



Full Length Research Paper

# Sexual disorders in women depending on age

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In order to assess the sexual functioning of the surveyed 1686 women from reproductive age to postmenopause (19-70 years), a semi-structured interview method was used in which women answered questions regarding her libido, changes in her sex life, and the presence of a sexual partner. Libido changes were noted by more than half of women of all age groups - from 52.6 to 64%, while significantly lowering of libido was observed in perimenopausal women - in 270 (42.1%) and its absence in women in peri- 112 (17.4%) and postmenopause - in 67 (26.2%). Sexual dysfunction in women is observed in all age groups; however, high rates is set in peri- and postmenopausal women, which requests therapeutic and preventive measures development to increase the QOL of women in older age groups.

**Keywords:** sexual disorders, female sexual dysfunction, libido, dyspareunia, reproductive period, perimenopause, postmenopause.

## INTRODUCTION

The IMS recommendations (2013, 2017) state that "Quality of life (QOL) and sexuality are key factors that should be taken into account when managing an aging patient" [1,2,3], the same opinion is shared by American and Russian scientists [4, 5, 6, 7, 8,9].

In women, a progressive decrease in the level of estril in the blood serum, starting from 35 years of age, caused by the extinction of ovarian function, and subsequently and a decrease in the level of androgens, is clinically manifested in subsequent sexual disorders [10,11]. Decreased sexual desire, dyspareunia, and subsequently refusal of sexual contact, reduction, absence [12], and in some cases increased libido and sexual dissatisfaction caused by fluctuations in the level of sex hormones in perimenopause and persistent postmenopausal hypogonadism significantly reduce health related to QOL [13]. International Society for the Study of Women's Sexual Health calls doing for a 4-stage universal screening for: identifying, identifying problems, diagnosing sexual disorders in women for their adequate correction [14,15].

The aim of the study was to conduct a comparative assessment of sexual functioning in women from reproductive age to postmenopausal women.

## MATERIAL AND METHODS

Survey of 1686 women aged 35-70 years. The respondents were divided into 4 groups: 1 group, (n=188) were women 19-34 years old, who, according to the classification of Stages of Reproductive Aging Workshop STRAW+10 (2009) [16] and IMS recommendations (2016) [2] were in the early and middle reproductive periods of life; Group 2, (n=622) were women 35-44 years old who were conditionally in the late reproductive period; Group 3, (n=632) - women 45-54 years old - in perimenopause or the so-called "menopausal transition"; and 4th group, (n=244) - women 55-70 years old in postmenopausal period. QOL questionnaire containing 40 questions was filled out with all women, 6 of which characterized sexual functioning. Undoubtedly, validated assessment scales of female sexuality (Women's Health Questionnaire - WHQ, Female Sexual Function Index - FSFI) are more reliable and informative; however, our pilot survey on these scales did not give certain results due to the fact that women did not fill out some important components of the questionnaire. Questions of orgasm and lubrication required clarification, and in some cases caused embarrassment, shame, rejection, and subsequently-

refusal to fill out forms. In view of the ethnic national characteristics of our region (and in our study, 1456 (86.4%) women of Asian nationality), to obtain more informative data, both in qualitative and quantitative terms, as well as representativeness of the results and the subsequent development of recommendations, we evaluated the sexual functioning of women on the following issues: libido (oppression, absence, enhancement); and according to the QOL questionnaire, changes in sexual life (p.1) discomfort during sexual intercourse (p.2), rejection of sexual intercourse (p.3), sexual dissatisfaction (p.4), decrease in sexual desire (p.5) and the number or absence of the sexual partner (item 6). The degree of severity of sexual dysfunction was noted by women on a 6-point scale from 0 to 5 (from a negative answer - 0 points to an overly pronounced - 5 points), when asked about the number of sexual partners - its absence was valued at 5 points, and 0 points - the presence of single sex partner.

**Statistical processing** of the results was performed using the software package Statistica 6.0. The significance of differences in groups was assessed using

Student's t-test, the differences were considered significant at  $P \leq 0.05$ .

As is known, one of the important factors determining sexual health is the presence of a sexual partner, its activity, and its state of health [6,12,13,17]. In all groups, the majority of women were married (from 87.2 to 98.6%), but due to certain circumstances – divorce, widows, 59 (3.5%) women were single, not counting almost the same number of unmarried (Table1). More than half of women of all age groups noted a change in libido, from 52.0 to 66.8%, with a significantly more frequent change in the direction of oppression in perimenopausal women – in 270 (42.7%) and absence - in women in peri- 112 (17.7%) and postmenopausal – 67 (27.5%). If prescribing hormonal medication can help with the problem of lack or decrease libido, and the problem of increased libido in young women (17.0% in the first and 9.0% in the second group) having a sexual partner is relatively solvable, then the seriousness of the situation Although a small number of women: 29 (4.6%) in peri- and 6 (2.5%) - in postmenopausal women with increased libido are currently medically insoluble and creates significant difficulties, affecting the quality of life of aging women.

**Table 1:** Sexual disorders in the studied women, (abs,%)

Sexual disorders	Group 1, n=188		Group 2, n=622		Group 3, n=632		Group 4, n=244	
	abs	%	abs	%	abs	%	abs	%
Married women	164	87,2±2,4	613	98,6±0,5*	613	97,0±0,7*	237	97,1±1,1*
Not married	24	12,8±2,4	9	1,4±0,5*	19	3,0±0,7*	7	2,9±1,1*
Single (widowed, divorced)	0	0	13	2,1±0,6*	24	3,8±0,8*	19	7,8±1,7* ** ***
Libido change	101	53,7±3,6	326	52,0±2,0	411	65,0±1,9* **	163	66,8±3,0* **
Oppression libido	59	31,4±3,4	234	37,9±1,9	270	42,7±1,9*	90	36,9±3,1
Lack of libido	10	5,3±1,6	34	5,5±0,9	112	17,7±1,5* **	67	27,5±2,9* ** ***
Increase libido	32	17,0±2,7	55	9,0±1,1*	29	4,6±0,8* **	6	2,5±0,9* **

\* $P \leq 0,05$  the difference is significant compared with group 1  
 \*\*  $P \leq 0,05$  compared to group 2  
 \*\*\*  $P \leq 0,05$  compared to group 3  
 \*\*\*\*  $P \leq 0,05$  compared to group 4

**RESULTS AND DISCUSSION**

The results of the analysis of the sexual function based on QOL personal data showed that, despite the overwhelming majority of married women in all age groups, 133 (70.7%) women of the 1st group had a sexual partner for the period of the survey, although 164 of them were married (87.2 %); in group 2 - 428 (68.8%) and 613 (98.6%) – this indicates a difference of 30%, in perimenopause the sexual partner was 355 (56.2%), 613 (97%) were married the difference is 41.2%, whereas in

postmenopausal married 237 (97.1%) there were almost 2.6 times more women than sexually active women – only a third – 83 (35.7%) (Table 2). Consequently, marriage does not at all mean having a sexual partner, which is associated with a high frequency of affirmative answers about a change in sex life (p.1 of the questionnaire). However, it is important for women to relate to this fact, their sexual desires, sexual satisfaction or disorders that lead to discomfort and even refusal of

**Table 2:** Sex Cluster of Quality of Life in the studied women by age groups, (abs,%)

condition	Group1, n=188		Group 2,n=622		Group 3, n=632		Group 4, n=244	
	abs	%	abs	%	abs	%	abs	%
Married	164	87,2±2,4	613	98,6±0,5*	613	97,0±0,7*	237	97,1±1,1*
1 Changesinsexlife	93	49,5±3,6	310	51,0±1,5	313	49,5±2,0**	104	42,6±3,2**
2. Discomfort	59	31,4±3,4	222	35,7±1,9	237	37,5±1,9	71	29,1±2,9***
3. Refusal of sexualcontact	81	43,1±,6	310	49,8±2,0	323	51,1±2,0	102	41,8±3,2** ***
4. Sexualdissatisfaction	53	28,2±3,3	196	31,5±1,9	233	36,9±1,9* **	61	25,0±2,8***
5. ↓sexualdesire	54	28,7±3,3	210	33,8±1,9	254	40,2±2,0* **	81	33,2±3,0
6. Womenwith a partner	133	70,7±3,3	428	68,8±1,9	355	56,2±2,0* **	87	35,7±3,1* ** ***
0 is 1 partner	126	67,0±3,4	417	67,0±1,9	338	53,5±2,0* **	83	34,0±3,0* ** ***
5 is 0 partner	55	29,3±3,3	194	31,2±1,9	277	43,8±2,0* **	157	64,3±3,1* ** ***

\*P≤0,05 the difference is significant compared with group 1  
 \*\* P≤0,05 comparedtogroup 2  
 \*\*\* P≤0,05 comparedtogroup 3  
 \*\*\*\*P≤0,05 comparedtogroup 4

sexual contact. To obtain data on which conclusions can be made and to further determine the tactics of women, pp.2 and 3 were calculated on the number of women with a sexual partner(s)/ditch, while pp.4 and 5 – the number of women who responded to the questionnaire.

Thus, an analysis of these criteria indicates that approximately half of the women surveyed noted changes in sex life (p.1). Only in postmenopausal the frequency was significantly lower – in 104 (42.6%), which was accompanied by the answers – “decrease”, “worse” and “absence”, and excessively pronounced changes were noted significantly more often, whereas in the young reproductive – changes in the sexual the average life of every fifth woman – 39 (20.7%), while these changes were positive. Physical disorders in sexual activity due to discomfort during sexual intercourse (section 2), rated by us as dyspareunia, were noted by almost every third woman among all respondents – in 589 (36%), but unreliable more often in perimenopausal–in 237 (37.5%), whereas postmenopausal dyspareunia was observed less frequently, relative to the women of all other groups - in 71 (29.1%). At the same time, the frequency of responses “extremely strong” discomfort was noted significantly more often in postmenopausal women – in 17 (7%). This is probably due to atrophic changes in the mucous membrane of the vestibule and the mucous membrane of the vagina, its dryness and increased trauma due to this, which caused discomfort in women. The data we obtained on dyspareunia differ somewhat from the data presented in literature reviews, where chronic dyspareunia in premenopause was noted in 12-21% [18,19], and in postmenopausal women - more often

in 33-41% of women [18], but agree with meta-analysis data [20].

Refusal of sexual intimacy (p.3) most often noted women in perimenopause - 323 (51.1%), and least often – in postmenopause– 102 (41.8%), so to speak. “Softer” denied women of mature age (group 3 and 4) of responses rated at 1 point (“rarely”). Sexual dissatisfaction (p.4) most often accompanied women of the 3<sup>rd</sup> group – 233 (36.9%), and least of all – 4 groups – 61 (25%), P≤0.05. High scores (4 and 5) on this basis were unreliably more frequent among women of the 3<sup>rd</sup> and 4<sup>th</sup> groups, while the unexpressed and “weak, rare” dissatisfaction — significantly more often — among women of early and mature reproductive age. A decrease in sexual desire (p.5) was significantly more frequently observed in perimenopausal women – in 254 (40.2%). The most pronounced manifestation (4 and 5 points) was also significantly more frequently observed in peri-and postmenopausal women.

Lack of a sexual partner is one of the important factors in reducing the QOL of women in terms of sexual functioning. Family disharmony in most cases was accompanied by disorders in the sexual life, although women who felt sexual relevance had a long and prosperous sex life at an older age. There were no sexual partners – 683 (41.7%) women out of 1686 respondents. If women of the 1<sup>st</sup> group have a high percentage of the lack of a sexual partner – 29.3% is partly due to the lack of marriage, which in our society is highly likely to be considered equal to the absence of sexual life at a young age, then this indicator – 31.1%– for women middle reproductive, 43.8% – for women of the late reproductive and

premenopausal periods indicates the lack of demand for women in sexual life. But if in the active reproductive period, every third patient is sexually unclaimed, in perimenopausal women - almost every second patient, then in postmenopausal women have no sexual partner for 15 (64.3%) women. As noted by I.B. Manukhin et al: "the disharmony of sexual relations between partners lies at the basis of sexual dysfunctions, and not vice versa" [17]. Therefore, the analysis of these indicators is very important in terms of assessing sexual functioning as an important part of QOL as a whole.

Consequently, the qualitative characteristics of sexual health suffered more significantly in women in perimenopause and manifested themselves in changes in sexual life in 62.5% of cases, 1.4 times more often there

was a rejection of sexual contact and sexual dissatisfaction, and a decrease in sexual desire - 2 times. The overall score of sexual dysfunction in women was highest in postmenopause (8.2 points) and perimenopause (8.0 points), which significantly exceeded the figures for women in reproductive age (5.9 and 6.6 points) (Table 3).

The high indices of sexual dysfunction in peri-and postmenopause are consistent with the data of researchers [11,22] and correlate with factors: lack of sexual partner, functional (estrogendeficiency- atrophic genital changes -dysparinemia) and psychological ("empty nest syndrome", depression, problems with performance, job loss, often caused by retirement) [7, 10,22].

**Table 3:** Sex cluster of Quality of Life of the studied women, the average score ( $M \pm \delta$ )

Indicator	Group1, n=188	Group 2,n=622	Group 3, n=632	Group 4, n=244
1 Changesinsexlife	1,4+0,12	1,4+0,07	1,5+0,07	1,4+0,12
2 Discomfort	0,7+0,09	0,9+0,06	1,0+0,06*	0,9+0,10
3 Refusal of sexualcontact	0,9+0,1	1,2+0,06*	1,4+0,07* **	1,2+0,11
4 Sexualdissatisfaction	0,7+0,1	0,8+0,05	1,0+0,06* **	0,8+0,11
5 ↓sexdrive	0,7+0,1	0,8+0,06	1,1+0,06* **	1,1+0,11*
6 Sexualpartner	1,5+0,16	1,6+0,09	2,2+0,10* **	3,2±0,15* *** **
OverallGrade	5,9+0,35	6,6+0,20	8,0+0,22* **	8,2±0,32* *** **
*P≤0,05	the difference is significant compared with group 1		*** P≤0,05	comparedtogroup 3
** P≤0,05	comparedtogroup 2		****P≤0,05	comparedtogroup 4

## CONCLUSION

It is advisable to assess the sexual function of a woman by using questionnaires adapted to the local region to identify sexual problems that women do not talk about when collecting complaints and anamnesis. Sexual dysfunction in women is observed in all age groups; however, the maximum frequency is set in peri-and, according to some signs, in postmenopausal women, which requires the development of therapeutic and prophylactic measures to increase the QOL of women in older age groups.

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