

Determining the factors influencing the intimate relationship between sexual satisfaction and dyadic adjustment in postmenopausal women

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Abstract

Introduction: Identifying and characterizing sexual dysfunction is crucial in order to improve the quality of the marital relationship in postmenopausal women. Regarding this, the present study aimed to determine the association of menopausal characteristics with sexual satisfaction and marital adjustment.

Material and methods: This cross-sectional study was conducted on 89 postmenopausal women chosen using an improbable randomized sampling method. A questionnaire that collects demographic characteristics, the Dyadic Adjustment Scale (DAS) and The Golombok Rust Inventory of Sexual Satisfaction (GRISS) index were used to collect relevant data during the survey.

Results: The mean age of postmenopausal women recruited to the present study was 54.6 ± 6.7 . The overall mean GRISS score and DAS score were 5.6 ± 1.7 and 92.1 ± 11.2 respectively. The mean GRISS scores were found to significantly increase as the ages of the women increased ($p = 0.044$). Mean DAS scores were lower in postmenopausal women that have menopause duration longer than 10 years ($p = 0.035$). Higher education level of the spouse is associated with lower GRISS scores ($p = 0.024$). No correlation was observed between marital adjustment and sexual satisfaction.

Conclusions: Although sexual satisfaction and marital adjustment levels are decreased in the postmenopausal period, these two parameters do not seem to be related to each other. Multidimensional factors must be taken into account when evaluating sexual and marital satisfaction in postmenopausal women.

Key words: menopause, sexual satisfaction, marital adjustment.

Introduction

The menopause is considered a normal part of aging in which psychological alterations are experienced along with physical and anatomical changes [1]. A variety of factors can be affected by menopause, but among them sexual functions are demonstrated to be influenced the most. However, in the postmenopausal period sexual functions could also be affected, through distinct bio-psychosocial variables such as cultural patterns, religion, menopause duration, personal characteristics, self-esteem, marriage status, feelings and spouse relationship [2-4]. Therefore, evaluation of sexual function in the postmenopausal period is difficult and needs proper understanding and practice to be effective.

Sexual satisfaction is defined as emotional responses to sexual interactions and covers a multidimensional experience involving thoughts, beliefs, and personal and socio-cultural attitudes [5]. Observational and experimental studies have provided increasing evidence that sexual satisfaction is positively related to overall relationship satisfaction [6]. Moreover, lower levels of

sexual satisfaction in a marriage are closely related to subsequent relationship dissolution [7]. In this context, sexual satisfaction in a marriage is fundamental in an intimate relationship and can even be a breaking point for most couples [8]. For this reason, it is of great importance to determine the factors related to sexual satisfaction in order to help couples build and maintain a healthy relationships.

Marital adjustment is one of the most widely used and confused concepts in marriage and is associated with both psychological well-being and physical functioning [9]. Furthermore, marital adjustment gives couples both physiologic and sexual satisfaction. In this context, revealing the factors which influence marital adjustment in postmenopausal women is of great importance. This is because psychosocial and hormonal alterations in the postmenopausal period cause problems not only for postmenopausal women but also for her spouse and family [10]. Moreover, these menopausal changes also affect women's social and sexual life with an adverse effect on interfamily interactions [11]. In a study by Sis *et al.* [12] it was proposed that marital adjustment levels were decreased in line with the in-

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crease in menopausal symptoms suffered by women. Although in this period the marriage partner can be accepted as a significant support, sexual dissatisfaction between couples can harm the sexual related quality of life in both individuals, and assistance from a health care professional may be needed.

There is only limited number of studies performed in Turkey that explore the role of distinct factors affecting sexual satisfaction and marital adjustment in postmenopausal women. Unfortunately, these studies have major deficiencies in generalizability, study design and poor methodology.

The purpose of the present study is to analyze the factors that affect sexual satisfaction and marital adjustment in postmenopausal women.

Material and methods

Characteristics of patients

This prospective case control study was conducted on the menopausal women referred to the gynecology and obstetrics clinics of Canakkale Onsekiz Mart University (COMU) for routine menopausal screening. The study was approved by COMU Clinical Trials Ethical Committee (2016-08). The study was conducted with the guideline proposed by the World Medical Association of Helsinki and written informed consent was obtained from all of the participating women. Menopausal state is defined as the time when there have been no menstrual periods for 12 consecutive months and no other biological or physiological cause can be identified.

For this study, 115 questionnaires were distributed to menopausal women. However, questionnaires were excluded because subjects did not include enough details, refused to answer sexual questions, reported having chronic vaginal infections or were not eligible for inclusion. The final study group comprised 89 menopausal women followed up in the obstetrics and gynecology clinic of the same hospital.

Inclusion criteria for the present study were determined as women with an alive and living together husband, no history of hysterectomy, oophorectomy, cystocele, rectocele, or mastectomy, no addiction, and no recent consumption of psychiatric drugs.

Assessment

The data were collected between August 2016 and April 2017 using a demographic form, the Dyadic Adjustment Scale (DAS) and the Golombok Rust Inventory of Sexual Satisfaction (GRISS). The pertinent demographic data of the women in the study, including age, menopause duration, employment and education status, place of settlement, smoking history, spouse's education and employment status, were recorded.

Dyadic Adjustment Scale (DAS)

The DAS was developed by Spanier [13] in order to assess the quality of a marriage and marital adaptation. It comprises 32 questions and is grouped into four dimensions (dyadic satisfaction, dyadic cohesion, dyadic consensus and affectional expression). The total score ranges from 0 to 151, which are derived by summing the scores on each of the four subscales, reflecting overall marital satisfaction and adjustment. Turkish validation and reliability studies of the DAS were done by Fişiloğlu and Demir [14] in 2000.

The Golombok Rust Inventory of Sexual Satisfaction (GRISS)

The severity of sexual problems and quality of sexual life in postmenopausal women were evaluated using the GRISS scale. It was developed by Rust and Golombok in 1986 [15]. The main reason for choosing the GRISS scale in this study as a measure of sexual dysfunction was because it covers the most frequently occurring sexual dysfunctions of heterosexual individuals with a steady partner according to the following 7 subscales: anorgasmia, vaginismus, non-communication, non-sensuality, avoidance, infrequency and dissatisfaction. Moreover, the GRISS scale has a standardized nature with easy administration and scoring. Its Turkish validity and reliability studies were successfully demonstrated by Tugrul *et al.* [16]. The GRISS scale has 28 items on a single sheet and scores are summed to give a total raw score ranging from 28 to 140. All these questions are answered on a 5-point scale (always, usually, sometimes, hardly ever, never). The scores of the total and subscales of GRISS range from 1 to 9, with scores of 1-4 indicating normal sexual function and scores of 5-9 indicating increasing degrees of sexual dysfunction.

Statistical analysis

Statistical Package for Social Sciences (Version 20, SPSS Inc., Chicago, IL, USA) for Windows was used to analyze the data. Continuous variables were tested for normality with the Kolmogorov-Smirnov test. For normally distributed data Student's *t* test was performed. The data that were non-normally distributed were evaluated using the Mann-Whitney *U* test. Comparison of more than two independent groups was done by the Kruskal-Wallis test. Spearman correlation analysis was used to analyze the correlation between the DAS and GRISS index. A *p* value < 0.005 was used to indicate statistical significance.

Results

The mean age of postmenopausal women recruited to the present study was 54.6 ±6.7. The overall GRISS score and DAS score were 5.6 ±1.7 and 92.1 ±11.2 re-

spectively (Table 1). According to ages, postmenopausal women were divided into three groups (< 50, 51-60, > 60). The mean GRISS scores were found to significantly increase as the ages of the women increased ($p = 0.044$). Mean DAS scores were lower in postmenopausal women that had menopause duration longer than 10 years ($p = 0.035$). Higher education level of the spouse is associated with lower GRISS scores ($p = 0.024$). Apart from these characteristics no significant association was observed between other variables and mean GRISS and DAS scores (Table 2).

According to GRISS scores postmenopausal women were divided into two groups. Women with scores < 5 were considered as having normal sexual function and those with scores > 5 were considered as having sexual dysfunction. Mean DAS scores of GRISS subscales were

Table 1. Mean Golombok Rust Inventory of Sexual Satisfaction (GRISS) subscale and Dyadic Adjustment Scale (DAS) scores of postmenopausal women

	Mean	SD
DAS score	92.1	11.2
GRISS subscales		
Infrequency	5.6	2.1
Non-communication	5.1	1.1
Non-sensuality	6.4	1.5
Dissatisfaction	4.2	1.2
Vaginismus	5.1	1.6
Anorgasmia	4.1	0.7
Avoidance	5.0	1.9
Overall	5.6	1.7

Table 2. Characteristics of study participants and comparison of Golombok Rust Inventory of Sexual Satisfaction (GRISS) scale and Dyadic Adjustment Scale (DAS) score based on descriptive characteristics

Characteristics	n	%	GRISS total Mean ± SD	p	DAS total Mean ± SD	p
Age (years)						
≤ 50	25	28.1	5.1 ± 1.9	0.044^a	93.3 ± 13.1	0.234
51-60	34	38.2	5.4 ± 1.7		93.9 ± 11.2	
> 60	30	33.7	6.2 ± 1.4		89.1 ± 11.3	
Menopause duration (years)						
≤ 4	36	40.5	5.0 ± 1.8	0.249	93.2 ± 13.3	0.035^b
5-10	24	26.9	6.0 ± 1.8		94.1 ± 12.6	
> 10	29	32.6	5.6 ± 1.7		89.1 ± 8.9	
Employment status						
Employed	35	39.3	5.4 ± 1.7	0.643	93.4 ± 9.5	0.514
Unemployed	35	39.3	5.6 ± 1.9		92.3 ± 14.5	
Retired	19	21.4	5.8 ± 1.5		89.5 ± 10.4	
Education status						
Primary	33	37.1	5.9 ± 1.7	0.139	93.1 ± 17.3	0.643
High School	26	29.2	5.0 ± 1.7		92.8 ± 6.7	
University	30	33.7	5.7 ± 1.7		90.5 ± 7.3	
Place of settlement						
Town	34	38.2	5.6 ± 1.9	0.964	92.2 ± 13.2	0.938
City centre	55	61.8	5.6 ± 1.6		92.1 ± 11.1	
Smoking					92.2 ± 12.7	
Yes	31	34.8	5.7 ± 1.9	0.688	92.0 ± 10.5	0.923
No	58	65.2	5.5 ± 1.6			
Spouse's education level						
Primary	24	26.9	6.3 ± 1.7	0.024^c	93.0 ± 19.3	0.553
High school	19	21.3	4.9 ± 1.7		94.2 ± 8.3	
University	46	51.8	5.0 ± 1.7		90.9 ± 7.3	
Spouse's employment status						
Employed	33	37.0	5.5 ± 1.9	0.217	90.5 ± 9.2	0.302
Unemployed	10	11.2	4.8 ± 0.6		89.1 ± 4.6	
Retired	46	51.8	5.8 ± 1.8		94.0 ± 14.3	

^aAge ≤ 50 vs. 51-60 vs. > 60 years; ^bMenopause duration ≤ 4 and 5-10 vs. > 10 years; ^cPrimary vs. high school and university

Table 3. Mean Dyadic Adjustment Scale (DAS) scores according to sexual satisfaction scores (Golombok Rust Inventory of Sexual Satisfaction [GRISS] score < 5 indicates normal sexual function; score > 5 indicates sexual dysfunction)

GRISS subscales	DAS	
	Mean	SD
Infrequency		
< 5 (n = 30)	89.7	10.9
≥ 5 (n = 59)	93.4	12.2
<i>p</i>	0.164	
Non-communication		
< 5 (n = 29)	92.0	13.5
≥ 5 (n = 60)	92.2	11.1
<i>p</i>	0.927	
Non-sensuality		
< 5 (n = 17)	91.1	15.0
≥ 5 (n = 72)	92.4	11.1
<i>p</i>	0.672	
Dissatisfaction		
< 5 (n = 56)	91.2	13.1
≥ 5 (n = 53)	93.8	9.5
<i>p</i>	0.319	
Vaginismus		
< 5 (n = 28)	91.6	12.3
≥ 5 (n = 61)	92.4	11.8
<i>p</i>	0.765	
Anorgasmia		
< 5 (n = 61)	91.6	9.8
≥ 5 (n = 28)	93.2	15.8
<i>p</i>	0.552	
Avoidance		
< 5 (n = 30)	89.8	11.6
≥ 5 (n = 59)	93.3	11.9
<i>p</i>	0.734	
Overall		
< 5 (n = 26)	90.6	13.6
≥ 5 (n = 63)	92.8	11.2
<i>p</i>	0.432	

calculated according to having either normal sexual function or dysfunction. No significant association was observed between GRISS subscales and DAS scores according to sexual function status (Table 3).

The DAS scores of postmenopausal women ranged between 64 and 134. In order to evaluate sexual functions of women with better marital adjustment, the postmenopausal women were divided into two groups (< 93 vs. ≥ 93). Overall GRISS scores of women with a DAS score < 93 was 5.5 ±1.6 and 5.6 ±1.9 for DAS scores

Table 4. Mean Golombok Rust Inventory of Sexual Satisfaction (GRISS) levels according to Dyadic Adjustment Scale (DAS) scores

GRISS subscales	DAS score < 93 (n = 46)		DAS score ≥ 93 (n = 43)		<i>p</i>
	Mean	SD	Mean	SD	
Infrequency	5.5	1.9	5.7	2.2	0.544
Non-communication	4.9	0.9	5.4	1.2	0.525
Non-sensuality	6.7	1.3	6.8	1.0	0.673
Dissatisfaction	4.1	1.1	4.2	1.2	0.795
Vaginismus	4.8	1.5	4.9	1.6	0.715
Anorgasmia	4.2	0.6	4.1	0.8	0.749
Avoidance	4.8	1.9	5.0	2.0	0.568
Overall	5.5	1.6	5.6	1.9	0.763

Table 5. Correlation analysis between Dyadic Adjustment Scale (DAS) and subscales of Golombok Rust Inventory of Sexual Satisfaction (GRISS) index

GRISS subscales	DAS	
	<i>r</i>	<i>p</i>
Infrequency	0.137	0.200
Non-communication	0.139	0.194
Non-sensuality	0.011	0.918
Dissatisfaction	0.151	0.158
Vaginismus	0.053	0.622
Anorgasmia	0.026	0.810
Avoidance	0.128	0.231
Overall	0.128	0.095

> 93 (*p* = 0.763). The other subscales of the GRISS index were also not different between the two groups (Table 4). No significant correlation was observed between DAS score and GRISS subscale scores (Table 5).

Discussion

The menopause affects women not only physically but also mentally, psychologically and socially. For this reason, it is not unusual to see decreased levels of sexual satisfaction and altered marital adjustment in postmenopausal women. Unfortunately, only a limited number of studies have been performed regarding sexual satisfaction and female sexuality in menopausal women. Depending on the countries in which the studies were performed, sexual dysfunction in postmenopausal women is reported to vary from 68% to 86.5% [17, 18]. Moreover, the relatively scarce literature suggests varying approaches, encompasses differing sexual behaviors, and illustrates differences across studies on female sexual function in the postmenopausal period.

The purposes of the current study were to examine sexual and marital satisfaction among postmenopausal women. In this context, by using reliable and validated indexes, we demonstrated that postmenopausal women encounter sexual dissatisfaction and decreased marital adjustment. Correlation analysis showed that both of these indexes are poorly related to each other. Individual assessment of both scores with distinct menopausal parameters demonstrated that only age, menopause duration and spouse's educational status have an effect on sexual satisfaction and marital adjustment. These findings support our original hypothesis that alterations associated with sexual life and marital satisfaction in the postmenopausal period are related to multi-dimensional factors including, age, postmenopausal behaviors, emotional well-being and spouse's education level.

Consistent with expectations, postmenopausal women reported significantly higher levels of sexual dissatisfaction, with a mean GRISS score of 5.6 ± 1.7 . Additionally, except for dissatisfaction (4.2 ± 1.2) and anorgasmia (4.1 ± 0.7), all the subscales items of the GRISS index were found to be higher than 5. Similarly to our findings, in a recent study by Kavlak *et al.* [4] sexual satisfaction scores of postmenopausal women were evaluated. The overall and GRISS subscale scores were found to be over 5 except for the communication score (4.7 ± 2.4), which supported the presence of sexual dissatisfaction in postmenopausal women. Topatan and Yildiz [19] also reported comparable results in their elegant study. All menopausal women irrespective of menopause type (natural or surgical) reported experiencing high rates of sexual relation infrequency problems. Moreover, the problems of nonsensuality, anorgasmia, and sexual satisfaction were found to be more frequent in the natural menopause group than the surgical menopause group. Although our study population only consisted of women with natural menopause, sexual satisfaction of surgical women was not evaluated in the present study.

Here, we also have to note that sexual dissatisfaction that is found in our study could also be related with our country's sociodemographic characteristics. Because of the Turkish Islamic culture, sexual behavior and its perception in women carries several prohibitions and taboos. Moreover, the sexual experience of Turkish women is hampered by the prohibitions related to religion and culture, at least in some of its aspects. This leads Turkish women to be quite passive in sexual and romantic relations and carry out less sexual activity compared with men [20, 21]. This cultural pattern could also explain our finding of the increasing trend of GRISS scores with aging. Being passive in sexual activity, postmenopausal Turkish women encounter increased sexual dissatisfaction with aging mainly due to desire, arousal and orgasm dysfunctions.

Spouse's education level is another factor that affects sexual satisfaction in postmenopausal women. In the present study we demonstrated that higher spouse education levels are associated with lower GRISS scores, suggesting increased levels of sexual satisfaction. Studies conducted to determine the relationship between sexual satisfaction and education demonstrated that men or women with higher education levels express more sexual satisfaction. This finding suggests that increase of individuals' knowledge can change a person's attitude toward sexual activity and sexual satisfaction [22, 23]. But it should be kept in mind that with the rise of the couple's educational status, couples began to have higher expectations for marital adjustment, and if these expectations are not met, couples may be face sexual dissatisfaction.

In this study, we found that menopause duration does not affect sexual functions of postmenopausal women. But marital adjustment scores were found to be decreased while the duration of menopause increased. Poor marital adjustment despite non-altered sexual satisfaction during menopause underscores the importance of contextual factors, particularly the marital relationship, stress, and sociodemographic variables in postmenopausal women. Furthermore, our results also demonstrate that a woman's marital harmony is not only associated with her sexual life. In this context, Sis and Pasinlioglu [12] showed that the level of marital adjustment decreased in line with the increase in menopausal symptoms suffered by women. Moreover, women's age at marriage and total number of pregnancies were found to be significant factors that affect marital adjustment.

The finding of lack of association between marital adjustment and sexual satisfaction suggests that marital conflicts and disruption of the family relationship in the postmenopausal period are not affected by sexual dysfunction. In a recent cross-sectional study by Jafarbegloo *et al.* [24], 80 postmenopausal women were evaluated according to marital satisfaction and sexual dissatisfaction. It was found that marital satisfaction of the postmenopausal women was not affected by sexual dysfunction. The authors suggested that possible factors responsible for the marital conflicts in older women are possibly different from those in younger ones. Similarly, Litzinger and Gordon [25] reported that if couples are successful at communicating constructively, sexual satisfaction fails to contribute to marital satisfaction. Contrary to these reports, Rahmani *et al.* [26] found that sexual satisfaction was significantly related to marital happiness.

Some potential limitations of the present study should be mentioned. First, we only questioned women who were registered in gynecology clinics and gathered marital and sexual information without their spouse's participation. Second, our patient population can be

considered as relatively small; nevertheless, we were able to obtain statistically significant results. And finally it is not easy to clarify the effect of cultural/religious factors on sexual behavior of postmenopausal women.

Conclusions

Menopause is a factor that affects both marital adjustment and sexual satisfaction. Early diagnosis of menopausal symptoms is therefore important to recognize distinct variables affecting marital and sexual satisfaction. Given that both culture and religious tradition in our country limit women from revealing their sexual problems and concerns, increased emphasis must be placed on marital counseling and therapy services.

Disclosure

The authors report no conflict of interest.

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