Frequency of Sexual Dysfunctions and Behaviors Among Women Attending Health Care Centers in West of Tehran

Nasibe Eftekhari[1], Mehrdad Eftekhar[1*], Mansour Salehi[1], Maryam Rasoulian[2], Masoud Ahmadzad Asl[2], Nooshin Khademolreza[1], Maryam Soltai Ramezan Zadeh[3] and Seyed Fakhrodin Arman[3]

1. Department of Psychiatry, Faculty of Medicine, Iran University of Medical Sciences, Tehran, Iran

2. Mental Health Research Center, Tehran Institute of Psychiatry- School of Behavioral Science and Mental Health, Iran University of Medical Sciences, Tehran, Iran

3. Faculty of Medicine, Iran University of Medical Sciences, Tehran, Iran

Abstract

Background: Sexual dysfunction is a common problem among women visiting psychiatrists. This study was performed to determine the frequency of sexual dysfunctions and behaviors among women attending health care centers of Iran University of Medical Sciences which are located in the west of Tehran. The association between these dysfunctions and different variables was assessed. The number of participants who thought their partners had sexual dysfunctions was determined. The study was performed from Oct 2017 until Oct 2018.

Methods: In this observational descriptive cross-sectional survey, 400 women attending health care centers of Iran University of Medical Sciences from Oct 2017 to Oct 2018 were enrolled and the frequency of sexual dysfunctions and behaviors among them and their partners was determined by Female Sexual Function Index (FSFI) and Quality of Sexual Function (QSF) questionnaire. Their general health was assessed by General Heath Questionnaire (GHQ).

Results: In this study, the mean age of participants was 37.5 years and their mean Body Mass Index (BMI) was 28.5 kg/m. Totally, 223 subjects (55.8%) had sexual dysfunctions, including satisfaction (42.5%), pain (36.8%), desire (28.5%), arousal (25%), lubrication (29.8%) and orgasm disorder (30.5%). The frequency of sexual dysfunction was not significantly related to age, BMI, mood disorder, psychosomatic problems, general health and somatic problems ($p>0.05$) and 8% of participants had masturbated at least once in their life.

Conclusion: It may be concluded that more than half of women attending health care centers had sexual dysfunctions in which satisfaction disorder was the most prevalent one.

Also, 43% of participants thought that their partners had sexual dysfunction. These rates are high and would require further attention and assessment.

Keywords: Prevalence, Sexual dysfunction, Women

*** Corresponding author**

Mehrdad Eftekhar, MD
Department of Psychiatry, Iran University of Medical Sciences, Tehran, Iran
Email: mehrdad.eftekhar@gmail.com

Received: May 5 2020
Accepted: June 15 2020

Citation to this article:

Eftekhari N, Eftekhar M, Salehi M, Rasoulian M, Ahmadzad Asl M, Khademolreza N, et al. Frequency of Sexual Dysfunctions and Behaviors Among Women Attending Health Care Centers in West of Tehran. *J Iran Med Counc*. 2020;3(3):115-22.

Introduction

Sexual dysfunction in women is characterized by intermittent or persistent decrease in sexual desire and arousal, pain during or after coitus and decrease or total loss of orgasms. In DSM-5, sexual disorders are classified into four categories, including: 1) Sexual interest or arousal disorder, 2) Orgasmic disorder, 3) Genito-pelvic pain/penetration disorder, and 4) Substance/medication – induced sexual dysfunction (1).

According to Laumann's survey in 1992 on 1410 men and women, aged 18 to 59 years old, in USA, 43% of women had sexual dysfunctions (2). Ghiasi and Keramat conducted a systematic review and meta-analysis in 2017 in Iran (3). The pooled prevalence of sexual disorders among women was estimated to be 52%. Also, the pooled prevalence of sexual interest, arousal, lubrication, pain and orgasm was 39, 32, 38 and 30%, respectively. A global study by Laumann in 29 countries showed that the most prevalent female sexual dysfunction is low sexual desire and inability in achieving orgasms (4). It is stated in multiple studies that aging is related to decrease of sexual desire (5-8).

Sexual dysfunctions can cause a negative impact on peoples' quality of life and may lead to mental disorders (9). Talking about sexual issues is still a taboo in many countries (10). In spite of high prevalence of these disorders, studies are still scarce in Iran (11).

Sexual behaviors have been reported to be different among different ages and cultural and socioeconomic groups. Most of the assessed societies were so different from Iranian society (12-15). Due to basic changes in Iranian attitudes toward sexual issues, there has been a great change in the patterns of sexual relationships. So, there is a need for newer and more accurate studies to be done. Furthermore, past studies done in Iran, mostly assessed the prevalence of sexual disorders and much less attention has been paid to sexual behaviors like masturbation which bears a stigma (16). A lot of work has been done to identify masturbation as a strategy to promote sexual health and intimacy and decrease unwanted pregnancy and Sexually Transmitted Infections (STIs). In spite of all these efforts, when it comes to consider masturbation as a strategy for healthy sexual development, there is a silence in scientific communities (17). So, it was important to know how prevalent this behavior was in Iran to provide a base for further studies in this context.

For the first time in Iran, an attempt was made to run a multidimensional survey to provide a holistic view into sexual issues in our society. To achieve this target, a recent assessment of epidemiology of these disorders was done in combination with investigating participants' Body Mass Index (BMI) and the prevalence of probable causes (such as mood and anxiety disorders and physical health situation) and their relationship to the epidemiology of sexual problems. Also, the number of participants who thought their partners had sexual dysfunctions was calculated.

Health care centers were chosen because multiple services are offered to women in them, including regular visits by family physicians, psychological counseling by psychologists and peripartum care by nurses. Clients usually have regular contact with health service providers who are mainly female. These characteristics provide a safe condition for women to explore themselves more freely. As health care centers of Iran University of Medical Sciences are extended from northwest to southwest of Tehran, our samples were from different geographic areas of Tehran; therefore, our sample was probably similar to the community of women in Tehran. The opportunity of running our survey in such a proper place besides the fact that all of the questionnaires were filled with close monitoring of a professional (Psychiatry resident), makes us believe that our estimates are one of the closest ones to the reality.

Materials and Methods

This observational descriptive cross-sectional study assessed the prevalence of sexual dysfunctions in Iran University health care centers from Oct 2017 to Oct 2018. There are 92 centers and at least 5 centers are located in every district of west of Tehran. The services offered include regular visits by family physician, peripartum care, vaccination and psychological counseling by psychologists if needed. The inclusion criteria were to be married and being able to write and read in Farsi. The only exclusion criterion was pregnancy. There was no limitation for the age of participants. The method of sampling was visiting health care centers and enrolling 5 consecutive samples and then going to the next center, twice a week. Less than 10% of clients in health care centers did not agree to participate in the survey. These people thought that

sexual issues are private and although the researcher asked them to answer only the demographic questions, most of them rejected her request.

Research instruments

These three questionnaires were used in this survey:

1. Female Sexual Function Index (FSFI)
2. General Heath Questionnaire (GHQ)
3. Quality of Sexual Function (QSF)

The researcher was a psychiatry resident and she had one assistant. The researcher herself talked to every participant about the purpose of the survey and confidentiality issues and those who agreed to participate, filled the questionnaires.

1. FSFI: It was designed by Rosen *et al* (18) and includes 19 items which assess 6 domains of sexual dysfunctions. Psychiatrists decide if the person has a sexual dysfunction by the score she gets. Our reason for choosing this questionnaire was that a survey conducted by Mohammadi proved its Persian version to be reliable and valid and that it could be used as a screening tool for sexual disorders. The Cronbach's alpha coefficient was 0.7 for this questionnaire (19).

2. GHQ: It assesses general health by 28 questions and 4 subscales, including somatic symptoms, anxiety, depression and social function. This questionnaire has been assessed in different countries and its sensitivity and specificity have been measured 0.84 and 0.82, respectively.

3. QSF questionnaire: Validity and reliability of this questionnaire in Iran was assessed in a research conducted by Ranjbar and they were proved to be more than 70%. This article will be published soon. The questionnaire was assessed earlier in Germany by Heinemann *et al* and the internal consistency reliability coefficients were reported to be good (20). This questionnaire analyses 40 items. The first 13 questions are about psychosomatic complaints. Questions 14 to 32 are associated with sexual activity, self- reflected sexual dysfunctions and the participant's perception of sexual disorders in her partner. Every question's score is different from zero (in the cases that do not have a sexual partner) to five (in the most severe dysfunctions). The final 8 questions assess demographic variables, the importance of sexual relationship for the participant, height, weight and the presence and absence of masturbatory behavior.

Data analysis

Data was collected and analysis was done by SPSS software version 13 (SPSS Inc, Chicago, USA). Independent T-test and chi-squared test were used for comparison and significance level was considered 0.05.

Ethics

It should be noted that this survey was recorded in Iran University of Medical Sciences under the number 5033 and received ethical code (IR.IUMS.REC 1396.9411286003).

The participants were reassured about confidentiality and those who agreed to participate, did it anonymously to make participants feel confident. In fact, the participants put their questionnaires inside a box.

Results

Totally, 400 women were assessed in this study. The average age of participants was 37.5 years and BMI average was 28.5. Although there was no age limit, all of them were above 20 years old. None of them had a BMI less than 19 (underweight). It is shown in figures 1 and 2.

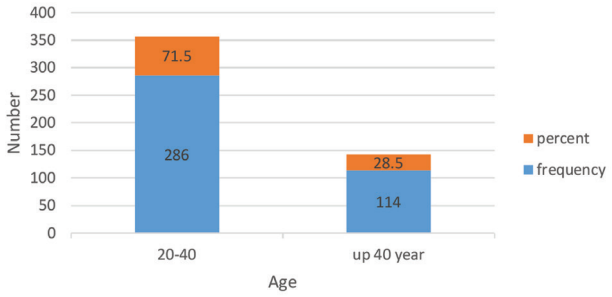

Figure 1. Age of participating women in the study.

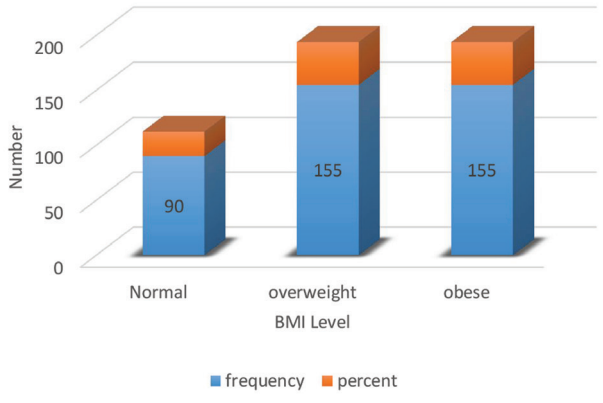

Figure 2. BMI of participating women in the study.

Generally, 58.3% thought that sexual relationship is important and 26% declared it was very important. Also, 8% had masturbated at least once. Figure 3 shows the frequency and severity of psychosomatic problem. They were present in 42% of cases (17.8% mild, 13.3% moderate and 11% severe).

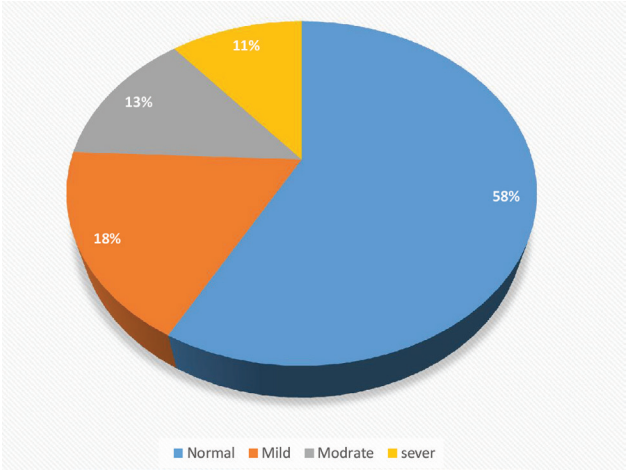

Figure 3. Psychosomatic quality of life test of participating women in the study.

As shown in table 1, according to GHQ, 46.5% had somatic disorders (24% mild, 8.5% moderate and 14% severe).

Generally, 21.5% of participants had anxiety (10.8% mild, 8.5% moderate and 2.2% severe). In 23.1% of cases, there were social problems (11.8 % mild, 7.8% moderate and 3.5% severe). Also 33.8% had depression criteria (25.5% mild, 4.3% moderate and 4% severe). Also, 45.7% of cases were in good general health.

Totally, 223 individuals (55.8%) had sexual dysfunctions. Results of FSFI are illustrated in table 2.The most prevalent sexual dysfunction was satisfaction disorder (42.5%). Among participants, 36.8% reported pain during or shortly after sexual activity. Also, 30.5% had difficulty in achieving orgasms. Lubrication, desire and arousal disorders were present in 29.8, 28.5 and 25% of cases, respectively.

Table 3 shows the rate of sexual dysfunction according to the results of QSF questionnaire. Among cases, 42.7% had sexual dysfunctions and 51% of participants reported self- reflected disorder and 43% thought that their partner had sexual dysfunction. Total QSF score was 54%.

Table 1. Results of General Heath Questionnaire (GHQ) in participating women in the study

Variable	No disorder	Mild	Moderate	Severe	Total
	Frequency (Percentage)	Frequency (Percentage)	Frequency (Percentage)	Frequency (Percentage)	Frequency (Percentage)
Somatic	214(53.5)	96(24)	34(8.5)	56(14)	400(100)
Anxiety	314(78.5)	43(10.8)	34(8.5)	9(2.2)	400(100)
Social	308(76.9)	47(11.8)	31(7.8)	14(3.5)	400(100)
Depression	265(66.2)	102(25.5)	17(4.3)	16(4)	400(100)

Table 2. The results of Female Sexual Function Index (FSFI) of participating women in study

Variable	With dysfunction	No dysfunction	Total
	Frequency (Percentage)	Frequency (Percentage)	Frequency (Percentage)
Sexual desire	114(28.5)	286(71.5)	400(100)
Arousal	100(25)	300(75)	400(100)
Lubrication	119(29.8)	281(70.2)	400(100)
Orgasm	122(30.5)	278(69.5)	400(100)
Satisfaction	170(42.5)	230(57.5)	400(100)
Pain	146(36.8)	254(63.5)	400(100)
Total sexual dysfunction	223(55.8)	177(44.2)	400(100)

Table 3. Results of scale for Quality of Life Sexual Function (QSF) of participated women in the study

Variable	No disorder Frequency (Percentage)	Mild Frequency (Percentage)	Moderate Frequency (Percentage)	Severe Frequency (Percentage)	Total Frequency (Percentage)
Sexual dysfunction	229(57.3)	123(30.8)	34(8.5)	14(3.5)	400(100)
Sexual reflection	196(49)	161(40.3)	29(7.3)	14(3.5)	400(100)
Idea about husband	228(57)	88(22)	18(4.5)	46(11.5)	400(100)
Total score of QSF	184(46)	141(35.3)	62(15.5)	13(3.3)	400(100)

As revealed by results of independent T-test and chi-squared test, age and BMI were not associated with presence of sexual disorders (p=0.948 and 0.088). The presence of sexual disorder was not related to psychosomatic problems either (p=0.836). Also, no relationship was found between sexual dysfunction and depression (p=0.999) and general health (p=0.138).

Discussion

In our study, 223 cases (55.8%) had sexual dysfunctions. As already mentioned, satisfaction disorder was the most prevalent one, which is a unique finding in comparison to most of the previous researches. Safarinejad studied 2626 women using FSFI in 2006. In this study, the most prevalent one was orgasmic disorder (37%). Sexual desire, arousal and pain disorder were present in 35, 30, and 26.7%, respectively (21). Jaafarpour *et al* assessed the frequency of sexual disorder in 400, 18-50 year old married women in 2013 which revealed 46.4% of women had sexual dysfunction that was more prevalent in older women. Sexual desire, arousal, orgasmic, and pain disorder were present in 45.3, 37.5, 42 and 42.5%, respectively (22). These points should be mentioned to interpret our findings. First of all, maybe women report satisfaction disorder more than past because their attitude toward sexual relationship has changed and their expectation has increased. There has been a great change in patterns of sexual relationship in our society. So, this finding seems logical and more assessment in future researches is suggested. Secondly, this survey was performed in health care centers which as mentioned before, could make participants feel safer and report their dissatisfaction more honestly. The fact that most of the staff in these centers were women and clients returned multiple times for variable services, might have helped the researcher to get closer to the reality. The third factor that might have contributed to an increase in prevalence of dissatisfaction could be social determinants. There has been a great general dissatisfaction in Iranian society during recent years and it is logical to consider this has expanded to sexual relationships.

The second most prevalent disorder in our study was pain disorder (36.8%). There was a relative great difference between our study and Safarinejad's (about 10%). This can be justified by time lapse between two studies and the change of attitudes. The higher prevalence of pain disorder in our survey might be related to our sampling to some extent. Given that a large number of clients attending health care centers come for vaccinating their children and that most of the vaccines are given in the first year of life, a large number of our participants might have been in peripartum period and experienced more pain during or after sexual intercourse. This seems more logical when reviewing the results of Jaafarpour *et al*'s study whose sampling was like ours and showed a high prevalence of pain disorder (42.5%). In a study performed by Boroumand *et al*, it was stated that the prevalence of sexual dysfunction increases in peripartum period (23).

In a meta-analysis done by McCool-Myers *et al* on 440 publications, it was concluded that estimates of Female Sexual Dysfunction (FSD) varied substantially in different studies. However, overall prevalence rate of FSD in our study (55%) was much more closer to the result of Ghiasi and Keramat's extensive meta-analysis which was done more recently (2,24).

The next considerable finding of our study was prevalence of masturbatory behavior to which less attention has been paid before. Generally, 8% of

participants reported that they had practiced it at least once which is a lot lower than statistics in other countries (25). Considering that masturbation is a taboo in our country, its prevalence is expected to be lower. Given that, as mentioned before, masturbation can have some effects on sexual development, it is worth to be studied more in future researches in Iran and our findings can be a basis for that. Although the participants were assured about the confidentiality of their personal information and questionnaires were self-completed, the procedure was not very successful. Particularly those women who attended with their husbands might not have enough privacy for honest answers about this behavior.

QSF questionnaire was used for the first time in Iran and provided us a unique chance to elicit ideas about their partners' sexual dysfunction. It was notable that a large number of participants (43%) thought that their partners had sexual disorder. This finding can be considered congruent with the high prevalence of dissatisfaction. There should be further study to find out the causes and effects of these two on couples' relationships.

Past studies focused mostly on sexual desire disorder (26-29). Carvalho and Nobre performed a survey on 237women, aged 18 to 73 in Portugal in 2010 to evaluate hypoactive sexual disorder. According to results of this research, psychosis was the only mental disorder that was related to decrease in sexual desire. Also, medical disorder could decrease sexual desire in women (30). In our study, there was no relationship between sexual dysfunction and psychosomatic or somatic disorders.

Depression and anxiety (sometimes called negative mood state) are typically related to a decrease in sexual desire and arousal. However, there is evidence of increase in sexual desire due to depression or anxiety (31). In our study, there was not a clear relationship between these disorders and sexual dysfunction.

Conclusion

Results of this study showed that more than half of women attending health care centers had sexual dysfunctions. So, these disorders are prevalent and they should be evaluated more to plan treatment programs. In this study, health care centers were selected to make participants feel safe and to have a sample close to the community of married women living in Tehran although our sampling limited our procedures in some ways. As mentioned before, a large number of women were in peripartum period which might have limited the range of their ages or increased the BMI average or prevalence of pain disorder. Also, the fact that some of participants attended with their husbands might affect the results.

In spite of all limitations, valuable information was elicited about the increase in total sexual dysfunction (55.8%), dissatisfaction (42.5%) and pain disorder (36.8%). Furthermore, prevalence of masturbation in Iran was found to be 8% that could be a basis for further investigations. The fact that a large number of participants (43%) reported sexual disorder of their partners is noteworthy and deserves more evaluation in future.

Suggestions for future studies

Regarding the fact that women of peripartum period attend health care centers more than others and some of them come with their husbands, future studies should be performed with wider range of age distribution.

Also, to remove the effect of husband presence, future studies can be done in environments where women attend alone, like hair salons.

References

1. APA. Diagnostic and Statistical Manual of Mental Disorder (DSM-5). 5th ed. Washington DC, USA: American psychiatric publishing; 2013.p.423-51.

2. Laumann EO, Paik A, Rosen RC. Sexual dysfunction in the United States: Prevalence and predictors. JAMA 1999;281(60):537-44.

3. Ghiasi A, Keramat A. Prevalence of sexual dysfunction among reproductive-age Women in Iran: A systematic review and meta-analysis. J Midwifery Reproductive Health 2018;6(3):1390-8.

4. Laumann EO, Nicolosi A, Glasser DB, Paik A, Gingell C, Moreira E, et al. Sexual problems among women and men aged 40-80 years old: Prevalence and correlates identified in the global study of sexual attitudes and behaviors. Int J Impot Res 2015;17(1):39-57.

5. Wylie K, Danis B, Jannini EA, Hallam-Jones R, Boul L, Wilson L, et al. Loss of sexual desire in the postmenopausal women. J Sex Med 2007;4(2):395-405.

6. Kinsberg SA. The impact of aging on sexual function in women and their partners. Arch Sex Behav 2002;31(5):431-7.

7. Dennerstein L, Koochaki P, Barton I, Grazziottin A. Hypoactive sexual desire disorder in menopausal women: A survey of western europian women. J Sex Med 2006;3(2):212-22.

8. Hartmann U, Philipposohn S, Heiser K, Ruffer-Hesse C. Low sexual desire in midlife and older women: Personality factors, psychosocial development, present sexuality. Menopause 2004;11(6 Pt 2):726-40.

9. Hissue S, Kumamoto Y, Sato Y, Masumori N, Horita H, Kato R, et al. Prevalence of sexual dysfunction symptoms and its relationship to quality of life: A Japanese cohort study. Urology 2005;65(1):143-8.

10. Karimian Z, Atoof F, Azin SA, Maasoumi R, Merghati Khoei E. Sexual behaviors and its predictors among Iranian women living in Kashan city 2017: A cross-sectional study. Int J Fertil Steril 2018;12(3):207-12.

11. Ramezani M, Ahmadi K, Ghaemmaghami A, Azad Marzabadi E, Pardakhti F. Epidemiology of sexual dysfunction in Iran: A systematic review and meta-analysis. Int J Prev Med 2015;6:43.

12. Atallah S, Johnson-Agbakwu C, Rosenbaum T, Abdo C, Byers ES, Graham C, et al. Ethical and sociocultural aspects of sexual function and dysfunction in both sexes. J Sex Med 2016;13(4):591-606.

13. Palacios S, Castano R, Grazziotin A. Epidemiology of female sexual dysfunction. Maturitis 2009;63(2):119-23.

14. Graziottin A, Serafini A, Palcios S. Etiology, diagnostic algorithms and prognosis of female sexual dysfunction. Maturitis 2009;63(2):128-34.

15. Ponholzer A, Rohelich M, Racz U, Temmel C, Madersbacher S. Female sexual dysfunction in a healthy Austrian cohort: Prevalence and risk factors. Eur Urol 2005;47(3):366-375.

16. Shakeri A, Sedaghat Rostami M, Mazdai Kh, Mohammadi A. Masturbation: Prevention and treatment. Procedia Soc Behav Sci 2011; 30:1641-1646.

17. Kaestle CE, Allen KR. The role of masturbation in healthy sexual development: Perception of young adults. Arch Sex Behav 2011;40(5):983-94.

18. Rosen R, Brown C, Heiman J, Leiblum S, Meston C, Shabsigh R, et al. The female sexual index (FSFI): A multidimensional self-report instrument for the assessment of female sexual function. J Sex Marital Ther 2000;26(2):191-208.

19. Mohammadi Kh, Heydari M, Faghihzadeh S. The female sexual function index (FSFI): Validation of Iranian Version. Payesh 2008;7(3):269-78.

20. Heinemann LAJ, Patthof P, Heinmann K, Palus A, Ahlers CJ, Saad F. Scale for quality of sexual function (QSF) as an outcome measure for both genders. J Sex Med 2005;2(1):82-95.

21. Safarinejad MR. Female sexual dysfunction in a population based study in Iran: Prevalence and associated risk factors. Int J Impot Res 2006;18(4):382-95.

22. Jaafarpour M, Khani A, Khajavikhan J, Suhrabi Z. Female sexual dysfunction: Prevalence and risk factors. J Clin Diag Res 2013;7(12):2877-80.

23. Boroumand Kh, Rahmati G, Farajzadegan Z, Hoseini H. Reviewing sexual function after delivery and its association with some of the reproductive factors. Iran J Nurse Midwifery Res 2010;15(4):220-3.

24. McCool-Myers M, Thueurich M, Zuelka A, Knuettel H, Abfelbacher C. Predictors of female sexual dysfunction: A systematic review and qualitative analysis through gender inequality paradigms. BMC Womens Health 2018;18(1):108.

25. Robbins CL, Schick V, Reece M, Herbenick D, Sanders SA, Dodge B, et al. Prevalence, frequency, and associations of masturbation with partnered sexual behaviors among US adolescents. Arch Pediatr Adolesc Med 2011;165(12):1087-93.

26. Das A, Parish WL, Laumann EO. Masturbation in urban China. Arch Sex Behav 2009;38(1):108-20.

27. Brotto LA, Petkau AJ, Labrie F, Basson R. Predictors of sexual desire in women. J Sex Med 2011;8(3):742-53.

28. McCabe MP, Goldhammer DL. Prevalence of women's sexual desire problems: What criteria do we use?. Arch Sex Behav 2013;42(6):1073-8.

29. Arrow BA, Millheiser L, Garret A, Lake Polan M, Glover GH, Hill KR, et al. Women with hypoactive sexual desire disorder compared to normal females: A functional magnetic resonance imaging study. Neuroscience 2009;158(2):484-502.

30. Carvalho J, Nobre P. Predictors of women's sexual desire: The role of psychopathology, relationship dimensions and medical factors. J Sex Med 2010;7(2 part 2):928-37.

31. Lykins AD, Janssen E, Graham CA. The relationship between negative mood and sexuality in heterosexual college women and men. J Sex Res 2006;43(2):136-43.