Araştırma / *Original article*

Attachment styles in women with vaginismus

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ABSTRACT

Objective: *Attachment styles reflect individual differences in beliefs about oneself and others, interpersonal functioning and close relationships. This study intended to investigate attachment styles of vaginismus patients.* ***Methods:*** *Our sample was included 56 patients with vaginismus and 51 healthy women. Golombok Rust Inventory of Sexual Satisfaction Scale (GRISS) and Relationship Scales Questionnaire (RSQ) were administered to the patients and healthy control group.* ***Results****: The scores of the vaginismus group for secure attachment scores were statistically significantly lower than the healthy control group while there was no difference between the groups for the fearful, preoccupied and dismissive attachment subscale scores. GRISS total and subscale scores were statistically higher in women with an insecure attachment style when the total sample as divided into two groups as secure and insecure attached individuals.* ***Conclusions:*** *These findings taken together support the notion that insecure attachment may be an important factor in the pathogenesis of vaginismus.* ***(Anatolian Journal of Psychiatry 2015; 16(1):37-43)***

Key words: *vaginismus, attachment, anxiety, pain*

Vaginismusu olan kadınlarda bağlanma stilleri

ÖZET

Amaç: *Bağlanma stilleri bireyin kendi ve diğerleri hakkında inançları, kişilerarası işlevleri ve yakın ilişkilerindeki bireysel farklılıkları yansıtır. Bu çalışmada vajinismus hastalarında bağlanma stillerinin araştırılması amaçlanmıştır.* ***Yöntem:*** *Örneklemimiz vajinismus tanısı konan 56 hasta ve 51 sağlıklı kadından oluşmaktadır. Hasta ve sağlıklı kontrol grubuna Golombok Rust Cinsel Doyum Ölçeği (GRCDÖ) ve İlişki Ölçekleri Anketi uygulandı.* ***Bulgular:*** *Vajinismus grubunda güvenli bağlanma puanları sağlıklı kontrol grubundan istatistiksel olarak anlamlı biçimde daha düşükken, korkulu, saplantılı ve kayıtsız güvensiz bağlanma alt ölçek puanları arasında fark yoktu. Tüm örneklem güvenli ve güvensiz bağlanan bireyler olarak iki gruba ayrıldığında, GRCDÖ toplam ve alt ölçek puanları güvensiz bağlanan kadınlarda daha yüksekti.* ***Tartışma:*** *Bu sonuçlar bir arada ele alındığında güvensiz bağlanmanın vajinismus pato-genezinde önemli olabileceğini desteklemektedir.* ***(Anadolu Psikiyatri Derg 2015; 16(1):37-43)***

Anahtar sözcükler: *Vajinismus, bağlanma, anksiyete, ağrı*

INTRODUCTION

Vaginismus is categorized as a sexual pain disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR).[1] The main diagnostic criterion was 'recurrent or persistent involuntary spasm of the musculature of the outer third of the vagina that interferes with sexual

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intercourse'. Vaginal muscle spasm defined as 'severe or long enough to cause pain'. An International Consensus Committee (ICC) for female sexual dysfunction (organized by the American Foundation of Urological Disease) has defined vaginismus as 'a woman's persistent or recurrent difficulties in allowing vaginal entry of a penis, a finger, and/or any object despite her expressed wish to do so' in line with criticisms of current DSM-IV-TR criteria.[2] The definition of dyspareunia reflects the possibility of pain precluding intercourse. The anticipation and fear of pain characteristic of vaginismus is noted while the assumed muscular spasm is omitted given the lack of evidence.[3] Binik has emphasized the difficulty of differentiating dyspareunia and vaginismus and suggested the common diagnostic category of genito-pelvic pain/penetration. Based on this rational, vaginismus and dyspareunia are combined under the title of the genito-pelvic disorders in DSM-5.

The anticipation and fear of pain has been noted as characteristic of vaginismus in many clinical descriptions.[4] There is often (phobic) avoidance and anticipation/fear/experience of pain, along with variable involuntary pelvic muscle contraction.[2] This phobic reaction makes attempts at coitus frustrating and painful. Anxiety sensitivity has an important role in pain-related fear and escape/avoidance with autonomic arousal.[5] Some psychophysiological data suggest that fear of penetration may cause a defensive contraction of the perivaginal muscles, leading to vaginismus.[6-10] These studies indicate that vaginismus is a defense mechanism that develops against sexual threats.[4]

Sexual intercourse, which includes physical and psychological closeness in its nature, is an important element of romantic attachment. The attachment style formed in the early stages of life is extended to adult close relationships and sexual systems.[11-13] Adult attachment also covers factors such as having sexual intercourse and possessing common goals.

Bowlby proposed that the attachment behavioral system is an innate psychobiological system related to the regulation of proximity-seeking behavior, which obtains protection and care from significant others.[14] Based on the pattern of caregiver responses during early interactions, the child develops specific internal mental models or schemas regarding himself/herself and others that form the basis of enduring strategies for need satisfaction and distress-regulation.[15] While internalized self-representations relate to the anxiety dimensions of attachment, representations of attachment figures relate to the attachment dimension of avoidance.[16] Bartholomew and Horowitz designed a 4-category model that also captures how people vary in terms of anxiety and avoidance; secure (low anxiety, low avoidance), preoccupied (high anxiety, low avoidance), dismissing (low anxiety, high avoidance) and fearful (high anxiety, high avoidance). Internal representations of close relationships depend heavily upon whether individuals have a secure or insecure (preoccupied, dismissing or fearful) attachment style. ''Secure" attachment, characterized by a positive model of self and others, has more adaptive implications in stressful conditions compared to any of the three insecure orientations.[17] Bartholomew et al. suggest that negative models of self have relatively strong associations with fear-avoidance variables.[18] Insecure attachment and associated maladaptive cognitions, behaviors and emotions precede many pathological conditions such as chronic pain.

Insecure attachment in healthy populations is associated with hypochondriacal beliefs, hypervigilance to pain, increased pain-related fears, poor pain coping and reduced pain threshold.[19-21] Andrews et al. determined that anxious, preoccupied/fearfully attached individuals feel a high intensity of pain while avoidantly attached (dismissing attachment) individuals feel a low intensity of pain.[22] Kozlowska and Mikail et al. proposed that the ways in which insecure individuals report on and communicate about pain to others contribute to the maladaptive coping seen in chronic pain samples.[23,24] Driven by a desire to have their attachment needs met, anxious (preoccupied) individuals are thought to actively focus on, or exaggerate, their pain in order to elicit comfort and support. Conversely, avoidant (dismissing) individuals inhibit the distress caused by pain as a way of minimizing dependence on others whose responsiveness they have learned to distrust. Fearful individuals are thought to be the least likely to report pain due to a heightened fear of proximity.

In the light of this clinical and theoretical knowledge, we wanted to test the hypothesis that insecure and fearful attachment would be observed more frequently in women diagnosed with vaginismus.

METHODS

The study subjects were 56 patients diagnosed

with vaginismus at the İnönü University Medical Faculty Psychiatry Outpatients Department and accepted participating in the study while the control group had 51 healthy females who had similar sociodemographic features (age, education, occupation) with the study group, who had no history of problems or pain with vaginal penetration and reported no sexual problems. Detailed gynecology examinations had been performed, vaginal spasm confirmed and other gynecological disorders that could cause symptoms similar to vaginismus such as vaginal septum, infection, etc. excluded.

DSM-IV-TR-based semi-structured interview administered by psychiatrist with clinical experience on sexual function disorders was used for all study subjects. According to the result of the clinical interview, the vaginismus diagnosis was made by this clinician. Subjects with an axis I diagnosis other than vaginismus in the vaginismus and control groups were excluded from the study following the psychiatric interview.

The control group inclusion criteria were the lack of any psychiatric or gynecological disease, experience of vaginal penetration without any difficulty, the lack of a history of chronic or recurring vulvar/vaginal/pain or difficulty with sexual intercourse, and the presence of vaginal intercourse within the last month.

Golombok Rust Inventory of Sexual Satisfaction, female version (GRISS), which is a sexual satisfaction scale, and the Relationship Scales Questionnaire (RSQ) were administered to the patients and the healthy control group in order to evaluate sexual function and problems and determine the attachment styles.

Golombok-Rust Inventory Sexual Satisfaction Scale (GRISS): This is a short, 28-item questionnaire that assesses the existence and severity of sexual dysfunction and quality of sexual relations.[25] It provides overall scores (for men and women separately) of the quality of sexual functioning within a relationship. In addition, subscale scores for impotence, premature ejaculation, anorgasmia, vaginismus, non-communication, infrequency, male and female non-sensuality, and male and female dissatisfaction, can be obtained. Individuals rate each item on a 0-4 scale. The Turkish version was reported to be valid and reliable for use in Turkey.

Relationship Scales Questionnaire (RSQ): This is a 30-item questionnaire developed by Griffin and Bartholomew to evaluate attachment styles in adults.[16] The validity and reliability study was done by Sumer and Gungor and the structural validity found to be high, with internal consistency coefficients of the subscales between 0.27 and 0.61, and the reliability coefficients of the test in all dimensions with the test-retest method between 0.54 and 0.78. It aims to assess attachment styles (secure, fearful, preoccupied and avoidant) by collecting different items. Participants grade each statement, and how this statement describes themselves or their attitudes in a close relationship on a 7-item (1=does not define me at all, 7=defines me completely) Likert type scale. Each of the four attachment styles is obtained by summing up the statements with the aim of measuring them and these totals are divided by the number items of the subscale (attachment style). Each participant is considered to have the attachment style in which she received the highest score.

The study was approved by the Medical Ethical Committee of Inonu University.

Statistical analysis

Statistical analyses were performed using SPSS 16. Descriptive statistics for numerical variables are given as mean and standard deviation, while numbers and percentages are given for categorical variables. The t-test (significance between two means in two independent groups) was used to compare means between two groups for continuous variables. Differences between categorical variables were determined with Pearson's, chi-square, and Fisher's exact tests. In view of the heterogeneity in variance, continuous variables were analyzed using the Kruskall-Wallis one-way analysis of variance by ranks. Differences between numerical variable groups were analyzed with the Mann-Whitney U test as the normal distribution requirement is not met in the presence of two groups. The Pearson product-moment correlation coefficient was used to analyze the relationship between the attachment styles and GRISS subscales for the study sample subjects $p<0.05$ was accepted as the alpha significance level in the analysis.

RESULTS

A total of 56 patients with vaginismus and 51 control subjects for a combined total of 107 individuals were evaluated in this study. No statistically significant difference was found between the patient and control groups in terms of age, education level, occupation and place of residence ($p>0.05$). Comparison of patients diagnosed with vaginismus and healthy control group

Table 1. Sociodemographic characteristics of patients with vaginismus and the control group

	Vaginismus (n=56)		Control (n=51)		
	n	%	n	%	p
Age range					0.096
Under the age of 20	8	14.3	2	3.9	
Between 20-30 age	39	69.6	35	68.6	
Over the age of 30	9	16.1	14	27.5	
Year of education					0.959
Between 0-5 years	5	8.9	5	9.8	
Between 5-10 years	9	16.1	9	17.6	
10 years and over	42	75.0	37	72.6	
Occupation					0.101
Housewife	33	58.9	31	60.8	
Teacher	12	21.4	5	9.8	
Medical staff	7	12.5	13	25.5	
Others	4	7.5	2	3.9	
Place of residence					0.373
City	47	83.9	47	92.2	
Town-County	6	10.7	2	3.9	
Village	3	5.4	2	3.9	

in terms of sociodemographic features are summarized in Table 1.

The Mann-Whitney U test was used to determine whether there was any difference regarding attachment style scores between the women with vaginismus and the healthy control group. The scores of the vaginismus group for secure attachment scores were statistically significantly lower than the healthy control group (p=0.041) while there was no difference between the groups for the fearful, preoccupied and dismissive attachment scores (p=0.071, p=0.14, p=0.114 respectively) (Table 2).

Table 2. Comparison of vaginismus and the control group in terms of attachment style scores

	Secure (Mean±SD)	Fearful Median (min-max)	Preoccupied Median (min-max)	Dismissive Median (min-max)
Vaginismus	3.93±1.34	4.0 (2.0-6.25)	3.87 (2.25-6.70)	4.0 (2-6.60)
Control	4.45±1.25	3.75 (1.70-5.75)	3.50 (2.0-6.20)	3.20 (1.60-6)
p	0.041*,+	0.071++	0.14	0.114

**: p<0.05, +: Shapiro-Wilk Test, ++: Mann-Whitney U Test*

Table 3. Comparison of securely and ınsecurely attachment styles in terms of GRISS

	Securely attached	Insecurely attached	p
GRISS total	3.40±2.00	5.38±1.55	0.001
GRISS frequency	4.17±1.70	5.05±2.30	0.036
GRISS communication	3.80±2.21	4.81±1.79	0.005
GRISS satisfaction	2.98±1.30	4.12±1.47	0.001
GRISS avoidance	3.76±2.05	5.14±2.12	0.001
GRISS touch	3.76±2.30	5.42±2.00	0.001
GRISS vaginismus	5.69±2.49	7.65±1.57	0.001
GRISS anorgasmia	3.48±1.17	4.36±1.22	0.001

Comparison of the two groups' findings regarding anxiety and avoidance in attachment with Pearson's chi-square test revealed chi square value of 6.99 (p=0.008). The difference is due to the vaginismus patient group with high anxiety levels.

GRISS total and subscale scores (frequency, communication, satisfaction, avoidance, touch, vaginismus, anorgasmia) were statistically higher in women with an insecure attachment style when the total sample was divided into two groups as secure and insecure attached individuals (p<0.05) (Table 3).

Evaluation of the relationship between attachment style scores and the GRISS total and subscale scores (frequency, communication, satisfaction, avoidance, touch, vaginismus, anorgasmia) with Pearson's correlation test showed a negative significant relationship between secure attachment scores and the GRISS total and subscale scores. There was also a positive significant relationship between the fearful attachment style scores and the GRISS anorgasmia subscores and a positive significant relationship between the dismissive attachment style scores and the GRISS total, GRISS satisfaction and GRISS touch subscores (Table 4).

Table 4. Relationship between GRISS total and sub-scale scores and attachment style scores

GRISS total	r=-0.444 p<0.001	r=0.134 p=0.170	r=0.089 p=0.363	r=0.254 p=0.008
GRISS frequency	r=-0.221 p=0.022	r=-0.081 p=0.409	r=0.141 p=0.149	r=0.096 p=0.323
GRISS communication	r=-0.227 p=0.019	r=0.138 p=0.155	r=-0.128 p=0.190	r=0.169 p=0.082
GRISS satisfaction	r=-0.388 p<0.001	r=0.103 p=0.291	r=0.094 p=0.333	r=0.297 p=0.002
GRISS avoidance	r=-0.267 p=0.005	r=0.027 p=0.738	r=0.010 p=0.918	r=0.131 p=0.180
GRISS touch	r=-0.256 p=0.008	r=0.072 p=0.461	r=0.049 p=0.617	r=0.191 p=0.049
GRISS vaginismus	r=-0.357 p<0.001	r=0.138 p=0.157	r=0.225 p=0.020	r=0.238 p=0.014
GRISS anorgasmia	r=-0.279 p=0.004	r=0.234 p=0.015	r=0.089 p=0.361	r=0.261 p=0.007

DISCUSSION

Establishing secure emotional bonds with others is one of the primary needs according to the attachment theory. Once the attachment style is determined as secure or insecure during infancy, it shows continuity throughout life.[26] Beginning with the study of Bowlby, the insecure attachment style has been thought to be a determinant of psychopathologies in the later stages of life whereas secure attachment has been related to healthy processes.[11,27] The relationship between insecure attachment and major depression, obsessive-compulsive disorder, chronic pain disorders, eating disorders, and social anxiety disorder has been shown in studies.[28-31] Our study reveals the relationship between attachment style and vaginismus.

Patients with vaginismus were found to be more insecurely attached, more anxious and fearful than the control group in our study. The markedly lower rate of a secure attachment style in women with vaginismus compared to the control group is consistent with the study by Çeri.[32] Çeri reported rates of 33%, 37.8%, 24.4% and 4.4% for secure, fearful, preoccupied and dismissive characteristics respectively in women with vaginismus. Similar findings were also found in disorders such as dyspareunia and vulvodynia that cause fear and avoidance from sexual intercourse due to pain.[20,33,34]

Numbers of both anxious-insecure and fearful-insecure subjects were found to be higher in the vaginismus group in our study. This shows once again the role of fear and anxiety in the etiology of vaginismus. Anxiety levels were found to be

high in patients with vaginismus.[35] Pelvic floor activity acts as a defense mechanism against a threatening stimulus.[7] According to Gray and McNaughton, anxiety levels lead to avoidance by switching on the fight-flight-freeze system (FFF) which is associated with a sense of fear even if threat stimuli are not yet present in the setting.[36] Anxiety, arising from the conflict of two different objectives (closeness and avoidance), activates the behavioral inhibition system (BIS) when the threat stimuli are encountered. On the one hand is the wish for intimacy and closeness, on the other is the fear of abandonment by a close and intimate person. The difficulty of being in a close relationship may activate a defense mechanism that is expressed by avoiding intimate relations due to the pain during intercourse. Thus, the process becomes a vicious cycle. Dyspareunia has been reported to represent a maladaptive solution to the closeness-avoidance conflict.[34]

According to the attachment-diathesis model, the insecure attachment style constructs included in fear-avoidance models of chronic pain is associated with a developmentally based origin of elevated fear of pain and decreased ability to internally manage the distress associated with pain.[37] Mikulincer et al. also proposed that persons with insecure attachment styles are more vulnerable to suffering from somatic symptoms and are more inclined to intensify their distress.[38] Kaya et al. found a link between anxiety, depression and sexual dysfunction in women with chronic pelvic pain.[39] It is noteworthy that feeling pain during sexual intercourse influenced the vaginismus subscale together with the communication subscale on the GRISS scale. It seems that sexual intercourse pain in women leads to vaginismus and also to a communication problem between the partners.

Another finding of our study was that the insecurely attached individuals among all women in the sample had a lower level of sexual satisfaction. Bowlby indicated that disruption of the feeling of secure attachment also hampers other activities of the behavioral system such as establishing emotional closeness with the opposite sex and caregiving.[40] The absence of reliance was found to be related with a lower level of satisfaction both in women and men while secure attachment provides a more comfortable and safer closeness in sexual intercourse.[33,37] Anxiously insecure attached individuals are reported to experience more negative feelings, and less arousal and satisfaction during sexual intercourse.[33]

One limitation of our study is that we did not use scales that had more detailed questions on the vaginal penetration fear of the patients and that could evaluate the anxiety level to differentiate vaginismus from dyspareunia. The study also contains potential biases due to the implementation of self-report measures.

The attachment styles of patients with vaginismus were compared with a healthy control group and a statistically significant difference was found between the vaginismus patients and the healthy group in terms of insecure attachment in this study. Insecure attachment and attachment anxiety appears to be an important factor in the etiology of vaginismus.

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