COMPARISON OF PAIN CATASTROPHIZATION AND INTIMACY BETWEEN FEMALES WITH AND WITHOUT DYSPAREUNIA WHO PRESENTED TO PROFESSIONAL CLINICS FOR WOMEN HEALTH

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Abstract

Objective: One of the clinical issues in patients is pain. Dyspareunia is a common disabling condition in females and affects two-thirds of women in their life. Dyspareunia is a psycho-physiologic state which for its diagnosis both physical and psychological factors should be considered. One of the most important improper confronting ways in presence of Dyspareunia is pain catastrophization. This study was done to compare pain catatsrophization between females with and without Dyspareunia who presented to governmental specialty clinics for women health in Sari, Iran.

Methods: Eighty-six females with age range of 18-48 years who suffered from Dyspareunia who presented to specialty clinic of Imam Khomeini Hospital and Tooba Specialty Clinic were selected randomly. Forty-three females were studied using Pain Catastrophizing Scale (PCS) and Intimacy Scale (IS) Forty-three females who did not suffer from Dyspareunia and were matched to the first group regarding age and educational level and comprised control group.

Results: In comparing females with and without Dyspareunia, mean PCS was 30.51 (11.9) in patient group and 20.72 (11.31) in control group. Mean scores of mental rumination (2.74 (±0.98) in patients and 2.04 (±0.92) in controls), magnification (2.18 (±1.13) in patients and 1.67 (±1.12) in controls), helplessness (2.17 (±0.99) in patients and 1.26 ± (0.9) in controls) showed significant difference between the two studied groups. Among indices of pain catastrophizationb in patient group, mean scores of mental rumination, magnification, and helplessness were higher than in healthy control group (P< 0.05). While there was no significant difference in intimacy scores between patient and healthy groups, there also found no significant correlation between catastrophization and intimacy in healthy women (r = -0/126) and patients (r = -0/213) (P< 0.05).

Conclusion: This study showed that pain catastrophization and its indices were higher in females who suffered from Dyspareunia than in healthy ones. Regarding the high frequency of pain catastrophization, depression, and anxiety in females with Dyspareunia, the necessity to provide psychological interventions provided by psychiatrists and psychologists in specialty clinics for women health.

Keywords: Pain Catastrophizing, Dyspareunia, Intimacy, Sexual Dysfunction.

1- INTRODUCTION

Dyspareunia means pain arising during sexual intimacy. If pain develops even after partial penetration inside vagina, it may be caused by impaired lubrication by vaginal discharges due to sexual aversion or inadequate intimacy or the presence of painful scars (1). Pain during intercourse is a type of sexual dysfunction (2). Sexual dysfunction is accompanied usually by other psychiatric disorders such as depression, anxiety disorders, personality disorders and schizophrenia. In most cases, the diagnosis of sexual dysfunction is made with another psychiatric disorder, but in some cases sexual dysfunction is one of the symptoms or signs of a psychiatric disorder (3). Responsible causes for Dyspareunia include Psychologic and physical causes. Psychologic causes include developmental factors like the attitude of a person towards sex, traumatic causes such as sexual or emotional abuse and communicational factors including resentment towards sexual partner (4). The rate of Dyspareunia is not clear. In most cases, dynamic causes are considered causative (3).

In addition to the frequency of 12-21% of Dyspareunia, this condition can affect sexual function of patients, psychological health, and quality of life (5). Studies have shown that the pain which females experience during intercourse is affected by other sexual and non-sexual aspects of their life. Pain experience without appropriate diagnosis and treatment by health care providers may affect patients and their sexual partners with different degrees (6). Nowadays, mutual effect of physical maladies and psychological disorders is the focus of many research studies in medicine and psychiatry.

Pelvic pain which commonly affect sexual and genital health of females is diagnosed improperly and is most often maldiagnosed or ignored (7). On the other hand, women may feel shameful to state their sexual problems. For example, a patient with sexual complaint may state that she has anxiety, depression, sleep disorder or symptoms related to her genitalia (1). There is limited information about etiology of sexual pain and most studies have implicated physical complaints instead of psycho-social variables which can aggravate the condition (8). A gynecologist in Canada has stated that various forms of sexual complaints have been assessed but none of them originated from physical illness. But most patients still feel that they should use physical complaints as an indication to visit doctors (9). Therefore, since pain is a multidimensional experience, it should be assessed in different areas including medical-biologic and psycho-social aspects (8).

Undoubtedly one of the most comprehensive findings in association with contemporary psychology studies is pain catastrophization. Pain catatsrophization is described as a type of cognitive distortion (10) and points to an exaggerated state relative to stimulus negative state. Therefore, pain catatsrophization is an important cognitive and exciting factor in pain experience (11).

Catastrophization is categorized as an incompatible strategy in confronting pain and is a negative emotional-cognitive process which includes magnification of symptoms related to pain, disability, pessimism, and mental obsession (12).

Pain catatsrophization has three components:

1) Thinking about pain (pain attention and concentration process)

2) Magnification or exaggeration of pain and tendency towards exaggerating negative consequences of pain

3) Disability (the rate of disability which is experienced during pain) (11).

The association between catastrophization and pain has gained much attention in recent studies (13). Catastrophization has association with pain regarding etiology and the results support its causative nature and predictability of catastrophization (15). Researches realized that low mind fullness may be a pre-requisite in pain catastrophization (10). The concern produced with intervening an automatic process causes change and inattention at that specific time and hence people usually get mental rumination about pain and this leads to exaggeration of their situation (14).

The cycle in which pain causes psychologic pressure (it depends that the patient experienced which conditions previously such as depression, anxiety and rage) and each factor may aggravate pain and this added pain causes more psychologic pressure and tension, and the cycle goes on (14). In Sullivan et al. study, they reported that catastrophization is a good predictor for pain severity and the way to adjust it and seems to be more appropriate than other variables in determining probable disability. Salivan stated that the probability of disability and depression in those who scored higher than 30 is more likely than others and necessitates psychological interventions (14). Studies among anxious people showed that these persons had increased catastrophization, stress, depression, less control on pain and disability feeling in pain

reduction (16). Rafiee et al. reported that there is significant difference regarding depression and pain catastrophization between females and males (17). Sadeghi et al. showed that catastrophization is more common in females than in males and regarding subscales, mental rumination and helplessness were more common in females (18).

Dixon et al believe that the association between pain and catastrophization may be mutual (i.e., catastrophizing thoughts affect pain perceptions and that affects catatsrophizing thoughts mutually) (19).

Buenaver et al. reported that people who use more pain catatsrophization usually think more about it and their cognitive-physical function is disrupted via pain prediction (12).

David et al. in a research study titled “the response of brain cortex to pain in healthy people” showed that pain catastrophization has role in progression or continuation of chronic pain (20).

Lamont showed that Dyspareunia in females causes interpersonal problems and those women who suffer from this condition experience despair and frustration. This would result in losing self-confidence, feeling of rejection by spouse, and losing intimacy and the relation between them (9).

Sexual pain disorders such as dyspareunia are very sensitive issues, as the pain involves emotionally charged behaviors: sexual intimacy and vaginal intercourse (21-23). Most patients have been denied for years that their pain was real, and therefore feel enormously relieved when they finally meet a clinician who trusts their symptoms and commits him/herself to a thorough understanding of the complex etiology of their sexual pain (24).

Intimacy, denoted by a shared feeling of acceptance, trust, commitment, and tenderness is crucial for successful long-term relationships and marriages. Expressions of tenderness both physically (hugging, holding hands, cuddling) and verbally are part of intimacy in long-term sexual relationships. There is consensus that intimacy is a very important part of long-term romantic relationships (25). After reviewing the descriptions of intimacy in the literature, Moss and Schwebel defined intimacy as including: (a) commitment, (b) affective intimacy,(c) cognitive intimacy,(d) physical intimacy, and (e) mutuality. Others include various aspects of self-disclosure within the intimacy construct (26).

Clinical reports make reference to the devastating impact that dyspareunia has on intimate relationships (21-24). Despite having theoretical and intuitive draw, surprisingly little research has systematically examined the sexual relationships of women with dyspareunia. Of the existing research, evidence regarding decreased relationship adjustment is mixed (27): several studies have found no differences in relationship functioning and intimacy between women with dyspareunia and control women (12, 21-24), whereas others report less relationship satisfaction among affected women (28, 29). These findings may be related to feelings, on the part of the women with dyspareunia, that their partners are less sexually satisfied (9, 28) and they themselves are less sexually desirable to their partners (7). In addition, pain severity and relationship adjustment appear to be differentially associated: Meana et al. found that affected women who reported better relationship adjustment also reported less pain (30). The link between dyspareunia and marital intimacy is likely complex and moderated by several factors, many of which have yet to be investigated empirically.

During the last 25 years, numerous studies have been done about Dyspareunia. Most of these studies have been reported in obstetrics and gynecology journals and few have been reported in psychiatry journals (9). In this study we decided to assess some psychological causes of Dyspareunia.

2- MATERIALS AND METHODS

Study population of this cross-sectional study consisted of 86 females who presented to specialty clinics for women health of Imam Khomeini Hospital and Tooba Clinic in Sari, Iran. The women who desired to participate at the study were selected. The married females who suffered from Dyspareunia for more than 6 months, were not nursing, and were not taking tricyclic antidepressants (TCAs) were studied. Those whose Dyspareunia was revealed to be due to physical conditions by examination were excluded. Of 86 females, every other subject was excluded and finally 43 subjects were entered into the study. Forty-three females who did not have Dyspareunia were matched regarding age and educational level with the case group (control group).

Data gathering tool was by filling out standard questionnaires by the patients. Here, pain catastrophization scale (PCS) was used. The English version of this tool was invented by Professor Sullivan in 1995 and was normalized in Iran. This questionnaire is a 13-question tool for measuring catastrophization. Patient responds to its questions according to his/her mental process. The score range is from 0 to 25 (18). Based on the guidelines of PCS, the attendants are asked to state painful experiences they have had. They are asked to

determine the severity of any 13 thoughts or feelings who have been experienced by a 5-part scale as 0 indicates never and 4 indicates always. PCS ended in access to a major scale and three minor scales which dealt with thinking about pain, pain magnification, and helplessness (31). The answers of participants are categorized according to three scales of mental rumination, magnification, and helplessness. Its reliability in Iran has been reported as 0.87 (32).

IS has 17 questions and can be used to calculate the affection and intimacy by Walker and Thompson. This scale is only a part of another bigger instrument which includes several aspects of affection but it can be used on its own to calculate the intimacy between the couples. The ratings is based on Lickert in a range of 1 (never) to 7 (always). Higher scores show more intimacy. Walker and Thompson, determined the final coefficient of this questionnaire to be somewhere between 0.91 – 0.97. Face and content validity wear also have been used to check its value (33). For this purpose, some psychology and counseling professors examined this questionnaire and expressed that it can calculate the intimacy among the couples. Etemadi calculated the final coefficient of this scale using Cronbach's Alpha Model to be 0.96. In the present study, Cronbach's Alpha Model was also used to determine the final coefficient of this scale. It was determined to be 0.96 (34).

In this research, statistical analyses were done by SPSS software (ver. 15.0). For descriptive variables, mean, standard deviation, and frequency rate were used. For comparing quantitative variables, the student t-test and Pearson correlation was applied.

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3- RESULTS

In this study, the age range of the subjects was from 31 to 35 years in case group and 20 to 30 years in control group. The educational level of both groups was at the high school diploma level or lower levels. The student t-test results showed that pain catasrophization and its components (mental rumination, magnification, and helplessness) in those with Dyspareunia were higher than in control group (Table 1). The frequency distribution of pain catastrophization was higher in case group than in control group. Frequency of Dyspareunia was higher in those who had been sexually abused in childhood than in others. The frequency of Dyspareunia was fewer in those who had married life information before marriage. The frequency of primary Dyspareunia was 39.5%. The frequency of depression and anxiety in those with Dyspareunia was higher than other diseases (Table 2).

4- DISCUSSION

This study showed that there is difference regarding pain catastrophization and its components (mental rumination, magnification, and helplessness) between females with and without Dyspareunia. The high frequency of pain, depression, and anxiety in the group with Dyspareunia necessitates psychiatric interventions. Pain catastrophization is one of the most important psychologic factors in pain prediction and is associated with increased pain, anxiety, distress, negative emotional processes, and helplessness (35, 36). Negative excitements like pain causes anxiety. Anxious people usually experience cognitive failures, one of them being pain catastrophization. Upon facing with sexual function stimuli feel anxious and as a result of this anxiety their attention is differed and therefore have problem in sexual stimulation phase and feel disable. As mentioned earlier, pain causes fear and fear from pain can create anxiety and distress in the subject. Chronic pain results in catastrophization and affected people apparebtly have mental rumination about problems and magnify it. Such changes aggravate anxiety and physiologic processes Causes vaginal dryness and distort sexual function.

Cultural and training-related factors, disturbed relations in parents life, childhood sexual abuse and various psychologic factors such as depression and anxiety, feeling faulty, younger age at the time of marriage and lack of enough information about married life, dissatisfaction of spouse and fear of unsuccessful sexual relation and spouse treason can be anxiety-producing factors, decrease stimulation and followed by frustration.

Information about anxiety-producing factors, having a private place for intercourse and intimacy by the spouse and providing necessary information during treatment course can be effective methods in decreasing problems associated with Dyspareunia.

Despite a long time passes to complete the questionnaires and waiting time to be interviewed, we did not able to gather more information about characteristics of the spouses and having private place for married life

relations.

5- CONCLUSION

In search done, no study was found with the title of pain catatsrophization in gynecologic diseases and Dyspareunia. This topic is a multi-disciplinary research and gynecologists, midwives, psychiatrists, psychologists, and consultants face such patients frequently. Medical aspects have been evaluated more than psychologic factors and limited studies have been done about psychologic factors.

It should be noted that catastrophization causes Dyspareunia and Dyspareunia itself causes catastrophization. Those who have mental rumination about pain deal with this condition for long times, and consider it unsolvable and consequently feel disable and disappointed. This anxiety as result of failure in sexual relations can help psychologic and physiologic factors contributing in Dyspareunia. Those with Dyspareunia experience anxiety upon intercourse due to mental background about pain. The same way, physiologic factors cause unprepared vagina. Psychologic factors such as anxiety result in cognitive distortion which is followed by catastrophization and lead to mental rumination, magnification, and helplessness.

Mental rumination of anxious person appears as involuntary and continuous penetration of thoughts in the form of personification or verbal self-talkativeness. These thoughts about potential physical or psychologic injury threaten the individual. Such thoughts form in a rapid way that the individual is unaware of them and only pay attention to this issue that a pervasive anxiety has affected him/her. However, these thoughts or mental images do not relate to only external situations. The individual misinterprets any physical symptom in a catastrophizing and exaggerating state (14).

It seems that Dyspareunia can cause anxiety and psychologic pressure in the individual which is followed by pain catatsrophization. Measures such as pre-marriage education and raising awareness about sexual intercourse such as enough intimacy by spouse and teaching necessary skills to the couples and help solve marital and familial conflicts can all help females with Dyspareunia. To achieve this goal and with respect to high frequency of pain catatsrophization and depression in patients with Dyspareunia and their need for psychiatric interventions, the need for attendance of psychiatrists and psychologists in specialty clinics for women health is becoming more prominent.

To date, it is known how partner-specific factors such as intimacy influence dyspareunia-affected couples, nor is it well understood how partner responses to the pain contribute to women's experiences with dyspareunia, or vice versa. However, recent evidence suggests that women who perceive their male partners to be more solicitous (i.e. more supportive or attentive) in response to the dyspareunia experience more intense pain during intercourse (32); although seemingly paradoxical, this is consistent with findings from the general chronic pain literature.

In this study particulars of spouse such as occupation, educational level, socio-economic status and physical as well as psychological factors were not evaluated. Having private plave for intercourse and the method of contraception which can have role in Dyspareunia were not evaluated as well. We recommend that these fators to be implicated in the future studies.

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Table 1. Comparison of mean and standard deviation of pain catastrophization, mental rumination, magnification, and helplessness between females with and without Dyspareunia in the age range of 18-48 years in Sari

	Case	Control	T	P value
Pain catatsrophization	30.51 (11.9)	20.72 (11.3)	3.911	< 0.001
Mental rumination	2.74 (0.98)	2.04 (92)	3.39	0.001
Magnification	2.18 (1.13)	1.67 (1.12)	2.07	0.041
Helplessness	2.17 (0.99)	1.26 (0.9)	4.49	< 0.001

Table 2. Comparison of pain catatsrophization, childhood sexual abuse, married life information prior to marriage, primary Dyspareunia and other conditions between case and control group

	Case	Control
Pain catatsrophization	51.2%	23.3%
Childhood sexual abuse	11.6%	2.3%
Married life information before marriage	34.9%	53.5%
Primary Dyspareunia	39.5%	-
Depression	23.3%	-
Anxiety	14%	-
Migraine	11.6%	-
Anemia	7%	-
Asthma	2.3%	-

Table 3. Comparison of mean and standard deviation of intimacy between females with and without dyspareunia

	Case	Control	T	P value
Intimacy	5.24 (1.25)	5.66 (1.03)	1.698	0.093

Table 4. Pearson correlation between intimacy and pain catatsrophization in females with and without dyspareunia

Group		Mean	standard deviation	T	df	P value
Case	Intimacy	5.24	1.25	- 0.213	41	0.169
	Pain Catatsrophization	30.51	11.9			
Control	Intimacy	5.66	1.03	- 0.126	41	0.42
	Pain Catatsrophization	20.72	11.3			

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