

RESEARCH

Relationship between Attachment, Emotion Regulation Process and Sexual Dysfunction Level: A Model Proposal

Bağlanma, Duygu Düzenleme Süreçleri ve Cinsel İşlev Bozukluğu Arasındaki İlişki: Bir Model Önerisi

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Abstract

From the beginning of adolescence, sexual life, which has an increasing importance in a person's life, is affected by psychological, sociological and biological factors. In this study, the role of emotion regulation processes and positive-negative experiences was tested with Structural Equation Models with Path Analysis to explain the relationship between insecure attachment patterns and sexual dysfunction that is frequently studied in the literature. The sample of the study consisted of 201 women, with 35 or above scores on the Golombok Rust Sexual Satisfaction Scale, whose ages range between 18 and 31 years. When the direct relationships were examined, women who had insecure attachment patterns and who had higher negative experiences had higher sexual dysfunction levels. In contrast, the increase in emotion regulation difficulties was related to a decrease of sexual dysfunction level. However, difficulties in emotion regulation processes were positively related to sexual dysfunction level when indirect and total effects were taken into consideration. In addition, the avoidant attachment pattern predicted sexual dysfunction better than anxious attachment pattern.

Keywords: Attachment, sexual dissatisfaction, emotion regulation, emotions.

Öz

Ergenlikten başlayarak kişinin yaşamında önemi gittikçe artan cinsel yaşam psikolojik, sosyolojik ve biyolojik temeli olan pek çok faktörden etkilenmektedir. Bu çalışmada alanyazında sıklıkla çalışılan güvensiz bağlanma örüntüleri ve cinsel işlev sorunları arasındaki ilişkiye açıklama getirmek için duygu düzenleme süreçleri ve olumlu-olumsuz deneyimlerin rolü Yapısal Eşitlik Modellerinden Yol Analizi ile test edilmiştir. Araştırmanın örneklemini yaşları 18 ile 31 arasında değişen, Golombok Rust Cinsel Doyum Ölçeği'nden 35 ve üstü puan alan 201 kadın oluşturmaktadır. Doğrudan ilişkiler incelendiğinde güvensiz bağlanma örüntüsü sergileyen kadınların olumsuz deneyimlerinin artması, cinsel işlev bozukluğu düzeyinin artması ile; duygu düzenleme güçlüklerinin artması ise cinsel işlev bozukluğu düzeyinin düşmesi ile ilişkili bulunmuştur. Fakat dolaylı ve toplam etkiler incelendiğinde duygu düzenleme süreçlerinde yaşanan güçlükler cinsel işlev bozukluğu düzeyi ile pozitif yönde ilişkilidir. Ayrıca, kaçınıcı bağlanma örüntüsü cinsel işlev bozukluğu düzeyini kaygılı bağlanma örüntüsüne kıyasla daha yüksek düzeyde yordamıştır.

Anahtar sözcükler: Bağlanma, cinsel işlev bozukluğu, duygu düzenleme, duygular.

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SEXUAL life is a complex phenomenon with psychological, social and biological aspects. The motivation of this complicated phenomenon is not only reproducing but also seeking safety, proximity and pleasure etc. (Schachner and Shaver 2004). Psychological and/or physiological factors sometimes cause problems in sexual life. As specified in the Diagnostic and Statistical Manual of Mental Disorders (DSM), sexual dysfunctions are defined as challenges in interpersonal relationships as a result of disturbances in sexual desires and psycho-biological changes in relation to sexual response cycles (Incesu 2004). Thus, challenges in sexual life are associated with not only biological problems in genital organs but also the psycho-social structure of the individual, the cultural customs and traditions as well as the religion and political factors (Incesu 2004, Kingsberg and Janata 2007).

Sexual life is an important part of romantic relationships. One of the factors which may affect sexual life in intimate relationships is attachment pattern (Brassard et al. 2007, Okci 2017). Attachment Theory is an approach describing the effect of emotional relationship between child and caregiver on lifelong development (Bowlby 1982). The theory initially concentrated on the relationship between caregiver and infant but in the later years, it was started to discuss that romantic relations could be handled within the framework of attachment theory were started under the leadership of Hazan and Shaver (1987). The authors suggested that the attachment patterns established depending on the quality of relationship with caregiver in early life continued similarly in adulthood and shaped perception of romantic partner (Hazan and Shaver 1987, Collins and Feeney 2004). Mikulincer and Shaver (2007a), among the most important researchers in this field, describe attachment patterns as a tool used to regulate the interpersonal relationships of an individual and discuss this process over "Control Systems Model". According to the model, responses to the attachment pattern also vary by relational threats. Accordingly, if an attachment figure is regarded as unavailable or unresponsive, anxious hyper-activation strategies or anxious deactivation strategies are activated. When the anxious hyper-activation strategies are used, attachment system remains continuously activated and can be promptly stimulated by the signals of attachment figure accessibility. In cases where the avoidant hyper-activation strategies are used, threats to the relationship with the attachment figure are suppressed or excluded from information processing processes (Mikulincer and Shaver 2007a). It is believed that these mental models affect the relationship expectations and goals and guide interpersonal interactions throughout life. Thus, it can activate the attachment mechanisms with the attachment figure being romantic partner in adulthood instead of mother in babyhood (Birnbaum 2010).

Based on the relationship between attachment and sexual life, it is suggested that these two systems instinctively shape human behavior (Diamond et al. 2007, Mikulincer and Shaver 2007b). For example, while the attachment, from an evolutionary perspective, aims to protect from hazards by the intimacy established with caregiver, the sexuality is a different behavior system that ensures the transmission of genes to next generations. Even though these two systems seem to be different behavior patterns, the couples generate mechanisms that promote physical intimacy and contact by attachment process to give care to their children and to protect them from hazards (Birnbaum 2010).

These strategies being associated with attachment pattern also affect sexual experiences and expectations. It is stated that in secure attachment, the positive perception towards ego and others generally facilitates couples to experience mutually deep and satisfying sexual relationship and enhance sexual satisfaction (Mikulincer and Shaver 2007). Also, it was found that securely attached individuals experienced more positive feeling after a sexual activity, had higher openness to sexual exploration and more enjoyed their sexual lives (Birnbaum 2010). Similarly, individuals with secure attachment pattern who seek to establish warm, loyal and satisfying relation with partners in romantic relationships prefer to use sexuality for the attachment to romantic partner (Davis et al. 2006). Insecure attachment pattern may affect feelings, relationship and communication with partner, restraining the relaxing and pleasure-giving nature of sexuality (Adams and Robinson 2001). For example, in the study by Brassard et al. (2007), it was stated that women and men with avoidant attachment pattern had less sexual intercourse desire, sexual satisfaction and sexual fantasies towards their partners. Also, individuals with avoidant attachment pattern stated that they used sexual experience to enhance their self-esteem and impress their peers, not to develop emotional intimacy or express their love for your partners (Schachner and Shaver 2004).

It was stated that individuals with higher avoidant attachment pattern than their partners put more pressure on their partners about the frequency of sexual intercourse (Brassard et al. 2007). The authors stated that the fact that partners with anxious attachment pattern use sexuality as a tool for meeting the proximity and assurance need prevents establishing a close relationship with partners with secure attachment pattern (Brassard et al. 2007). In the studies conducted in Turkey, there were findings showing that sexual dysfunction levels were higher in women with insecure attachment pattern as well as different findings on the relation with sexual dysfunction and attachment patterns were reached (Çakmak 2011, Kılıç 2017). For example, in a study where attachment patterns were compared, the anxious attachment pattern was higher in the women with vaginismus while the avoidant attachment sub-scale was found associated with other dysfunctions (Çakmak 2011). In another study, it was stated that the anxious attachment level significantly predicted the quality of sexual life while there was no significant relationship between the avoidant attachment pattern and the quality of sexual life (Küt 2018).

Although the relationship between attachment pattern and sexual problems has been frequently studied, the mechanisms of the relationship between these variables has not been well explained (Dewitte 2012). When reviewing the body of literature, one of the approaches suggested in limited number of studies is the view that emotion regulation processes may affect sexual life in relation to attachment patterns (Cole et al. 2004). Emotion regulation is a concept describing that the intensity, duration and expression style of an emotion being active depending on the current situation may vary by intrinsic motivations. The process of emotion regulation can be conscious or unconscious, and may cover the individual's own inner process as well as interpersonal relationships (Gross and Thompson 2007). Thus, proximity seeking in a relationship varies among individuals depending on their attachment periods or they may have different responses to threat perceptions depending on their emotion regulation skills (Cole et al. 2004). For example, a study found that in individuals with insecure attachment pattern, difficulties in emotion regulation processes were found associated with

difficulties in rejection sensitivity and fear of intimacy regulation processes (Elibol and Sevi Tok 2019). In the repeated studies on the relationship between attachment and emotion regulation, it was found that insecurely attached individuals used more non-functional coping strategies. It was stated that especially negative emotions were the case, insecurely attached individuals used less constructive emotion regulation and coping strategies, had more intense responses, it took longer for them to get out of this mood and into a neutral mood compared to securely attached individuals (Cabral et.al. 2012). It is argued that these non-functional coping strategies are associated with different psycho-pathologies. In the study by Çalışır (2009) on the relationship between attachment patterns, emotion regulation strategies and psycho-pathologies, it was stated that the anxious attachment pattern was associated with anxiety disorders and depressive disorders while the avoidant attachment pattern was associated with extroverted pathologies (Çalışır 2009). Similarly, it was found that in terms of positive affect, insecurely attached individuals were more likely to reduce their emotions in the face of positive occurrences and experiences. Also, it was stated that insecurely attached individuals thought less and made inferences about positive experiences compared to others (Gentzler and Kerns 2004). Thus, it is suggested that insecurely attached individuals may have difficulties in experiencing sexual pleasure and reaching sexual satisfaction due to not only their responses to negative emotions but also the difficulties they have in recognizing and enhancing positive emotions (Gentler and Kern 2004).

Consequently, emotion regulation skills shape the individuals' coping strategies for dealing with relational threats in relation to their attachment patterns and affect their sexual experiences (Birnbaum 2010). When the body of literature was reviewed, it was found that there were limited studies on emotion regulation processes in the relationship between attachment and sexual dysfunction level (e.g. Cohen and Belsky 2008). In the Turkish body of literature, there were studies on the relationship between attachment and sexual dysfunctions (Özcan et.al. 2015, Okci 2017, Küt 2018) however, a study describing the mechanism between these two factors was not found. Thus, in this study, the interrelationship between the difficulties in emotion regulation and the positive and negative emotion experiences and the attachment patterns which were suggested to likely affect sexual experience in which the individual was in close contact emotionally and physically was tested by using Structural Equation Method.

Method

Sample

The sample of the study consisted of students studying in the Departments of Psychology, Sociology and Philosophy in Hacettepe University in the fall semester between 2017-2018. Questionnaires distributed through communication groups were filled by 578 women. In line with the guidelines by the authors developed the scale, since those with a standard score of 35 or higher were called problematic group, the participants who scored less than 35, as a cut-off point over the total score, and were under the age of 18 were excluded from the analysis based on the exclusion criteria. The study was continued with 201 women after those who left empty 5% of the study questions and those who were excluded from the sample. The women's age ranged from 18 and 31

(Avg.=25.39, SD=5.49). 21.1% (N=42) of the participants were married and 78.9% (N= 157) were single.

Measures

Socio-Demographic Form

It was prepared to receive information from the participants about socio-demographic variables such as age, education level, marital status etc.

Golombok Rust Inventory of Sexual Satisfaction (GRISS)

The scale with separate forms for women and men was developed by Golombok and Rust (1986) to assess the quality of sexual relationship and the symptoms of sexual dysfunctions. The GRISS consists of 28 items scored on a 5-point Likert scale. Overall sexual function level is assessed on the basis of the total score as well as problems experienced in different aspects of sexual relationship can be also assessed on the basis of sub-scales. The obtained scores are converted to standard scores between zero and nine. Individuals who have a score of five or higher in each sub-scale after this conversion are deemed to have problem in that sub-scale. Those who have a score of 35 or higher out of the total score are considered as "problematic" group in terms of the quality and function of sexual relationship. Higher scores indicate more sexual function problems. In this study, the women's form was used. The women's form consists of seven sub-scales; avoidance, satisfaction, touching, intercourse frequency, vaginismus and anorgasmia. The Cronbach Alpha internal consistency coefficients of the sub-scales were found between .63 and .83. A score of five or higher in each sub-scale indicates a problem in that sub-scale. Turkish version of the questionnaire was developed by Tuğrul et al. (1993) and the Turkish form was stated to be valid and reliable.

Adult Attachment Style Scale (AASS)

The AASS consists of two parts. The first part was designed Hazan and Shaver (1987) to classify adults into three groups as secure, anxious/ambivalent, and avoidant based on the characteristics of parent-child relationship in childhood. The second part of the scale was developed by Mikulincer et al. (1990) to assess attachment patterns of individuals. The second part consist of 15 items scored on a 7-point Likert scale. The Turkish version of the scale's second part was developed by Sabuncuoğlu and Berkem (2006). Because the Cronbach Alpha values of the 15-item Turkish version were found low (.42) for secure attachment, it was revised by Kesebir et al. (2012) and it was transformed into an 18-item scale after unclear items were extracted. The Cronbach Alpha values of the sub-scales were found .72 for secure attachment, .82 for avoidant attachment and .85 for anxious/ambivalent attachment.

Difficulties in Emotion Regulation Scale (DERS)

The DERS was developed by Gratz and Roemer (2004) to assess difficulties in emotion regulation process. The scales consist of 36 items and six subscales (awareness, clarity, non-acceptance, strategies, impulse and goals) scored on a 5-point Likert scale. Higher scores mean more difficulties in emotion regulation processes. The Cronbach Alpha internal consistency value of the whole original scale was .93 and ranged from .88 to .89 for the sub-scales (Gratz and Roemer 2004). The Turkish version of the scale was developed by Rugancı and Gençöz (2010). The Cronbach Alpha internal consis-

tency coefficient of the Turkish version was .94 and the Cronbach Alpha values of the sub-scales ranged from .75 to .90. The test-retest reliability of the scale was found .83.

Scale of Positive and Negative Experience (SPANE)

SPANE was developed by Diener et al. (2010) to assess positive and negative feelings and to measure satisfying and not satisfying feelings as well as positive responsibility and physical gratitude. The scale consists of 12 items scored on a 5-point Likert scale, and positive and negative feelings can be scored separately and assessed as two sub-scales. Diener et al. (2010) found the Cronbach alpha internal consistency coefficient of the scale as .87 for positive experiences and .81 for negative experiences. Also, the relation of the SPANE with the Scale of Positive and Negative Emotions (Watson et al. 1988) and the Satisfaction with Life Scale (SWLS) (Diener et al. 1985) was reviewed and it was stated that the convergent validity was at a statistically acceptable level (cited by Diener et al. 2010). The Turkish version of original scale was developed by Telef (2015). The Cronbach alpha internal consistency coefficient of the scale was .88 for positive experiences and .83 for negative experiences.

Procedure

Before proceeding to data collection phase, necessary permissions were obtained from the Ethics Commission of Hacettepe University Senate with the document numbered 431-907 on 28.03.2017 in order to conduct the study. To reach the study sample, the studies who had education in different faculties at the level of bachelor degree at Hacettepe University in the 2017-2018 academic year and attended in Introduction to Physiology, Learning Physiology or Development Physiology classes were informed about the purpose of the study before the class, and online questionnaires were shared with the communication groups. The volunteers filled up the questionnaires after signing the informed consent form. In this study, the Golombok Rust Inventory of Sexual Satisfaction was used to assess problems in sexual relationship. When assessing the scale, both standard score and total score could be used as well as the scores of sub-scales could be calculated to determine the risk group to specific sexual dysfunction diagnosis. In this study, the total score of GRISS was calculated because it was aimed to test a model for describing the quality of sexual relationship and the sexual dysfunction level. Accordingly, those who had a standard score of 35 or higher, as a cut-off point of the scale, were included in the study to determine the "problematic group" in line with the guidelines by the authors developed the Golombok Rust Inventory of Sexual Satisfaction.

Statistical Analysis

Firstly, the study variables as attachment patterns, difficulties in emotion regulation and sexual dysfunction levels were compared between the group who had a standard GRISS (Golombok Rust Inventory of Sexual Satisfaction) score of 35 or higher and regarded as risk group in terms of sexual dysfunction and the women who were excluded from the study sample. According to the analysis results, a significant difference in the scores of sexual dysfunction level [$F(1, 489) = 8.76, p < .005$], difficulties in emotion regulation [$F(1, 488) = 42.66, p < .001$], avoidant attachment patterns [$F(1, 488) = 6.31, p < .05$] and secure attachment patterns [$F(1, 488) = 3.77, p < .001$] was found between those who had a standard GRISS (Golombok Rust Inventory of Sexual Satisfaction) score of 35 or higher and those who had a standard GRISS score of lower than 35. Based on

the results, sexual dysfunction, difficulties in emotion regulation and avoidant attachment pattern levels were higher in the women who had a standard GRISS score of 35 or higher compared to those who had a GRISS standard score of lower than 35. Average values and standard deviation values of the variables are given in Table 1.

Table 1. Average values and standard deviation values of the study variables of those who had a standard GRISS score of 35 or higher

	standard GRISS score <35			standard GRISS score ≥35		
	Mean	SD	SE	Mean	SD	SE
GRISS_tot	14.10	9.78	.58	48.99	10.73	.76
Secure	8.50	1.69	.10	7.17	1.39	.09
Anxious	9.44	1.58	.09	9.72	1.77	.13
Avoidant	9.12	1.49	.09	9.47	1.63	.12
DERs_tot	80.71	18.39	1.19	92.37	19.41	1.37

GRISS_tot: Total score of the Golombok Rust Inventory of Sexual Satisfaction, Secure, Anxious, Avoidant sub-scales; Adult Attachment Style Scale (AASS), DERs_top: Total score of Emotion Regulation Scale; SD: standard deviation; SE: standard error

In order to explain the relation between the variables in the theoretical model, a Path Analysis, one of the Structural Equation Modeling (SEM), was made by Maximum Likelihood Method. Multiple regression analyses were conducted simultaneously with the path analysis to compare the direct or indirect relations between the variables. In the path analysis, how well the model predicts the data was determined by means of fit indices. (Sümer 2000, Meydan and Şeşen 2011).

To use this method, normality assumptions of the data should be met. Accordingly, missing value, normality, linearity and multi linearity assumptions on the data were reviewed. Thus, in order to exclude missing values from the data set, in line with the suggestions of Tabachnick and Fidell (2001), 48 participants who made multiple consecutive markings (whose standard deviation value was less than .3) and had a missing value of higher than 5% were excluded from the data set. Secondly, in order to examine extreme values, the Mahalanobis distance values were examined and three participants were excluded from the data set. Thirdly, the skewness and kurtosis values of the variables in the model were calculated. Tabachnick ve Fidell (2001) stated that skewness and kurtosis values for social sciences should range from -1.5 to +1.5. The analysis results supported this assumption (Skewness: -.03, -.95; Kurtosis: -.81, -1.12). Finally, the multicollinearity assumption between the variables was examined and no relation which may cause multicollinearity problem was found ($r < .90$). The analyses were conducted with the remaining 201 individuals thereafter.

Results

To conduct the Path Analysis, the correlation coefficients were calculated by the Pearson correlation analysis. As can be seen in Table 2, the sexual dysfunction level showed a significant positive correlation with the insecure attachment patterns, the difficulties in emotion regulation and the negative emotion experiences while it showed a significant negative correlation with the positive emotion experiences ($p < .05$).

Since the assumptions required for conducting the Structural Equation Modeling were met, a path analysis was made for the theoretical model established in line with the related literature. As the result of the analysis, fit indices of the model were found as $X^2/ sd = 2.84$, $p < .001$, CFI = .82, IFI = .83, NFI = .75, RMSEA = .09. The values

indicated that the model should be improved. Since it was found that the path between the SPANE - AAS variables was nonsense when examining the paths in the model, this path was excluded from the path analysis and the analysis was repeated. Thereafter, fit indices of the model were found as $X^2/sd = 2.83$, $p < .001$, CFI = .86, IFI = .86, NFI = .85, RMSEA = .08. In order to improve the model, in line with the modification suggestions, $e7-e8$ ($X^2 = 5.28$, $p < .001$), $e14-e15$ ($X^2 = 1.71$, $p < .001$) ve $e14-e16$ ($X^2 = 1.82$, $p < .001$) error scores were matched. Thereafter, fit indices of the model were found to be within acceptable ranges $X^2/sd = 2.23$, $p < 0.001$, CFI = .90, IFI = .90, NFI = .85, RMSEA = .08. (Figure 1)

Table 2. Standardized total, direct, and indirect effect values between the variables (β)

	Total				Direct				Indirect			
	AAS	DERS	SPANE	GRISS	AAS	DERS	SPANE	GRISS	AAS	DERS	SPANE	GRISS
SPANE	.00	-.76	.00	.00	.00	-.76	.00	.00	.00	.00	.00	.00
GRISS	-.48	.09	-.66	.00	-.48	-.41	-.66	.00	.00	.50	.00	.00
Negative SPANE	.00	.59	-.77	.00	.00	.00	-.77	.00	.00	.59	.00	.00
Positive SPANE	.00	-.60	.79	.00	.00	.00	.79	.00	.00	-.60	.00	.00
Secure_AAS	-.69	.00	.00	.00	-.69	.00	.00	.00	.00	.00	.00	.00
Touching	-.25	.05	-.34	.51	.00	.00	.00	.51	-.25	.05	-.34	.00
Vaginismus	-.16	.03	-.22	.34	.00	.00	.00	.34	-.16	.03	-.22	.00
Impulse	.00	.80	.00	.00	.00	.80	.00	.00	.00	.00	.00	.00
Avoidance	-.22	.04	-.29	.45	.00	.00	.00	.45	-.22	.04	-.29	.00
Goals	.00	.63	.00	.00	.00	.63	.00	.00	.00	.00	.00	.00
Awareness	.00	.36	.00	.00	.00	.36	.00	.00	.00	.00	.00	.00
Communication	-.30	.06	-.41	.62	.00	.00	.00	.62	-.30	.06	-.41	.00
Anorgasmia	-.35	.07	-.48	.74	.00	.00	.00	.74	-.35	.07	-.48	.00
Satisfaction	-.38	.07	-.51	.78	.00	.00	.00	.78	-.38	.07	-.51	.00
Strategy	.00	.89	.00	.00	.00	.89	.00	.00	.00	.00	.00	.00
Acceptance	.00	.61	.00	.00	.00	.61	.00	.00	.00	.00	.00	.00
Clarity	.00	.63	.00	.00	.00	.63	.00	.00	.00	.00	.00	.00
Avoidant	.70	.00	.00	.00	.70	.00	.00	.00	.00	.00	.00	.00
Anxious	.60	.00	.00	.00	.60	.00	.00	.00	.00	.00	.00	.00

AAS: Adult Attachment Scale (Secure, Anxious, Avoidant sub-scales); DERS: Difficulties in Emotion Regulation Scale (Goals, Impulsive, Strategy, Acceptance, Clarity, Awareness sub-scale); SPANE: Scale of Positive and Negative Experience (Positive and Negative Experiences sub-scale); GRISS: Golombok Rust Inventory of Sexual Satisfaction (Satisfaction, Anorgasmia, Communication, Avoidance, Vaginismus, Touching sub-scales)

According to the analysis results, the total effect of AAS, DERS and SPANE on the GRISS were $-.48$, $.09$ and $-.66$, respectively ($p < .05$). Also, the total effects of positive and negative emotions on the difficulties in emotion regulation were found $\beta = -.60$ and $\beta = -.59$, respectively. When examining the sub-scales of sexual dysfunctions, the total effect of avoidance sub-scale on the AAS, DERS, SPANE and GRISS was $-.22$, $.04$, $-.29$ and $.45$, respectively. The total effect of the communication sub-scale on the AAS, DERS, SPANE and GRISS was $-.30$, $.06$, $-.41$ and $.62$, respectively. The total effect of the anorgasmia sub-scale on the AAS, DERS, SPANE and GRISS was $-.35$, $.07$, $-.48$ and $.74$, respectively. The total effect of vaginismus sub-scale on the AAS, DERS, SPANE and GRISS was found as $-.16$, $.03$, $-.22$ and $.34$, respectively. The total effect of the touching sub-scale on the AAS, DERS, SPANE and GRISS was $-.25$, $.05$, $-.34$ and $.51$, respectively. The total effect of the satisfaction sub-scale on the AAS, DERS, SPANE and GRISS was $-.38$, $.07$, $-.51$ and $-.78$, respectively ($p < .05$). When examining the direct effects between the study variables, the AAS ($\beta = -.48$), DERS ($\beta = -.41$) and SPANE ($\beta = -.66$) directly predicted the GRISS ($p < .05$).

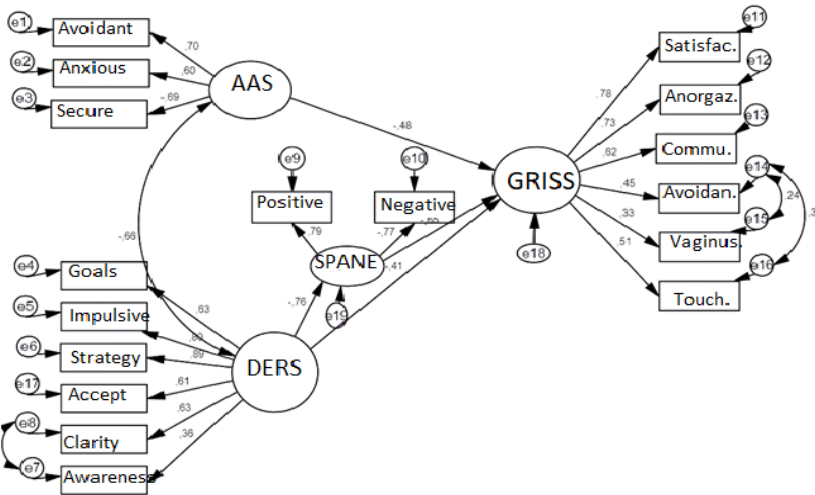


Figure 1. Theoretical model tested after modification

AAS: Adult Attachment Scale (Secure, Anxious, Avoidant sub-scales); DERS: Difficulties in Emotion Regulation Scale (Goals, Impulsive, Strategy, Acceptance, Clarity, Awareness sub-scale); SPANE: Scale of Positive and Negative Experience (Positive and Negative Experiences sub-scale); GRISS: Golombok Rust Inventory of Sexual Satisfaction (Satisfaction, Anorgasmia, Communication, Avoidance, Vaginismus, Touching sub-scales)

One of the advantages of the Structural Equation Models is to see the indirect relations between variables. According to the analysis results, the DERS indirectly predicted the GRISS ($\beta = .50$) ($p < .05$). When examining the sub-scales of the GRISS, the attachment patterns predicted the sub-scales of touching ($\beta = -.25$), vaginismus ($\beta = -.16$), avoidance ($\beta = -.22$), communication ($\beta = -.30$), anorgasmia ($\beta = -.35$) and satisfaction ($\beta = -.38$) ($p < .05$). The positive and negative emotion experience predicted the sub-scales of touching ($\beta = -.34$), vaginismus ($\beta = -.22$), avoidance ($\beta = -.29$), communication ($\beta = -.41$), anorgasmia ($\beta = -.48$) and satisfaction ($\beta = -.51$) ($p < .05$).

Apart from the path analysis, whether the sexual dysfunction levels differed by education levels and marital status of the participants was analyzed by using Mann-Whitney U Test. According to the analysis results, no significant difference between groups was found ($p > .05$). Also, no significant relationship between age and sexual dysfunction was found ($p > .05$).

Discussion

Sexual dysfunctions were considered a serious psychopathology sign in the past while today it is known that individuals with sexual dysfunctions do not have another psychological sign and can function in other areas of their lives in a healthy manner (İncesu 2004). It is almost impossible to explain problems in sexuality of a complex structure on the basis of a single model. Thus, in this study, the effect of attachment patterns, emotion regulation processes and positive and negative emotional experiences on sexual behaviors was examined to provide an explanation within the framework of bio-psycho-social model. When examining the direct effects based on the analysis

results, increased insecure attachment pattern increases sexual function problems. Also, sexual function problems also increase in cases where negative emotional experience is higher than positive emotional experience. The findings showed consistency with the Attachment Theory (Mikulincer and Shaver 2007a). According to the theory, the hyperactivation strategies of an individual in the face of negative experiences in relation to insecure attachment pattern can push the individual to encourage the partner to have sexual intercourse, to overemphasize having sexual intercourse in the relationship and to be oversensitive against sexual rejections (Birnbaum 2010). Besides, the deactivation strategies can cause inhibiting sexual desire, showing avoidant attitude towards sexuality or suppressing sexual stimulations (Birnbaum 2010, Özcan et al. 2015). Thus, emotion regulation process may also affect sexual experiences. For example, in the studies by Kingsberg and Janata (2007), it was stated that those with anxious and avoidant attachment patterns were less satisfied with sexual intercourse, had more sexual dysfunction problems, and had different sexual intercourse frequency and motivations behind their desire to have sexual intercourse. For example, it was stated that the women with anxious attachment pattern used sexuality as a tool for meeting the proximity and assurance need which they could not meet from their partner, and that if these needs were not met, they could feel emotionally disconnected from their partners and got angry (Küt 2018). Similarly, it was stated that the communication problems experienced by individuals with insecure attachment pattern also affected the communication with their partners in sexual relationship. In this regard, it was believed that individuals with insecure attachment pattern in relation to previous experiences were inhibited from expressing their desires during a sexual intercourse due to the possibility of getting negative responses from their partners when they express their needs (Brassard et al. 2015).

The fact that insecure attachment pattern adversely affected sexual life was supported by the study findings however, it was suggested that the effect of anxious and avoidant attachment pattern on sexual life could be different. When the attachment pattern was considered on the basis of sub-scales, the fact that the insecure attachment adversely affected sexual life was consistently supported however, when the attachment pattern was considered on the basis of category, it was found that there were inconsistent results regarding the relationship between sexual dysfunction and different attachment categories (avoidant and anxious/ambivalent). For example, in a group of study, it was stated that the anxious attachment pattern more negatively predicted sexual life compared with the avoidant attachment pattern (Çakmak 2011, Küt 2018). Especially, it is believed that the fact that individuals with anxious attachment pattern want to be close with their partners both emotionally and physically, misperceive the signals from their partners or are excessively alert to avoidance signals lead them not to have a sexual experience in which they and their partners could mutually feel relaxed, causing declining desire for sexual intercourse (Brassard et al. 2007). Likewise, Küt (2018) also stated that in individuals with anxious attachment pattern, increased relational concerns due to negative cognitive thoughts adversely affected their sexual arousals. As the concern levels of individuals increase, they have more difficulties in sexual satisfaction, sexual intimacy, arousal and orgasm. It was also stated that women with anxious attachment pattern were more likely to engage in unwanted sexual activities due to their concerns of rejection in relationship (Schachner and Shaver 2004).

However, there were findings to support that the avoidant attachment pattern more predicted sexual dysfunction (e.g. Feeney and Noller 2004, Birnbaum 2007). It was believed that this could be resulted from the fact that individuals with avoidant attachment pattern had limited positive or negative emotional responses to occurrences. In the anxious attachment pattern, individuals can have positive emotions and keep their desire for being close with their partners when they do not perceive a threat. However, in the avoidant attachment pattern, there is a limitation for both positive and negative emotions and experiences. Thus, it is believed that individuals with avoidant attachment pattern are more disruptive in interpersonal relationships (Shaver and Mikulincer 2008). In the studies by Schachner and Shaver (2004), it was stated that individuals with avoidant attachment pattern had more sexual problems compared to those with anxious attachment pattern. The authors stated that individuals with avoidant attachment pattern did not avoid from sexual intercourse but had limited sexual satisfaction. In the additional analyses conducted as part of this study in order to examine the degree of which insecure attachment patterns predicted sexual dysfunctions, it was found that the anxious attachment pattern (anxious/ambivalent sub-scale) alone significantly predicted sexual dysfunctions while the significant prediction in question removed when the avoidant attachment (avoidance sub-scale) pattern was included in the model. It was suggested that this could be resulted from the fact that individuals with anxious attachment pattern and those with avoidant attachment pattern had different expectations from their partners in interpersonal relationships. In this regard, it is believed that the fact that individuals with avoidant attachment pattern feel uncomfortable with the idea of sexual intercourse and do not want to establish a psychical and emotional intimacy more adversely affects their sexual lives (Feeney and Noller 2004, Birnbaum et al. 2006). Also, while sexual desire can be interpreted as a sign of romantic love, sexual behaviors can be an assurance of the partner's ongoing interest and love towards the individual (Davis et al. 2004). Thus, it is believed that if individuals with avoidant attachment avoid from sexual intercourse or suppress their sexual desires, this may more adversely affect their relationships with their partners. In addition to these discussions, when the attachment pattern was considered on the basis of category, findings on the fact that there was no difference in sexual dysfunctions between the groups were found. For example, in another study in which women diagnosed with vaginismus were compared with control group, the women who were diagnosed with vaginismus were found to have higher insecure attachment scores compared to the control group when the attachment patterns were considered on the basis of sub-scales. However, when the attachment pattern was assessed on the basis of secure, fearful, preoccupied and dismissive styles, no difference was found between the categories (Çeri 2009). Consequently, when attachment pattern was addressed categorically, although different strategies were used for emotional experiences in anxious and avoidant attachment, negative emotions were reported to be associated with frustration in both patterns (Birnbaum et al. 2006).

Although it is accepted that anxious attachment pattern and emotion regulation difficulties play a role in the development of pathological behaviors, the number of studies examined the effect of emotion regulation processes on sexual life are limited (Cohen and Belsky 2008, Ciocca et al. 2014). In the present study, when direct relationships were examined, it was seen that the increase in emotion regulation difficulty was associated with the decrease in sexual dysfunctions. However, when indirect and

total effects were examined, difficulties experienced in emotion regulation process were found to be associated with the increase in sexual dysfunctions. Similarly, in studies conducted in this area, inability of anxiously attached women in regulating their negative emotions inhibits their sexual desires and stimulation hence limiting their sexual pleasure and frequency of having orgasm (For example, Birnbaum 2007, Dewitte 2012). In another study conducted with men, it was reported that those with premature ejaculation problem had difficulty in emotion regulation process and their alexithymia levels were higher (Michetti et al. 2006). In addition to these discussions, it is believed that the negative relationship between emotion regulation and sexual dysfunctions may be due to the fact that individuals use sexuality as an emotion regulation tool. This finding may be similar with the fact that individuals use eating behaviors to regulate their emotions in facing stress revealed in studies examining eating disorder or body dissatisfaction (Lavender and Anderson 2010). Accordingly, it is believed that improving the ability of emotion regulation will reduce the difficulties experienced in gaining emotional awareness and physical sensation of emotions and thus provide advantage in situations where intense emotional experiences are present such as sexuality.

However, the study also includes some limitations. First, cause and effect relationship between the variables cannot be established since it is a cross-sectional study. Furthermore, using survey method to evaluate sexual life experiences may limit the findings as it involves the possibility of participants being unclear in their responses or provide biased response due to social desirability. In addition, the data were collected from a single partner. This situation leads to a limitation in understanding the mutual cycle in relationships. As regards to future studies, it is believed that studies where different methods such as assessment of couples together, face-to-face interviews and diary keeping techniques will make contribution to the field in terms of examining the motivation lying under sexual life more closely. Finally, in terms of socio-demographic characteristics, the study sample consisted of participants from university population and mainly single women. As regards to generalization of findings, studies to be conducted with women who are from different age groups and are married will contribute the knowledge in this field.

Consequently, study findings showed that in relation with negative internal representations, as anxious attachment pattern increased, difficulties and levels of sexual dysfunctions experienced by women during emotion regulation process increased. When the body of literature was reviewed, it was seen that the number of the studies examined the relationship between attachment and sexual dysfunctions were limited. In the present study, it is believed that explaining this relationship through emotion regulation mechanism will contribute in the development of intervention programs in clinical field.

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