CLINICAL SCIENCE

Prevalence and related factors for anorgasmia among reproductive aged women in Hesarak, Iran

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INTRODUCTION: Orgasmic dysfunction in women is characterized by persistent or recurrent delay in or absence of orgasm following a normal sexual excitement phase. Research has shown that almost two thirds of women have concerns about their sexual relationship. Sexual dysfunction has many problems for couples; some researchers found that up to 67% of divorces related to sexual disorders.

OBJECTIVE: The aim of this cross-sectional study was to assess the prevalence and related factors of anorgasmia among reproductive age Iranian women.

METHODS: This study was conducted in 2006–7 in Hesarak, Karaj, Iran. A total of 1200 women were randomly recruited to the study. Sexual satisfaction questions were prepared according to the Enrich Sexual Satisfaction Questionnaire. Orgasms were assessed according to the relevant questions in the Female Sexual Function Index (FSFI) questionnaire. The data were analyzed using SPSS version 11; Chi-square, Mann–Whitney and independent t-test were used for statistical purposes.

RESULTS: This study showed that the prevalence of anorgasmia among Iranian women in Hesarak, Karaj, was 26.3%. There was a significant difference between the anorgasmic and normal orgasm groups regarding the women's age, age at marriage, duration of marriage and education during puberty ($p<0.05$). Some psychological factors, e.g. anxiety, fatigue, pain, feeling of guilt, anti-masculine feelings and embarrassment in sexual relationships were higher in the anorgasmic group ($p<0.001$).

DISCUSSION: The results of this study showed that the prevalence of anorgasmia in Hesarak is high and most of the anorgasmic women were highly unsatisfied with their sexual relationship compared to the normal orgasm group.

CONCLUSION: The prevalence of anorgasmia among Iranian women in Hesarak, Karaj, is high and some socio-demographic and psychological factors have a strong relationship with anorgasmia.

KEYWORDS: Anorgasmia; Psychological factors; Sexual satisfaction; Sexual orgasm; Reproductive age.

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INTRODUCTION

Sexuality is an important and integral part of every woman's life. The sexual response cycle in women is mediated by the complex interaction of psychological, environmental and physiologic (hormonal, vascular, muscular and neurologic) factors.[1]

The initial phase of the sexual response cycle is interest and desire, followed by four successive phases: arousal, plateau, orgasm and resolution.[2]

Orgasmic disorders in women are characterized by persistent or recurrent delay in or absence of orgasm following a normal sexual excitement phase, resulting in distress or interpersonal difficulties.[3]

Orgasmic dysfunction is more prevalent in younger and less sexually experienced women. Primary (life-long) anorgasmia is found in about 5–10% of women and is less common than secondary (acquired) anorgasmia.[4]

Research has shown that almost two-thirds of women have concerns about their sexual relationships.[5] In a study in America 43% of the 1749 women interviewed reported experiencing in the past year events such as a lack of interest in sex, inability to achieve orgasm and trouble lubricating compared with 31% of men.[6]

Many factors affect orgasmic function, e.g. age, education, job, folklore (taboos), religious beliefs, drugs, psychological disorders and gynecological surgery.[7]

Sexual dysfunction causes many problems for couples; some researchers found that up to 67% of divorces are related to sexual disorders.[8] It seems that counseling and

education in sexual behavior is the most effective treatment for sexual dysfunction.[9] In some countries like Iran, with a male-dominant culture, women have difficulties expressing their own feelings, erotic and non-erotic sexuality; therefore, study of sexual dysfunction is fundamental.[10] To date we do not have any basic statistics about the prevalence of anorgasmia among women in Iran. This study was designed to gather data about the prevalence of anorgasmia and related factors in Hesarak, Karaj, Iran.

MATERIALS AND METHODS

This cross-sectional study consisted of 1200 women aged 15–45 years who were recruited in 2006–7 at the Hesarak Health Clinic in Karaj, Iran, using a quasi-randomization method. The study was approved by the Ethical Committee of the Ahvaz Jondishapur Medical Science University in Iran. The city of Hesarak near Tehran has one governmental health clinic. Researchers divided the city into four geographic areas and 1200 women were chosen from these sections. All documents pertaining to women aged 18–45 years were reviewed, and 300 health records in each geographic area (north, south, west and east) were chosen using a quasi-randomization method (according to odd or even number of the health record). These women usually attended the health clinic for routine consultations regarding themselves or their children; otherwise they were invited to come to the clinic by a phone call. Informed consent was obtained from each woman prior to the study. Inclusion criteria consisted of sexually active women married for at least 1 year and living with their spouse. The exclusion criteria were any systemic diseases in the wife or husband, taking medicine, any psychological diseases requiring medication, any gynecological surgery, e.g. hysterectomy, vaginoplasty and any gynecological disorders, such as endometriosis and myoma.

A questionnaire comprising three sections relating to socioeconomic characteristics, sexual satisfaction and assessment of sexual function was prepared. Sexual satisfaction was measured according to the Enrich Sexual Satisfaction Questionnaire and contained 47 items.[11] A five-point Likert scale was used for scoring. High sexual dissatisfaction scored less than 122, relative sexual dissatisfaction scored 123-147, relative sexual satisfaction scored 148–202 and high sexual satisfaction scored 203–227.

Orgasms were assessed based on the relevant questions in the Female Sexual Function Index (FSFI) questionnaire.[12] Anorgasmia was detected using three questions about orgasm from the full version of the FSFI Questionnaire. For each question we added the individual scores of items comprising the domain of orgasm and multiplied the sum by 0.4. If a participant scored less than 4 for 3 questions, she was classified as anorgasmic.

5-item Likert scales were used for scoring. All data were gathered from interviews. One of the researchers (MSc in Midwifery) carried out all the interviews. The psychometric validation of the FSFI has been approved by some international studies.[12] The data were analyzed using SPSS version 11. The independent t-test was used for variables, e.g. age, age of marriage, duration of marriage, spouse's age and frequency of intercourse per month. The Chi-square test was utilized for variables such as job, sex education during puberty, personal view about sexual relationships and psychological factors. The Mann–Whitney test was used for variables like education level and the relationship between sexual satisfaction and anorgasmia.

RESULTS

The socio-demographic characteristics of the anorgasmia and the normal sexual function groups are presented in Table 1. All subjects in this study were Muslim. The prevalence of anorgasmia was 26.3%. There was a significant difference in age of participants between the anorgasmia and the normal orgasm groups ($p = 0.004$). Participants with anorgasmia were older than the normal orgasm group (30.9 and 29.5 respectively). The age at marriage was lower in the anorgasmia group ($p = 0.03$) and the duration of marriage was significantly higher than the normal orgasm group ($p = 0.001$).

Higher education was less common in the anorgasmic group: 26.3% in the anorgasmic group had high school education compared with 32.8% in the normal orgasm group ($p = 0.02$). The anorgasmic group received significantly less sex education during puberty (18% vs nearly 30% in the normal orgasm group, $p<0.001$).There was no significant relationship between the frequency of intercourse per month and anorgasmia (Table 1).

The rate of sexual dissatisfaction was higher in the anorgasmia group (52.2% were highly unsatisfied or

Table 1 - Comparison between anorgasmic and normal orgasm groups concerning socio-demographic characteristics.

Characteristics	Anorgasmia (n = 316) mean (SD)	Normal orgasm (n = 884) mean (SD)	Test value	p-value
Age	30.9 (8.1)	29.5 (7.6)	t = 3.2 df = 1198	0.004
Age of marriage	18.6 (3.9)	19.1 (3.6)	t = 3.24 df = 1198	0.03
Duration of marriage (years)	12.1 (9.2)	10.2 (8.3)	t = 3.58 Df = 1196	<0.001
Age of spouse	36.2 (9.5)	34.1 (8)	t = 3.62 df = 1198	<0.001
Education	**n (%)**	**n (%)**		
Illiterate	9 (2.8)	17 (1.9)		0.02
Primary education	203 (64.2)	510 (57.7)	U = 12982 Z = –2.2	
High school	83 (26.3)	290 (32.8)		
University education	21 (6.7)	67 (7.6)		
Sex education in puberty				
Yes	57 (18)	263 (29.8)	χ^2 = 15.7 df = 1	<0.001
No	259 (82)	620 (70.2)		
Frequency of intercourse per month, mean (SD)	9.2 (6.2)	9.3 (5.9)	t = 2 df = 1190	NS

NS = not significant

Table 2 - Comparison between anorgasmic and normal orgasm groups concerning sexual satisfaction and opinion about sex.

Sexual satisfaction	Anorgasmia (n = 316) N (%)	Normal orgasm (n = 884) N (%)	Test value	p-value
High dissatisfaction	24 (7.6)	25 (2.8)		
Relative dissatisfaction	141 (44.6)	322 (36.4)	U = 118258 Z = –4.3	<0.001
Relative satisfaction	130 (41.2)	424 (48)		
High satisfaction	21 (6.6)	113 (12.8)		
Women's opinion about sex				
Duty	185 (58.5)	388 (43.9)	χ^2 = 12.8 df = 2	0.002
Joy	62 (19.6)	235 (26.6)		
Duty and joy	69 (21.8)	261 (29.5)		

Table 3 - Comparison between anorgasmic and normal orgasm groups concerning physiological factor.

Psychological factors	Anorgasmia (n = 316) N (%)	Normal orgasm (n = 884) N(%)	Test value	p-value
Anxiety	60 (19)	101 (11.4)	χ^2 = 198 df = 7	<0.001
Fatigue	36 (11.4)	150 (17)		
Pain	45 (14.2)	58 (6.6)		
Guilt	4 (1.3)	5 (0.6)		
Anti-masculine feelings	50 (15.8)	61 (6.9)		
Embarrassment	17 (5.4)	12 (1.4)		
Feeling of joy	3 (0.9)	340 (38.5)		
Others	101 (32)	157 (17.6)		

relatively unsatisfied compared with the 39.2% in the normal orgasm group, $p<0.001$). There was also a significant difference between the women's opinion about sex and anorgasmia in the two groups (58.5% of women in the anorgasmic group believed that sex is a duty compare with 43.9% in the normal orgasm group, $p=0.002$) (Table 2).

There was a significant difference between the two groups in terms of psychological factors, e.g. anxiety, fatigue, pain, feelings of guilt, anti-masculine feelings and embarrassment were higher in the anorgasmic group and only 0.9% of women in this group felt any pleasure ($p<0.001$) (Table 3).

DISCUSSION

The results of this study showed the prevalence of anorgasmia to be 26.3%. Our findings are in agreement with other studies. A study in Brazil among women 18 years or older showed that the prevalence of orgasmic dysfunction was 21%.[13] In a study in Yazd-Iran the prevalence of anorgasmia was 26.1%.[14] A study in Nigeria among women aged 15–49 years indicated that 55% of women had problems with orgasm. The researchers believed that poor marital communication, lack of foreplay, Islamic religion and advancing age were independently associated with problems of desire.[15] The high prevalence of orgasmic disorder in Nigeria compared with the present study is because the researchers included all orgasmic disorders (delay in orgasm and anorgasmia) not just the lack of orgasm. A study by Eşsizoğlu et al.[16] found that religious beliefs affected sexual intercourse and sexual beliefs.

Anorgasmic women were significantly older than women in the normal orgasm group. Studies have shown that with increasing age the rate of anorgasmia increases.[17–19] Increased age may cause sexual dysfunction, especially in women.[20]

The mean age at marriage in the anorgasmic group was significantly less than that of the normal sexual function group. It seems that the marriage age is an important factor for successful sexual function, indicating that with increasing age at marriage, anorgasmia will decrease.[21] In fact, women who are older when they marry have more time to develop body awareness, which could provide better control over orgasm.

The duration of marriages in the anorgasmic group was significantly longer than in the normal sexual function group. Other studies have also confirmed the results of the present study.[20,22]

The present study showed that anorgasmia is much less frequent in well-educated women. These results are confirmed by other studies that found the rate of anorgasmia may decrease with higher education level.[22–23] It seems that a lower education level is related to lower rates of body awareness and being more influenced by taboos.

Sex education during puberty had a significant relationship with anorgasmia. The anorgasmic group received significantly less sex education than the normal sexual function group. Parental attitudes about sexual relationships affect the sexual function of their children.[24]

The results of this study showed that most of the participants in the anorgasmic group were highly unsatisfied with their sexual relationship compared with the normal orgasm group. In a study in the United States researchers found that sexual function is closely related to sexual satisfaction,[25] and that sexual satisfaction can affect all aspects of life.[26]

The attitude of people to sexual relationships may influence the occurrence of anorgasmia.[27] In the present study, the number of subjects who enjoyed sexual intercourse in the anorgasmic group was fewer than in the normal orgasm group. According to past studies there is a direct relationship between a person's attitude and anorgasmia.[28]

The rate of anxiety in the anorgasmic group was higher than in the normal orgasm group, and they did not enjoy

sexual intercourse as much as the normal orgasm group. Psychological factors may influence orgasm, and anxiety is one of the most common psychological factors.[29]

One of the limitations of this study was that the interviews were face-to-face, which may have caused embarrassment, which in turn might have influenced the answers. Second, orgasm is a difficult variable to measure. Our previous experience on orgasm research has shown that illiterate women have great difficulty understanding what orgasm is and recognizing its signals. To overcome this problem, all data in this study had to be gathered through personal interviews so that the interviewer could answer any question that the subject had difficulty in understanding.

Third, the data about hormone therapy, psychological medicine and history of gynecological disorders were self-reported, which could have been affected by recall bias.

CONCLUSION

The prevalence of anorgasmia is high in Hesarak, Iran. Some socio-demographic and psychological factors have a strong relationship with anorgasmia. It seems that sexual education for couples before and after marriage is a necessity in Iran.

Conflict of interest: There is no conflict of interest.

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