 23.23 (*SD* = 11.18) were indicative of a Moderate level of stress in the sample.

Correlations

Pearson correlation was also conducted on the variables (Table 1). Significant positive correlations were found between number of children and IMS, $r = .440$; $p < .01$, indicating that the greater the number of children the more the dissatisfaction in the marital relationships. Significant positive correlations were also found between Number of children and ISS, $r = .408$; $p < .01$, indicating greater dissatisfaction with sexual relations as the number of children increase. Anxiety was also significantly and positively correlated with number of children; $r = .397$; $p < .01$, indicating greater anxiety scores with an increase in the number of children.

IMS and ISS were also significantly positively correlated to each other, $r = .647$; $p < .01$, indicating an increase in scores on one construct increases the scores on the other. Higher scores on the *IMS* and *ISS* indicate poor satisfaction. IMS and Depression were also significantly positively correlated; $r = .386$; $p < .05$.

Insignificant, though very weak positive correlations were also found between, duration of marriage and ISS, $r = .269$; $p = .059$; indicating that there is a relationship between ISS and an increase in the number of years of marriage. Another insignificant and very weak positive correlation was between number of children and stress, $r = .274$; $p = .056$. IMS and Anxiety ($r = .232$; $p = .09$) and IMS and Stress ($r = .250$; $p = .074$) were also found to be positively, but insignificantly correlated, indicating increasing anxiety and stress levels as levels of marital dissatisfaction increased. Similar very weak positive correlations were also found with *ISS* and S*tress* ($r = .260$; $p = .066$); *ISS* and Patients number of comorbidities ($r = .271$; $p = .057$); and *ISS* and number of years of caregiving ($r = .236$; $p = .086$).

Regression Analysis

A multiple linear regression (Stepwise) was calculated to predict IMS based on ISS and depression (Table 2). A significant regression equation was found (F (2,32) = 18.124, $p < .000$), with an R^2 of .531. Participants' predicted IMS is equal to 3.575 + .706 (ISS) + .693 (Depression). Participants IMS score increased by .706 for each 1 unit increase of ISS score and .693 for each unit increase in depression score. Both ISS and depression were significant predictors of IMS, Adjusted $R^2 = .502$, indicating that more than half of the variance in marital dissatisfaction is attributed to sexual dissatisfaction and depression. Taken by itself, depression accounted for about 10.1% of variance in the IMS.

5. 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 [18] had said "The chronic illness of one family member permeates every aspect of family life". Porto [19] also mused, that chronic illnesses are stressful for both patients and spouses. Studies have also found support for an increase in psychological distress with Wives' of patients with chronic illnesses [8] and also greater tendencies to worry and to ruminate [6]. The roles and responsibilities held by women too tend to add stress. 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 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 52.11 (*SD* = 23.73) and 51.06 (*SD* = 20.85) respectively, indicative of clinically significant dissatisfaction in both the marital and sexual spheres. Fitzpatrick & Vacha-Haase [29], found that higher levels of caregiver perceived burden resulted in lower levels of marital satisfaction. Caregiving over time may become overwhelming and reduce the feelings of contentment and fulfilment in the relationship. Caring for a spouse, would also have a fair share of upsetting caregiving experiences, which would precipitate negative feelings, making it harder to find happiness in the relationship. Changes in patient's personality and behaviour, overpower emotional bonds between the caregiver and the patient [22]. Thus, effectively decreasing the overall satisfaction levels of the relationship. A dyadic relationship between marital and sexual satisfaction has also been observed, where lower scores in one partner, usually showed lower scores for the other partner as well [40]. The results of a decrease in satisfaction in both the marital and sexual sphere are also reported by Sampson et al, [41] and Kiecolt-Glaser & Newton [42]. This study too, found a strong positive correlation between the scores on the Marital and sexual satisfaction indexes ($r = .647$; $p < .01$), 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, and consequently, on the over-all quality of life [40-44]. In general, sexual satisfaction is associated with marital satisfaction [45-47] further indicating that the results are in agreement with literature available.

The significant positive correlations between number of children and *IMS* (r = .440; p <.01), and between number of children and *ISS* (r = .408; p < .01), could be explained by Pinquart & Sörensen, [7] who reported that women caregivers, encountered greater stressors relating to roles and responsibilities of caregiving. They also went on to explain that most women didn't have a say in caregiving and that the caregiving role was usually thrust upon them. Factors other than caregiving too, have an impact on women's health [8]. The gender-role socialization framework, [5] the gender-role expectation framework, [3] and in theories of labour marked segregation, [4] all suggest that women put in more hours of care than men. Child bearing and care giving is another role that is usually thrust upon a woman. 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.

The positive correlation between anxiety and number of children (r = .397; p < .01) could also be explained by the roles and responsibilities that women tend to have [3-5]. Other factors that may not be related to caregiving, but may be responsibilities and or roles that could be expected out of women too add a significant amount of strain and stress [8].

An interesting finding is the significant positive correlation between IMS and Depression (r = .386; p < .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., [31] Whisman & Uebelacker, [32] found that, over time, marital discord predicts increases in depressive symptoms. Min et al., [27] also found similar results, where lower depressive symptomatology were found in couples who had greater marital satisfaction. Hafstrom, & Schram, [48] also found significantly lower marital satisfaction scores for Wives' with chronically ill husbands. As emotional bonds wear away, spouses may feel detached from their partners [23]. This combined with higher levels of perceived caregiver burden, reduced contentment feelings in the relationship, upsetting caregiving experiences, [7,29] reduced time for oneself and leisure activities, and feelings of isolation due to caretaking responsibilities, [49] greater stress and fewer social resources [10] could all contribute to increased feelings of depression in the relationship.

The regression analysis conducted found that *ISS* was accounted for 40.1% of variance in *IMS* scores. This finding is further substantiated by research which suggests a close relationship between marital and sexual satisfaction [40-42,45,46]. These researches also point to the interaction between the two constructs and found that there was significant interaction between the two.

Further, it was also seen that *ISS* and depression together, accounted for about 50.2% of variance in *IMS* scores. Taken by itself, depression accounted for about 10.1% of variance in the *IMS*. Depression and lower levels of psychological well-being, are frequently related to marital dissatisfaction, and relationship discord in available literature [8,31-35,37]. For women caregivers, perceived burdens of caregiving, [29] and reduction in the emotional bonds felt, due to care-giving experiences, [22] would also add to the observed trends. These findings can further be explained with the use of the gender-role socialization framework, [5] the gender-role expectation framework, [3] and theories of labour marked segregation and household labour [3,4]. Women, be it caregivers, or just in general, do tend to face more stress than males. The roles, responsibilities as well as societal expectations placed on women caregivers, as well as women in general, takes a toll on their physical and emotional as well as psychological health. They also tend to face higher levels of caregiving stress, have fewer social resources, and lower levels of psychological and physical health.

6. Conclusions

Female partners and caregivers, tend to be affected by the partner's chronic illness status [8,9,50]. The roles and responsibilities ascribed to women, gender roles and socialization, make it harder for women to cope with the additional responsibility [3-5]. Invisible factors, like expectations put on women caregivers, add to the feelings of stress and strain [2,9].

These tend to affect the emotional and psychological health of care givers, as seen by the he 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.

Data Availability Statement

Due to the nature of this research, participants of this study did not agree for their data to be shared publicly, so supporting data is not available.

References

[1] Pinquart, M., Sorensen, S., 2001 Jul 1. Gender Differences in Self-Concept and Psychological Well-Be-

ing in Old Age: A Meta-Analysis. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 56(4), 195-213.

[2] Davis, M.C., Matthews, K.A., Twamley, E.W., 1999 Mar. Is life more difficult on mars or venus? A meta-analytic review of sex differences in major and minor life events. Annals of Behavioral Medicine. 21(1), 83-97.

[3] Barusch, A.S., Spaid, W.M., 1989 Oct 1. Gender Differences in Caregiving: Why Do Wives Report Greater Burden? The Gerontologist. 29(5), 667-76.

[4] Ross, C.E., 1987 Mar. The Division of Labor at Home. Social Forces. 65(3), 816.

[5] Gilligan, C., 1982. In a different voice: psychological theory and women's development. Cambridge; London: Harvard University Press.

[6] Stenberg, U., Ruland, C.M., Miaskowski, C., 2009 Dec 14. Review of the literature on the effects of caring for a patient with cancer. Psycho-Oncology. 19(10), 1013-25.

[7] Pinquart, M., Sorensen, S., 2006 Jan 1. Gender Differences in Caregiver Stressors, Social Resources, and Health: An Updated Meta-Analysis. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 61(1), P33-45.

[8] Vitaliano, P.P., Zhang, J., Scanlan, J.M., 2003. Is Caregiving Hazardous to One's Physical Health? A Meta-Analysis. Psychological Bulletin. 129(6), 946-72.

[9] Pinquart, M., Sörensen, S., 2003. Differences between caregivers and noncaregivers in psychological health and physical health: A meta-analysis. Psychology and Aging. 18(2), 250-67.

[10] Pearlin, L.I., Mullan, J.T., Semple, S.J., Skaff, M.M., 1990 Oct 1. Caregiving and the Stress Process: An Overview of Concepts and Their Measures. The Gerontologist. 30(5), 583-94.

[11] Mohan, S., Reddy, S., 2014. Chronic diseases in India: Burden and implications. [Internet]. cgd.swissre.com. [cited 2016 Sep 23]. Available from: http://cgd.swissre.com/risk_dialogue_magazine/Cardiovascular_risks_in_HGM/Chronic_Diseases_in_India_Burden_and_Implications.html.

[12] Patel, V., Chatterji, S., Chisholm, D., Ebrahim, S., Gopalakrishna, G., Mathers, C., et al., 2011. Chronic diseases and injuries in India. The Lancet. 377(9763), 413-28.

[13] Mohan, S., Reddy, K.S., Prabhakaran, D., 2011. Chronic non-communicable diseases in India: reversing the tide [Internet]. www.indiaenvironmentportal.org.in. Public Health Foundation of India; [cited 2017 Sep 16]. Available from: http://www.indiaenvironmentportal.org.in/content/342456/chronic-non-communicable-diseases-in-india-reversing-the-tide/.

[14] World Health Organization, 2005. WHO Library Cataloguing-in-Publication Data [Internet]. [cited 2017 Mar 7]. Available from: http://www.who.int/chp/chronic_disease_report/full_report.pdf.

[15] World Health Organization, 2018. Noncommunicable diseases country profiles 2018. [cited 2016 Sep 16]; Available from: https://apps.who.int/iris/handle/10665/274512.

[16] Noncommunicable Diseases Country Profiles 2014 [Internet]. World Health Organization; 2014 [cited 2015 Jun 12]. Available from: http://apps.who.int/iris/bitstream/10665/128038/1/.

[17] Riley, L., Cowan, M. Noncommunicable Diseases Country Profiles 2014 [Internet]. World Health Organization; [cited 2015 Jun 12]. Available from: http://apps.who.int/iris/bitstream/10665/128038/1/.

[18] Revenson, T.A., 1994. Social support and marital coping with chronic illness. Annals of Behavioral Medicine. 16(2), 122-30.

[19] Porto, R., 2013 Jul. The impact of premature ejaculation on quality of life of the patient, the partner and the couple. Sexologies. 22(3), e65-70.

[20] Koran, L.M., 2000. Quality of life in obsessive-compulsive disorder. Sexologies. 22(3), 509-17.

[21] Lewis, R.A., Spanier, G.B., 1979. Theorizing about the quality and stability of marriage. Contemporary theories about the family: research-based theories/ edited by Wesley R Burr[et al]. 268-94.

[22] Cohen, D., Eisdorfer, C., 2002. The loss of self: a family resource for the care of Alzheimer's disease and related disorders. New York: W.W. Norton & Co.

[23] Townsend, A.L., Franks, M.M., 1997 Jan. Quality of the Relationship between Elderly Spouses: Influence on Spouse Caregivers' Subjective Effectiveness. Family Relations. 46(1), 33-9.

[24] Thoman-Touet, S.K., 1992. A qualitative study of the effect of chronic illness on marital quality [PhD Thesis]. Iowa State University. Available from: https://lib.dr.iastate.edu/rtd/10156/.

[25] Pruchno, R.A., Potashnik, S.L., 1989 Aug. Caregiving Spouses Physical and Mental Health in Perspective. Journal of the American Geriatrics Society. 37(8), 697-705.

[26] Sheehan, N.W., Nuttall, P., 1988 Jan. Conflict, Emotion, and Personal Strain among Family Caregivers. Family Relations. 37(1), 92-8.

[27] Min, J., Yorgason, J.B., Fast, J., Chudyk, A. The Impact of Spouse's Illness on Depressive Symptoms: The Roles of Spousal Caregiving and Marital Satisfaction. The Journals of Gerontology Series B, Psychological Sciences and Social Sciences [Internet]. 2020 Aug 13 [cited 2021 Jan 17];75(7):1548-

57. Available from: https://pubmed.ncbi.nlm.nih.gov/30869140/#:~:text=Spousal%20caregiving%20and%20marital%20satisfaction%20were%20significant%20moderators%3A%20Wives%20caring.

[28] Zhou, E.S., Kim, Y., Rasheed, M., Benedict, C., Bustillo, N.E., Soloway, M., et al., 2010 Oct 5. Marital satisfaction of advanced prostate cancer survivors and their spousal caregivers: the dyadic effects of physical and mental health. Psycho-Oncology. 20(12), 1353-7.

[29] Fitzpatrick, K.E., Vacha-Haase, T., 2010 May 28. Marital Satisfaction and Resilience in Caregivers of Spouses with Dementia. Clinical Gerontologist. 33(3), 165-80.

[30] Akbari, F., Dehghani, M., 2017. Pain in the context of family: A study on factors contributing to marital satisfaction among couples suffering from chronic pain. Iranian journal of public health. 46(7), 946.

[31] Beach, S.R.H., Katz, J., Kim, S., Brody, G.H., 2003 Jun. Prospective Effects of Marital Satisfaction on Depressive Symptoms in Established Marriages: A Dyadic Model. Journal of Social and Personal Relationships. 20(3), 355-71.

[32] Whisman, M.A., Uebelacker, L.A., 2009. Prospective associations between marital discord and depressive symptoms in middle-aged and older adults. Psychology and Aging. 24(1), 184-9.

[33] Davila, J., Bradbury, T.N., Cohan, C.L., Tochluk, S., 1997. Marital functioning and depressive symptoms: Evidence for a stress generation model. Journal of Personality and Social Psychology. 73(4), 849-61.

[34] Beach, S.R.H., Arias, I., O'Leary, K.D., 1986 Dec. The relationship of marital satisfaction and social support to depressive symptomatology. Journal of Psychopathology and Behavioral Assessment. 8(4), 305-16.

[35] Beach, S.R.H., O'Leary, K.D., 1986 Jan. The treatment of depression occurring in the context of marital discord. Behavior Therapy. 17(1), 43-9.

[36] Weissman, M.M., 1987 Apr. Advances in psychiatric epidemiology: rates and risks for major depression. American Journal of Public Health. 77(4), 445-51.

[37] Beach, S.R.H., Sandeen, E., O'leary, K.D., Barlow, D.H., 1990. Depression in marriage : a model for etiology and treatment. New York: Guilford Press.

[38] Foa, E., Grayson, J., Steketee, G., 1982. Depression, habituation and treatment outcome in obsessive-compulsives. In: Boulougouris J, editor. Practical applications of learning theories in psychiatry. New York: Wiley.

[39] Foa, E., Grayson, J., Steketee, G., Doppelt, H., 1983. Treatment of obsessive-compulsives: When do we fall? In: Foa E, Emmelkamp P, editors. Failures in Behavior therapy. New York: Wiley.

[40] Tuinman, M.A., Fleer, J., Sleijfer, D., Hoekstra, H., Hoekstra-Weebers, J., 2005 Jan 20. Marital and sexual satisfaction in testicular cancer survivors and their spouses. Supportive Care in Cancer. 13(7), 540-8.

[41] Sampson, R.J., Laub, J.H., Wimer, C., 2006 Aug. Does Marriage Reduce crime? a Counterfactual Approach to Within-individual Causal Effects. Criminology. 44(3), 465-508.

[42] Kiecolt-Glaser, J.K., Newton, T.L., 2001. Marriage and health: His and hers. Psychological Bulletin. 127(4), 472-503.

[43] Couper, J., Bloch, S., Love, A., Macvean, M., Duchesne, G.M., Kissane, D., 2006. Psychosocial adjustment of female partners of men with prostate cancer: a review of the literature. Psycho-Oncology. 15(11), 937-53.

[44] Weihs, K., Enright, T., Howe, G., Simmens, S.J., 1999 Jul 29. Marital Satisfaction and Emotional Adjustment After Breast Cancer. Journal of Psychosocial Oncology. 17(1), 33-49.

[45] Haavio-Mannila, E., Kontula, O., 1997. Correlates of increased sexual satisfaction. Archives of sexual behavior. 26(4), 399-419.

[46] Lawrance, K., Byers, E., 1995 Dec. Sexual satisfaction in long-term heterosexual relationships: The interpersonal exchange model of sexual satisfaction. Personal Relationships. 2(4), 267-85.

[47] Edwards, J., Booth, A., 1994. Sexuality, marriage, and well-being: The middle years. In: Rossi A, editor. Sexuality across the life course. Chicago: University of Chicage Press.

[48] Hafstrom, J.L., Schram, V.R., 1984 Jan. Chronic Illness in Couples: Selected Characteristics, including Wife's Satisfaction with and Perception of Marital Relationships. Family Relations. 33(1), 195.

[49] Eriksson, E., Wejåker, M., Danhard, A., Nilsson, A., Kristofferzon, M.L., 2019 Apr 23. Living with a spouse with chronic illness - the challenge of balancing demands and resources. BMC Public Health. 19(1).

[50] Schulz, R., Sherwood, P.R., 2008 Sep. Physical and Mental Health Effects of Family Caregiving. Journal of Social Work Education. 44(3), 105-13.