



Early Maladaptive Schemas, Sexual Self-esteem, and Anxiety in Women with Orgasmic Disorders

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Received 2020 August 18; Revised 2021 April 26; Accepted 2021 June 22.

Abstract

Background: Individual factors that can lead to psychological disorders, including early maladaptive schemas, sexual self-esteem, and anxiety, and their impact on the female orgasmic disorder (FOD), has not yet been thoroughly examined.

Objectives: The purpose of this study was to compare these factors in women with FOD to those without the condition.

Methods: This descriptive research was causal-comparative or ex post facto study, and the statistical population was two groups of married women aged 18 to 40 years. Out of 152 women who participated, 66 cases had FOD, and 86 cases had no FOD according to the cut-off scores of the Female Sexual Function Index questionnaire and based on the DSM5 criteria. The Young Early Maladaptive Schema questionnaire (YEMSQ) (1995), Zeanah and Schwarz's Sexual Self-esteem Inventory for Women (SSEI-W) (1996), and the Beck Anxiety inventory (BAI) (1988) were filled out by all the participants. An independent *t*-test at a significance level of $P < 0.05$ was applied to analyze the data using SPSS 24.

Results: The results indicated that the mean scores of women with FOD were significantly higher in all schema areas than the mean scores of women without FOD ($P < 0.001$), and the mean scores of women without FOD were significantly higher on the sexual self-esteem scale and all its sub-scales than those with FOD ($P < 0.001$). Also, the mean anxiety scores of women with FOD were significantly higher than the mean scores of women without FOD ($P < 0.001$).

Conclusions: These results support the differences in individual psychological factors among women with FOD and those without and can be used for education, prevention, evaluation, and treatment of orgasmic disorders.

Keywords: Anxiety, Early Maladaptive Orgasmic Disorder, Schemas, Self-esteem

1. Background

Sexual desires have always been a popular research area, and many biological, psychological, cultural, interpersonal, and personal growth experiences contribute to the determination of sexual behaviors and desires. Normal sexual behavior is when a woman and her partner engage in sexual arousal and intercourse voluntarily and experience sexual pleasure without negative emotions, such as guilt, fear, and anxiety. In general, the sexual response cycle in humans has four phases: desire, excitement, orgasm, and resolution (1). The female orgasm is usually defined as a combination of subjective experience and physiological changes occurring in the pelvic region and vagina (2). Sexual disorder means a person has dysfunction in one or more of the four phases or experiences pain during sexual intercourse. According to the diagnostic and statistical manual of mental disorders fifth edition (DSM-5), there are three types of sexual dysfunction for women: female or-

gasmic disorder (FOD), female sexual interest/arousal disorder (FSIAD), and genito-pelvic pain/penetration disorder (GPPPD). FOD is also referred to by other terms, such as anorgasmia or inhibited female orgasm, which includes problems with experiencing orgasm or a significant reduction in the intensity of orgasmic emotions (3). In a study, the prevalence of sexual dysfunction among women in Tehran was 31% in the cases evaluated, of which 33% was related to sexual dysfunction (lack of sexual desire), 25% was for orgasm disorders, and 45.5% was related to painful intercourse (4).

The structure of sexual desire involves both psychological excitement and biological drive, as well as an interpersonal and intrapersonal variable that regulates the threshold for sexual arousal related to excitement and orgasm (5). Over the past few decades, researchers have investigated the part of cognitive and emotional variables in sexual functions (6). It is assumed that these cognitive struc-

tures have an important role in determining sexual behavior; that is, how a woman interprets the sexual fields and how she can respond to them (7). As mentioned, interpersonal factors and growth experiences affect individuals' sexual behavior. A child's first interpersonal and developmental experiences are shaped by the family; thus, the family is a factor affecting someone's sexual desires and behaviors. Early dysfunction schemas are one of the factors that identify the family as the first community for a child (8). Young considers the schemas as the deepest cognitive structures and considers their formation and continuity in three situations: fundamental emotional needs, early childhood experiences, and emotional mood. Young et al. (cited in Hawke and Provencher) have identified 18 different EMSs that each have its proposed origin and a long-term effect (9).

Oliveira and Nobre (10) indicated that women with sexual problems have inflexible and unrealistic schemas that could be rooted in early maladaptive experiences, and these structures might be aggravated by negative sexual events and lead to negative views of yourself. Supporting the impact of schemas on sexual function, it has been noted that early maladaptive schemas can affect an individual's perceptions of different situations, including sexual life (11). Women with sexual dysfunction have more maladaptive schemas than other women (10).

Sexual self-esteem is the emotional responses of an individual to her thoughts, feelings, and sexual behaviors and reflects the factors that facilitate sexual interactions. Sexual self-esteem is a key aspect of a woman's sexual life and is not limited to her perception of her ability to attract a partner but rather a more general feeling about the sexual self-independence of actual interpersonal sexual experiences or performances. Calogero and Thompson (12) indicated that there is a positive and significant relationship between sexual self-esteem, sexual satisfaction, and sexual dysfunction. The results of the evaluation of a universal sample also revealed a relationship between low sexual self-esteem, dysfunctional sexual behavior, and sexual abuse, and sexual revictimization (13).

Sexual disorders and anxieties can be due to mood and anxiety and can cause aggravation (9). Some research has been conducted on the role of anxiety and other factors in the development of sexual functional disorders. A British study (n = 1498) reported that high levels of public anxiety are associated with lifelong mental health problems and poor orgasmic experiences (14). Also, anxiety sensitivity and trait anxiety were found to be correlated with the degree of sexual arousal reported by a person outside a laboratory environment (15). Satisfaction with sexual intercourse is one of the factors influencing the fulfillment of marital life and the degree of individual happiness. As sex-

ual problems today are somewhat highly prevalent, they can directly or indirectly affect many aspects of couples' lives (16).

In Iran, due to social taboos, research on sexual issues is not as common as in Western countries. However, limited research has shown that sexual issues among Iranians need to be addressed seriously. A study conducted on those referring to Judicial Complexes of Tehran due to a divorce request found that 66.7% of men and 68.4% of women were not satisfied with their sexual life with their spouses (17). Also, Hashemian et al. (18) showed that there is a positive relationship between early maladaptive schemas and sexual satisfaction in working women. Another research indicated a positive correlation between EMS and sexual dysfunction (19). Moreover, due to a significant increase in the number of people with sexual dysfunction in Iran, the epidemiology, etiology, and treatment of sexual dysfunction must be considered. Also, because culture has a significant effect on sexual behavior, therapists need to develop their own stereotypes, assumptions, and cultural beliefs for greater effectiveness (20). Although some studies have been conducted on sexual dysfunction, research on early maladaptive schemas, sexual self-esteem, and anxiety levels in women with FOD has not been adequately addressed.

2. Objectives

This study compared early maladaptive schemas, sexual self-esteem, and anxiety among women with FOD with other women without orgasmic disorders in order to clarify whether there are differences between the two groups in mentioned factors.

3. Methods

This descriptive research was a causal-comparative or ex post facto study that was done on two groups of married women aged 18 to 40 years. Cohen et al. (21) believe a sample size of 50 is enough for these kinds of studies. Also, some research that has been done in the same method in recent years was considered to estimate the minimum number of samples (8, 22).

3.1. Measurement Tools

The following tools were used to collect data:

Researcher-made demographic questionnaire: This was applied to collect required demographic information, such as age, duration of the marriage, type of marriage (i.e. traditional or non-traditional), level of education, and employment status (e.g. full-time, part-time, and housekeeper).

3.1.1. Female Sexual Function Index (FSFI) Questionnaire

The FSFI is a scale used to measure a woman's sexual function. It was developed and validated by a group of women with sexual arousal disorder (23). The cut-off score for the scale and sub-scales was as follows: total scale 28, sexual desire 3.3, mental stimulation 3.4, moist 3.4, orgasm 3.4, satisfaction 3.8, and sexual pain 3.8. Scores higher than the cut-off score represent good performance, and in this study, a Cronbach's alpha coefficient for the FSFI was 0.94.

3.1.2. Young Early Maladaptive Schema Questionnaire (YEMSQ)

This questionnaire is a self-reporting instrument used to assess the schemas. In 1995, the second edition of the Young Schema questionnaire short form with 75 items to measure 15 schemas was extracted, and this version was applied in this study. The schema domains are as follows: (1) Disconnection and Rejection, which include abandonment, mistrust/abuse, emotional deprivation, defectiveness/shame, and social isolation/alienation; (2) impaired autonomy and performance, which include dependence/incompetence; vulnerability to harm or illness, enmeshment/undeveloped self, and failure; (3) impaired limits, including entitlement/grandiosity and insufficient self-control/ self-discipline; (4) other-directedness, including subjugation, self-sacrifice, and approval-seeking/recognition-seeking; and (5) hypervigilance and inhibition, including negativity/pessimism, emotional inhibition, unrelenting Standards/hypercriticalness, and punitiveness. In the questionnaire, based on the description, the patient measures each item is scored on a six-point Likert scale with a score of 1 indicating total disagreement and 6 indicating total agreement. Three or four high scores (i.e., 5 or 6) in a schema means the schema exists in the patient. The reliability and validity of this scale have been demonstrated in numerous studies. The factor structure of this questionnaire was examined on 370 male students (24).

3.1.3. Sexual Self-esteem Inventory for Women (SSEI-W)

This 35-item questionnaire was developed to assess emotional reactions due to self-appraisal of sexuality (25). Cronbach's Alpha coefficient was 0.92 for the total scale, 0.84 for skill/experience, 0.88 for attractiveness, 0.80 for control, 0.80 for moral judgment, and 0.88 for adaptiveness. Questions are answered on a five-point Likert scale from 1 to 5 (strongly disagree to strongly agree), and items 4, 5, 9, 11, 12, 15, 16, 18, 19, 20, 21, 24, 25, 26, 27, 29, and 31 are reverse-scored. The questionnaire has five subscales that reflect the domains of sexual self-esteem: skill/experience, attractiveness, control, moral judgment, and adaptiveness. The total score of the scale is found by summing the

scores of the five domains, with a higher score indicating higher sexual self-esteem.

3.1.4. Beck Anxiety Inventory (BAI)

This scale was designed to measure anxiety using 21 items, each of which reflects a symptom of anxiety that people who are clinically anxious or in a state of anxiety can experience. Performing the scoring requires examining the list of symptoms, quantitative scoring the severity of each symptom over the past week, and marking the evaluations in four columns: not at all, mild, moderate, or severe with scores of 0, 1, 2, or 3, respectively. Because the total score of the anxiety experienced is determined from the total scores of each symptom, the range of scores is from 0 to 63, with the higher scores indicating more severe anxiety. Thus, 0 to 21 represents very low anxiety, 22 to 35 moderate anxiety, and above 36 high anxiety requiring follow-up and treatment (26). In this study, the Cronbach's Alpha for the BAI was 0.89.

3.2. Procedure

Participants in the study were women aged 18 to 40 living in Tehran who had been married for at least six months. A total of 152 women participated in this study. Two groups were considered, one clinical group including 66 women with sexual dysfunction and one group including 86 women without sexual dysfunction. Participants in the clinical group were married women referring to psychosomatic clinics at Roozbeh and Mostafa Khomeini hospitals, the psychosomatic clinic of the Imam Khomeini Hospital. These participants were diagnosed with anorgasmia according to cut-off scores of the FSFI and based on the DSM5 criteria. Participants who had no sexual intercourse for four weeks or more (21 people) were excluded and did not receive questionnaires. The sampling was conducted from the beginning of March to the end of July 2017, and 66 of the women with orgasmic disorders who met the inclusion criteria and were interested in participating in the study were selected as the samples in the clinical group. The purpose of this study was explained to them, and a consent form was signed by participants. Also, they were given the opportunity to leave the study at any stage. In a private space, they were provided with questionnaires to complete.

In the same period, 86 other women who wished to participate in the study were selected for the control group. Although a non-random sampling method was used to select the participants of the control group, they were selected from different areas (north, south, west, and east) of Tehran that were randomly selected. In these areas, several public places were randomly selected to provide the questionnaire. Similar to the clinical group, the purpose

of this study was explained to them, and a consent form was signed by participants. Also, they were given the opportunity to leave the study at any stage. Initially, they were given FSFI, and those with a score lower than the cut-off point entered the control group and answered other questionnaires. The questionnaires were provided to them privately, and they returned them to the researcher manually or by email. None of the participants in the study were paid.

3.3. Inclusion and Exclusion Criteria

The inclusion criteria were married women aged 18 to 40 years and being married for at least 6 months. The exclusion criteria included the use of contraceptives for the past 6 months, history of any sexual disorder other than FOD, alcohol and drug addiction, history of psychiatric hospitalization, history of genital surgeries, such as labiaplasty and perineorrhaphy, anxiety disorders, and depression, and taking anti-anxiety and anti-depressant drugs during the last 6 months.

3.4. Ethical Consideration

Participants were given the information that ethically needed to be aware of before entering the research process. Consent and willingness to participate in this study were two main factors in selecting participants. They were assured that their information would be completely confidential and that they could withdraw from the research at any stage they lost interest in. The researchers also made sure that participating in the study would not harm participants in any way.

3.5. Statistical Analyses

The data were analyzed by SPSS 24 software. The obtained data were analyzed at two levels, descriptive statistics and inferential statistics. For descriptive statistics, frequency, mean, and standard deviation of data were presented, and for inferential statistics, an independent *t*-test was used. Cronbach's alpha was also used to measure the internal consistency of the questionnaires.

4. Results

The subjects of the study were 152 women in Tehran province, of whom 43.3% (66) were women with orgasmic disorders, and 56.6% (86) had no disorders. Their ages ranged from 18 to 40 years, with an average of 31 years for women with an orgasmic disorder and 30 years for women without. The descriptive characteristics of the marriage age of individuals in the studied groups are shown in [Table 1](#). There was no significant difference between the groups

in terms of age ($t = 0.989$, $P = 0.342$) and education level ($t = 0.107$, $P = 0.915$).

[Table 2](#) represents the descriptive indices of the schema domains of individuals in the studied groups. As shown, the mean value of all domains of early maladaptive schemas in women with FOD was higher than that of women without it ($P < 0.001$). In all subscales of sexual self-esteem, the mean scores of women in the control group were higher than women with FOD ($P < 0.001$). In addition, the mean anxiety in women with FOD was higher than other women ($P < 0.001$).

To manage these hypotheses, the information obtained from the study was analyzed using the independent *t*-test. For this test, the presumption of normality of the data was examined by the Kolmogorov-Smirnov test, and the distribution of data was normal in all scales and subscales. However, Levene's test did not confirm the homogeneity of variances. In order to test the research hypotheses, an independent *t*-test was used.

[Table 3](#) represents the results of the independent *t*-test, which revealed significant differences between the groups in terms of the mean scores of the schema domains and indicated that women with FOD had higher scores in all five domains than the controls. The *t*-test also indicated that in all subscales of sexual self-esteem, women without FOD had higher scores than those with FOD. Based on the results of the independent *t*-test, there was a significant difference between the groups in terms of overall anxiety, with women with FOD having higher anxiety scores than other women ($P < 0.001$).

5. Discussion

There was a significant difference between the two groups in all domains of early maladaptive schemas, with women with FOD having more schemas overall. The differences from highest to lowest were: (1) Disconnection and rejection; (2) impaired limits; (3) hypervigilance and inhibition; (4) other-directedness; and (5) impaired autonomy and performance. These results are similar to those of Oliveira and Nobre (10), who determined that women with sexual dysfunction have significantly more early maladaptive schemas in the domains of impaired autonomy and performance, especially in the schemas of failure, dependence/incompetence, and vulnerability to harm or illness. There are also numerous psychological factors involved in female orgasmic disorders, including fear of rejection by a sexual partner, vaginal injury, hostility towards men, and guilty feelings about sexual impulses. For some women, orgasm means loss of control or aggressive, destructive, or violent behavior, and these fears can be constraints to stimulation or orgasm. Many women believe that sexual plea-

Table 1. Marriage Age of the Subjects in the Studied Groups

Group	6 Months-2 Years	2 - 5 Years	5 - 10 Years	More Than 10 Years
Clinical group	15	11	19	21
Control group	13	18	30	25
Total	28	29	49	46

Table 2. Descriptive Indices for the Schema Domains, Sexual Self-esteem, and Anxiety in the Studied Groups^a

Variable	Group	
	Control, Mean ± SD	Clinical, Mean ± SD
Schema domains		
Disconnection and rejection	40.52 ± 13.76	62.31 ± 24.21
Impaired autonomy and performance	29.48 ± 11.07	39.75 ± 16.74
Impaired limits	22.83 ± 7.94	31.74 ± 9.76
Other-directedness	21.32 ± 8.66	29.62 ± 11.28
Hypervigilance and Inhibition	23.36 ± 9.21	32.46 ± 10.65
Sexual self-esteem		
Skill/experience	25.18 ± 3.28	21.34 ± 4.35
Attractiveness	26.00 ± 5.28	20.98 ± 6.25
Control	25.18 ± 3.74	21.00 ± 4.30
Moral judgement	28.86 ± 3.81	25.28 ± 4.67
Adaptiveness	25.11 ± 3.71	19.01 ± 4.69
Anxiety		
Beck anxiety score	13.37 ± 8.53	19.00 ± 11.51

^aP < 0.001.

Table 3. The Results of Independent t-test^a

Variable	t	Clinical, Mean ± SD	Control, Mean ± SD
Disconnection and rejection	6.546	62.318 ± 2.980	40.523 ± 1.484
Impaired autonomy and performance	4.311	39.757 ± 2.061	29.488 ± 1.194
Impaired limits	6.197	31.742 ± 1.202	22.837 ± 0.856
Other-directedness	4.956	29.621 ± 1.388	21.325 ± 0.934
Hypervigilance and inhibition	5.535	32.469 ± 1.311	23.360 ± 0.993
Skill/experience	5.974	25.186 ± 3.281	21.348 ± 4.355
Attractiveness	5.065	26.00 ± 5.289	20.984 ± 6.576
Control	6.399	25.186 ± 3.746	21.00 ± 4.303
Moral judgement	5.190	28.860 ± 3.810	25.287 ± 4.673
Adaptiveness	8.679	25.116 ± 3.711	19.015 ± 4.695
Anxious	3.330	19.00 ± 11.513	13.372 ± 8.536

^aP < 0.001.

sure is not a natural right of respectable women (1). This hypothesis proposes that these fears are due to schemas formed over the course of individual evolution, and the ba-

sic emotional needs of childhood have not been properly met. These needs include a secure attachment to others, freedom to express healthy needs and emotions, and the

need for spontaneity. It appears that when schemas are formed unconditionally on the basis of unfulfilled needs, spontaneous action or free expression of the needs is suppressed after evolution. Unconditional schemas develop as cognitive, behavioral, and emotional patterns in adulthood, and these can affect the psychological aspects of the orgasmic disorder. However, memories and physical feelings are also part of the schema that when it is reactivated, these are enabled and can affect the physical aspect of the orgasmic disorder.

There was a significant difference between the two groups in terms of sexual self-esteem, with women without FOD having more sexual self-esteem than those with the disorder. The differences between the groups in the five subscales of sexual self-esteem from highest to lowest were adaptiveness, control, skill/experience, moral judgment, and attractiveness. Although research on the relationship between sexual self-esteem and orgasmic disorder has not yet been conducted in detail, some investigations have explored the impact of sexual self-esteem on sexual issues. The overall results are similar to those of this research and are discussed below.

There was a positive and significant relationship between sexual self-esteem and its components (i.e. skill/experience, attractiveness, control, moral judgment, and adaptiveness) and marital satisfaction (27). Also, there was an increase in sexual function and satisfaction in people with low self-esteem (14). It was reported that sexual self-esteem was a unique predictor of sexual communication in intimate relationships with higher overall self-esteem (28). Damaged sexual self-esteem can be severe and disabling and reduce a person's perspective of life gratification, the capacity to feel pleasure, the passion to connect with others, and the ability to communicate (16). This hypothesis suggests that when exposed to or engaged in sexual activities, thoughts, and feelings, women with low sexual self-esteem perceive themselves as sexual creatures through a negative filter, and the behavioral representation of this negativity is sexual dysfunction and difficult sexual interaction. When exposed to or engaged in sexual activities, women with the orgasmic disorder often have negative perceptions of themselves, including a lack of skills regarding orgasm, minimal sexual attraction for a sex partner, inability to direct emotions during sexual intercourse, feeling the difference between moral standards and sexual desires, and a mismatch between her desires and what she exhibits. As a result of these negative perceptions, sexual cycle stages for these people are often difficult to determine.

Also, a significant difference was observed in the levels of anxiety between the groups and the level of anxiety of women with FOD was higher than that of the controls.

The relationship between anxiety, sensitivity, and sexual dysfunction in women is a common genetic component (17). This was similar to the results of a study, which associated the main factors of male sexual dysfunction with their views on sexual relations, conflict in relationships, and performance anxiety, and also found that the main causes of dysfunction for women include their attitudes toward sexual relationships, the quality of relationships, and performance anxiety (29). These results indicate that performance anxiety plays a significant role in the creation and maintenance of sexual dysfunction in both genders. This hypothesis also asserted that women with orgasmic dysfunction who are exposed to sexual activities likely assume a relatively high level of deterioration and underestimate their ability to cope with the situation, both of which can influence personal sexual functionality (29). It is notable that disorders in these individuals often trigger anxiety, and determining the type of causal relationship between the factors requires further longitudinal research.

Limitations of this study include not considering the purposive and convenient sampling methods, which means that generalizing the results should be done carefully and also not investigating factors related to spousal and sexual relations. Most participants in both groups had above the average education; therefore, generalizing the findings to people with less education should also be done with caution.

5.1. Research and Applied Recommendations

Only individual factors were investigated in this study; thus, spouse-related issues, different sampling methods in other populations, and controlling education levels should be explored in future research. It would also be helpful to compare the results of women and men with sexual dysfunction. Confirmation of the hypothesis that early maladaptive schemas in women with FOD are more likely than other women and evaluation and treatment protocols for the schemas would also be beneficial. In addition, the higher sexual self-esteem of women without FOD, as it is related to better education in late childhood and early adolescence (age of self-esteem formation) in both home and school, and their positive self-assessments and formation of sexual identity should be further explored. Furthermore, considering the differences in the degree of anxiety of the two groups, therapists and counselors should further investigate the effect of anxiety factors on people's lives.

Footnotes

Authors' Contribution: Shirin Mohammadi conducted the research under the supervision of Ahmad Borjali,

Firoozeh Raisi was the advisor of the research, and Navid Yousefi revised the final draft.

Conflict of Interests: We have no conflict of interest to declare.

Funding/Support: This study was entirely self-funded by the authors.

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