

ORIGINAL RESEARCH

Medicine Science 2019;8(1):148-53

A study examining women's sexual function in twelve months postpartum**Eda Sahin¹, Ayten Senturk Erenel²**¹*Giresun University Health Science Faculty, Department of Obstetric and Gynecologic Nursing, Giresun, Turkey*²*Gazi University Health Science Faculty, Department of Obstetric and Gynecologic Nursing, Ankara, Turkey*

Received 08 October 2018; Accepted 19 October 2018

Available online 28.12.2018 with doi:10.5455/medscience.2018.07.8953

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Abstract

The postpartum period has physical, psychological, and social effects on women's health, two of which include sexual function and dysfunction. The aim of this study was to identify women's sexual function in twelve months postpartum. This descriptive study was conducted between January and May 2018 at the Well-Child Outpatient Service at Giresun University's Women's Obstetrics and Gynaecology Training and Research Hospital. The sample of the study consisted of all women who applied to the clinic and who met the inclusion criteria. The research population consisted of 236 women with 0 to 12 month-old children. The 'Identification Features Specification Form' and 'Turkish Version of the Sexual Distress Scale-Revised (Tr-FSDS-R)' were used in order to collect data. The Mann Whitney U and Kruskal-Wallis tests, as well as Spearman correlation analysis were used in the analyses because the data did not show any normal distribution features. The age average of the participants was 28.68 ± 5.43 . The mean Tr-FSDS-R score was determined as 7.50 ± 9.45 (min0- max52). SD was found in 24.6% (n:59) of women when the cut point of the scale (>11.5) was taken into consideration. A positive weak correlation was seen between the mean Tr-FSDS-R score of women and the average of marital year points. The mean Tr-FSDS-R score significantly differed depending on the time of sexual intercourse (z: -2.61, p:0.009), the use of contraception (z:-2.20, p:0.028), and current sexual activeness (χ^2 :64.798, p:0.000) (p<0.05). In conclusion, a significant proportion of women experience sexual problems during the postpartum period.

Keywords: Nursing, sexual distress, postpartum period, postpartum sexuality**Introduction**

The World Health Organization (WHO) defines sexual health as a state of physical, mental, and social wellbeing in relation to sexuality [1]. Various elements such as anatomical, physiological, psychological, and socio-cultural factors, as well as educational level, age, illness, and life stages all affect sexuality. Sexual function is influenced by the structure and function of the tissues and organs that play a role in sexual function, mental state; societal customs and traditions, beliefs, values, law pertaining to sexuality, and forms of sexual behaviour [1]. Therefore, apart from affecting sexual function and sexual health, sexual dysfunction is seen as a multidimensional health problem.

Several studies suggest that female sexual function also may be affected factors such as chronic diseases (e.g. diabetes and hypertension), neurological and hormonal imbalances, depression, age, education level, income, body mass index, emotional and social status, socioeconomic and environmental factors,

menopause, general health, family planning (including methods used, information, and attitudes towards sexuality), drugs used, physical, and mental health [2,3].

The postpartum period affects female sexual function. Factors such as hormonal, physical and psychological changes during this period, parenting roles, infant care, breastfeeding, fatigue, insomnia, customs, beliefs, and traditions influence all female sexual function [4,5]. It is also known that the number of children a woman has given birth to, her age, and the number of her births that have been intervened upon (e.g. episiotomy, vacuum, forceps) can negative effect sexual function after birth [6]. The sexual problems women faced during this period primarily relate to sexual drive, arousal, orgasmic disorders, dyspareunia, and vaginismus [7]. Many studies have reported that women receiving episiotomy experience dyspareunia during the postpartum period [6-8].

Upon examining the literature, one observes that studies probing women's health during the postpartum period generally take a look at psychological and physiological issues. Moreover, in Turkey, there is a limited number of studies related to sexual health in relation to women and family health. Sexual life and function are considered taboo in conservative societies, which thus poses a

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hindrance towards health workers, women, and couples access to sexual health care services. Nurses have important responsibilities in the protection and development of health. Hence, nurses ought to provide women with opportunities to express, identify, and resolve their sexual problems, which in turn would better contribute to enhancing women's and families' health and quality of life, as well as in order to achieve occupational satisfaction by providing holistic and professional care. Therefore, it is believed that examine women's sexual function during the postpartum period will contribute to the literature as well as raise awareness about the issue of sexual health in every environment where nursing services are provided.

Aim

The aim of our research was to identify women's sexual function over twelve months postpartum.

Material and Methods

This descriptive study was conducted between January and May 2018 at the Well-Child Outpatient Service at Giresun University's Women's Obstetrics and Gynaecology Training and Research Hospital. The sample of the study consisted of all women who applied to the clinic and who met the inclusion criteria (have children between the ages of 0 to 12 month old children, able to read and write in Turkish and willing to participate in the study) between the dates the study took place. We calculated the sample size using Power and Sample Size Programme. In 2017, the number of women admitted to the outpatient clinic was 1840. We calculated that a sample size of 236 women, within a confidence interval of 90% and a power of 80%. The 'Identification Features Specification Form' and 'Turkish Sexual Distress Scale-Revised' (Tr-FSDS-R) were used in order to collect data.

The 'Identification Features Specification Form' consists of 19 questions related to women's and their spouses' socio-demographic characteristics (e.g. age, place of birth, education level), as well as women's obstetric characteristics and their current sexual lives [2-4,6,7].

The Tr-FSDS-R Scale is a patient-reported outcome measure consisting of 13 items assessing different aspects of sexual activity-related distress in women. It is a self-report scale developed by DeRogatis in the United States [3]. The reliability and validity of the Turkish version of the scale was determined by Kitis (2016) [9]. The intra-class correlation coefficient of the scale was identified as being 0.74, and the Cronbach alpha coefficient determined as being 0.86 [9]. 13 items are scored on a five-point Likert-type scale: never (0), rarely (1), occasionally (2), frequently (3), or always (4). A total score ranging from 0 to 52 can be computed by adding the score of all 13 items. Higher scores indicate higher levels of sexual distress. The score of > 11.5 was proposed as being a cut-off to detect the presence of sexually related personal distress in Turkish women suffering from sexual dysfunction. In our study, the Cronbach alpha value of the scale was found to be 0.92.

Within the frame of this study, the data was collected through face-to-face interviews. Prior to data collection, the researchers introduced themselves and informed women about the research. The women included in the sample were told that the results would only be used in research, that their names would be kept confidential,

and that they were free to stop filling out questionnaires any time. The participants' written consents were obtained. Data collection forms were filled out within 5 to 20 minutes.

The Ethical Dimension of the Study

In order to be able to carry out the research, the approval of Giresun University's ethics committee alongside institutional approval of the hospital where the research was to be conducted were both obtained. Principles of the Declaration of Helsinki were followed at all stages of the study.

Analysis of Data

SPSS 21.0 package software was used for the analysis of the data. Descriptive statistics were presented as numbers, percentages, and mean $\pm$ standard deviation (SD). The Kolmogorov Smirnov test was employed in order to examine whether or not the data distribution was normal. Statistical analysis was performed using Mann Whitney U and Kruskal-Wallis tests as well as using Spearman Correlation Analysis due to the fact that data did not ultimately fit normal distribution. Spearman Correlation Analysis was used to examine the correlation between the mean age of women and their spouses, the age of their babies (months) and the age of marriage.

Kruskal-Wallis test was used to look at the difference between the mean Tr-FSDS-R scores and their educational status, the number of living children, the type of contraceptive method used and the current sexual experience. The Mann Whitney U test was used to look at the difference between the mean Tr-FSDS-R scores and the type of delivery, the method used, the status of breastfeeding, the time of initiation of sexual intercourse, the use of a contraceptive method. Statistical significance level was determined as being $p < 0.05$.

Limitations of the Research

Given that the sample of the research include women applying to the well-child outpatient service of a maternity hospital in Giresun, Turkey, the results obtained are specific to this group and cannot be transposed to the entire Turkish population.

Results

Table 1 presents the socio-demographic characteristics of the participants and their spouses. The average age of the women is 28.68 ± 5.43 , and the average age of their spouses is 33.04 ± 6.16 . The average number of years women have been married is 6.87 ± 6.21 . The birth place of 77.5% of women and 85.2% of their spouses is Giresun, Turkey. 30.9% of the women and 3.9% of their spouses are high school graduates. The number of living children of 39.8% of the women is one 58.9% of participants had cesarean sections during their last delivery; 12.3% of whose children are 4 months old. 93.3% of women re-entered sexual forty day following birth. It has been determined that 77.5% of women use contraception, including the withdrawal method (41.5%). 73.3% of the women are satisfied with the method they used. It was determined that 21.2% of women who use no contraception method what's over stated that they did so because they were breastfeeding their babies. When women's breastfeeding status was evaluated, it was observed that 75.4% of them continued to breastfeed their babies. 14.4% of those who were not breastfeed their child claimed that they lacked milk. When the general health status of women was evaluated, it has been found that 89.8% of the participants have no

chronic disease, and that 92.4% have never undergone any surgical procedure beforehand. When women were asked to compare their current sexual life with that of their prenatal sexual state, 72% of the women had indicated that there was no difference (Table 1).

Table 1. Sociodemographic Characteristics of Women and Their Spouses

X ± SS		
The Average Age- Year		
Womens	28.68±5.43	
Husbands	33.04±6.16	
The Average Marriage- Year	6.87±6.21	
	N	%
Women's Education		
Not literate	3	1.3
Primary school	54	22.9
Middle school	66	28.0
High school	73	30.9
University	40	16.9
Husbands's Education		
Not literate	1	0.4
Primary school	51	21.6
Middle school	49	20.8
High school	87	36.9
University	48	20.3
Number of Living Children		
1	94	39.8
2	82	34.7
3	39	16.5
4 and over	21	9.0
Type of Delivery		
Vaginal	97	41.1
Cesarean	139	58.9
Time to Start Sexual Relationship		
40 days before	16	6.7
After 40 days	220	93.3
Using Contraceptive Methods		
Yes	183	
No	53	
Contraceptive Method Type (n:183)		
Withdrawal	98	41.5
Condom	40	16.9
Tubal ligation	9.3	12.0
Intrauterine device	12	5.1
Pill	10	4.2
Injection	1	0.4
Method Satisfaction (n:183)		
Yes	173	3.3
No	10	4.2
Breastfeeding Situation		
Still breastfeeding	178	75.4
Not breastfeeding	58	24.6
Opinion about Current Sexual Life According to Pregnancy		
There is no difference	170	72.0
Better	15	6.4
Worse	51	21.6

The mean Tr-FSDS-R scores of the women are given in Table 2. The mean Tr-FSDS-R score for women was determined as being 7.50 ± 9.45 (min 0- max 52) (Table 2). Considering that the cut point of the scale was > 11.5 , it was determined that there was sexual function distress in 24.6% of the participants (n: 59)

A weak positive correlation was found between women's Tr-FSDS-R averages and average number of years married, whereby it was determined that as the marriage year increased, the scale point average increased had respectively as well (r: 0.150; p: 0.022). On the other hand, there was no statistically significant correlation

between the average age of the women and their spouses, the age of the infants (months), or the Tr-FSDS-R scores ($p > 0.05$). The mean Tr-FSDS-R scores did not reveal any significant difference according to level of educational of women or their spouses, their number of living children, the type of delivery, the type of contraception method used, the satisfaction with the method used, and the mother's breastfeeding status ($p > 0.05$) (Table 3). The mean Tr-FSDS-R scores were found to differ significantly according to the time of sexual intercourse (z: -2.61, $p: 0.009$), using contraception (z: -2.20, $p: 0.028$), and current sexual activity ($\chi^2: 64.798$, $p: 0.000$) (Table 3).

Table 2. Women's 'Turkish Version of The Female Sexual Distress Scale-Revised (Tr-FSDS-R)' Score Averages

	X $\pm$ SS	Minimum	Maximum
Tr-FSDS-R	7.50 ± 9.45	0	52

Table 3. Examination of Women's Mean Tr-FSDS-R Scores According to Some Characteristics of Them and Their Spouses

	Tr-FSDS-R Score		
	X $\pm$ SS	Z/χ^2	P
Women's Education		χ^2	
Not literate	0.66 ± 1.15		
Primary school	8.05 ± 10.54		
Middle school	6.01 ± 6.78	4.545	0.337
High school	8.61 ± 10.72		
University	7.67 ± 9.38		
Husbands's Education		χ^2	
Not literate	0.00 ± 0.0		
Primary school	7.64 ± 10.77		
Middle school	6.87 ± 8.32	2.409	4.545
High school	7.64 ± 9.69		
University	7.87 ± 8.86		
Number of Living Children		χ^2	
1	6.90 ± 9.52		
2	6.84 ± 7.80		
3	9.38 ± 11.10	1.847	0.605
4 and over	9.23 ± 11.56		
Type of Delivery		Z	
Vaginal	6.40 ± 8.44	-1.424	0.154
Cesarean	8.26 ± 10.05		
Time to Start Sexual Relationship		Z	
40 days before	8.53 ± 9.81		
After 40 days	6.16 ± 8.83	-2.616	0.009
Using Contraceptive Methods		Z	
Ye	8.06 ± 9.76		
No	5.54 ± 8.07	-2.20	0.028
Contraceptive Method Type (n:183)		χ^2	
Withdrawal	7.01 ± 8.76		
Condom	8.45 ± 9.12		
Tubal ligation	12.45 ± 14.53		
Intrauterine device	6.83 ± 7.35	2.159	0.827
Pill	8.30 ± 10.75		
Injection	12.00 ± 0		
Method Satisfaction (n:183)		Z	
Yes	8.21 ± 10.03		
No	6.60 ± 6.07	-0.006	0.995
Breastfeeding Situation		Z	
Still breastfeeding	7.30 ± 9.42		
Not breastfeeding	8.10 ± 9.61	-0.824	0.410
Opinion about Current Sexual Life According to Pregnancy			
There is no difference	4.59 ± 6.01		
Better	5.20 ± 8.86	64.798	0.00
Worse	17.86 ± 11.65		

Discussion

Pregnancy and childbirth indicate an important period within a woman's life. Hormonal, bodily, and social changes in this process often affect her physical well-being, mood, relationship, and sexual health. In this study, it was determined that roughly one quarter of the women (24.6%) suffered from sexual dysfunction according to their scale scores. Moreover, most of the women stated that their sexual lives were adversely affected in the postpartum period, and the scale scores of those who stated that they were adversely affected were significantly higher than others. In line with our study, Pauls (2008) also found that during the first 6 months of the postpartum period, there was a decrease in women's sexual drive, arousal, lubrication, and orgasm [10]. A study by Trutnovsky (2006) revealed that sexual function decreased in the first year following delivery [11]. The results of a study by Barret (2000) including 796 primiparas concluded that 62% of women experienced sexual pain in the first three months after delivery, and that this rate decreased to 31% at the sixth month [12]. A study conducted by Sahin (2009) revealed that the average postpartum sexual satisfaction scores and total sexual satisfaction scores of women were significantly lower than the prenatal period [13]. According to the results, the breastfeeding behaviour, hormonal, physiological, and anatomical changes going on in the female body in postpartum period adversely affect the sexual function due to factors such as parenting role and spousal expectation.

Sociological, physiological, psychological, cultural, and religious factors, alongside age, general health status, communication, interaction, and family relations among spouses also appear to have an effect on sexuality [1,2,7]. In our study, it has been determined that the increase in the number of years married adversely affects sexual function. In the literature, there is no conclusion that evaluates the relationship between sexual function postpartum period and length of marriage. However, in studies evaluating female sexual function, it has been discovered that sexual function is influenced by factors such as age and the number of children a woman has [2,4,6]. In Turkey, being sexually active is generally approved of once women are married, having children after marriage is expected, having more than one child is usually encouraged, and woman is responsible for both child care and housework. Therefore, the reason behind the increase in the sexual function being parallel with increase of length of marriage in our study may be related to the increase in the number of children a woman has in direct proportion to the years she has been married, her ever growing traditional motherhood role, the responsibilities expected from women, and the communication and domestic problems stemming from a lack of spousal support.

Although the time to start sexual activity after birth differs socially, the general view is that the mental and physical recovery of women who have gave birth will last for 6 weeks. The lochia going on during this period may cause difficulty with sexual intercourse; therefore it is appropriate to start sex 40 days after birth. In Turkey, usually starting sexual activity 40 days after birth culturally accepted. Almost all of the women in our study (93.3%) were found to have started sexual activity 40 days after birth. When the time initiation of sexual activity and the mean Tr-FSDS-R scores were compared with one another, it was determined that sexual function was stronger in women who started sexual intercourse

after the 40th day. The 2013 Turkey Demographic and Health Survey (TNSA) also reported that postpartum sexual abstinence period in Turkey was 40 days, and that most couples abstained from sexual intercourse during this period [14]. This result may suggest that conforming with social values has a positive effect on sexual function. In a study conducted in the United States, 56.7% of women in the postpartum period had started sexual intercourse after 6 weeks [15]. Likewise, in a prospective study of women in Australia, 59% of women in the postpartum period started sexual intercourse after 6 weeks [16]. It is also reported that in a number of African countries, the time to start sexual activity is about 11 months later. We believe that these differences stem from different sociocultural values and religious beliefs [17].

Using contraception generally prevent unwanted pregnancies. In studies evaluating the sexual function of the women using contraception, one observes that there are different results in terms of both the use and type of method [18-20]. In our study, the Tr-FSDS-R score average was found to be significantly higher ($p < 0.05$) among women using contraception than among those who did not, and that the most common method was the withdrawal method (41.5%). Contrary to our study, a study conducted by Hotun had determined that during the postpartum period, women mostly preferred effective methods (i.e. DMPA, RIA, condom), and that there was no significant relationship between postpartum sexual problems and sexual problems over all. When evaluated with regard to contraceptive methods used, the findings of the 2013 TNSA Survey supports the findings of our study, revealing that almost 1/4 of married women in Turkey use the traditional withdrawal method [14]. Golbasi (2017) had also reveal that the most preferred method is withdrawal method [5]. Higher incidences of sexual distress among women in Turkish study who use withdrawal method may be due to the fact that this method is not effective, and that women may have further troubles due to being concerned about getting pregnant again.

Conclusion

In conclusion, the majority of women started sexual activity after forty days of postpartum. It was found that 3/4 of the women used any method of contraception and the method of withdrawal, which is a traditional method among the methods used, was in the first place. A significant proportion of women experience sexual problems during the postpartum period. In this process, nurses who are in closer communication with women need to provide information and counseling to women and their spouses about the sexual problems seen during this period, causes and possible solutions.

Competing interests

The authors declare that they have no competing interest

Financial Disclosure

The financial support for this study was provided by the investigators themselves.

Ethical approval

The protocol for the research project has been approved by the research ethics committee of the Giresun University. The research confirms to the provisions of the Declaration of Helsinki in 1995 (as revised 2013).

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