

The Relationship of Attachment Styles, Marital Satisfaction, and Sex Guilt with Sexual Desire in Iranian Women

Negar Teimourpour¹, Nahaleh Moshtagh Bidokhti^{2*}, Abbas Pourshanbaz²

1. Department of Psychology, Faculty of Physical Education and Sport Sciences, University of Tehran, Tehran, Iran.

2. Department of Clinical Psychology, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.

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ABSTRACT

Objective: Among a representative sample of married women in the capital of Iran, Tehran, we aimed to determine the association of self-reported sexual desire with (1) Self-reported attachment styles; (2) Self-reported marital satisfaction; (3) Self-reported sex guilt.

Methods: The data were obtained from a total of 192 married Iranian women who were selected via multi-cluster sampling method from universities of Social Welfare and Rehabilitation, Tarbiat Modares, and Islamic Azad. The subjects' sociodemographic data, attachment styles (adult attachment styles index), marital satisfaction (ENRICH marital satisfaction questionnaire), sex guilt (Mosher revised sex-guilt inventory), and sexual desire (Hurlbert index of sexual desire) were collected.

Results: Pearson correlation coefficient and regression analysis were used to analyze the data. Findings showed that there is a significant relationship between sexual desire and secure attachment style ($r=0.283$, $P<0.01$), insecure-avoidant attachment style ($r=-0.321$, $P<0.01$), insecure-ambivalent attachment style ($r=0.144$, $P<0.05$), marital satisfaction ($r=0.512$, $P<0.01$), and sex guilt ($r=-0.442$, $P<0.01$). There was also a significant negative relationship between sexual desire and age ($r=-0.553$, $P<0.01$) and marriage duration ($r=-0.349$, $P<0.01$). Age, marital satisfaction, ambivalent attachment style, and sex guilt could collectively explain 52.5% of the sexual desire variance.

Conclusion: Higher scores in secure and ambivalent attachment styles and marital satisfaction are associated with higher scores of sexual desire. However, with increasing insecure avoidant attachment style and sex guilt, the scores of sexual desire decline. Also age and marriage duration are inversely related to sexual desire.

1. Introduction

Healthy sexual function is an important component of well-being. It can produce a mutual and joint pleasure between couples and even help them to cope more efficiently with stresses and problems of daily life (Mccarthy, 2002). An important factor in a happy and successful marriage is having a pleasurable sex life while tasteless sex life can lead to frustration and feeling of insecurity among the couples. Dysfunctional sexual relationships may occur because of different reasons but sexual desire is among

the main factors that lead to difficulty in sexual functioning. According to Laumann, Paike, and Rosen's study (1999), 43% of women and 31% of men suffer from some kind of sexual problems. About 22% of women and 5% of men experience problems related to low sexual desire in their life time. According to statistics, sexual desire problems, especially low sexual desire, is the most common sexual complaint among women (Amato, 2007; Arno et al., 2009). This is a complicated and interesting phenomenon which has puzzled the scholars for many years.

* Corresponding Author:

Nahaleh Moshtagh Bidokhti, PhD

Address: Department of Clinical Psychology, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.

E-mail: nahaleh.moshtagh@gmail.com

Various definitions like Levine's multidimensional model of sexual desire have been presented. He proposed that sexual desire is the force that makes people behave in a sexual manner and has three components: (1) "Sexual drive" the biological component which is mediated through neuro-endocrine system; (2) "Sexual wish" the social component representing societal expectations; (3) "Sexual motive" the individual/interpersonal component reflecting a person's tendency to engage in sex with a particular partner. He also mentioned that the spectrum of sexual desire intensity fluctuates between aversion, disinclination, indifference, interest, need, and passion. Although many individuals have a pattern of desire throughout their lives, this spectrum can be changed over the life cycle (Levine, 2003).

Regan and Atkins (2006) defined sexual desire as a motivational state that leads to interest and inclination towards a sexual object or sexual activity. They distinguish sexual desire from psychological and physiological sexual arousal. Fisher (1998) introduced an emotional-motivational system and believed that basic emotions are the result of distinguished neuron circuits or systems. She believed that human beings have 3 basic motivational circuits or systems which are evolved to lead behaviors. The first system is androgen system, which affects lust (including sexual impulse and desire). Next system is dopamine that affects attraction (romance) and the last one is oxytocin, which affects attachment.

Different factors affect the changes in sexual desire; they can be categorized into 2 major factors: physiological factors and psychological factors. Pregnancy, menopause, alcohol and narcotics consumption, different types of cancer, and diabetes are examples of physiological factors. Psychological disorders, emotions, maladaptive cognitions, lack of education regarding sexual functioning, couple distress and poor communication are examples of psychological factors (Bach, Wincze, & Barlow, 2005).

There are many other different psychological factors that may affect sexual desire and have not been studied yet. One of these factors is attachment style. Attachment is an important phenomenon in the process of every individual's development. Bowlby was a pioneer in introducing this concept and illustrated the relationship between infant and primary caregivers (Bowlby, 1969). Then, Ainsworth et al. (1978) identified 3 major patterns of infant-caregiver styles: (1) Secure attachment style; (2) Insecure-avoidant attachment style; (3) Insecure-ambivalent attachment style. In 1987, Hazan and Shaver suggested that attachment theory can be extended to explain adolescent's and adults' romantic-sexual relationships. They believed that attachment styles reflect mental representations of self and others which leads to different orientations in close relationships. Different attachment styles

are assumed as indelible personality dimensions, which have very important roles in person's relationship with others both in childhood and adulthood. Impact of different attachment styles on various psychological disorders such as depression (Brunette et al., 2008) and chronic pain (Meredith, Onsworth, & Strong, 2008) has been studied. However, sexual functioning is a new era, which needs more exploration.

Marital satisfaction is another factor, which may affect sexual desire. Different studies suggested that one of the main reasons of sexual dysfunction is communicational problems and couple distress (Bach, Wincze, & Barlow, 2005). Hurlbert et al. (2005) found that communication between couples is an important factor that affects sexual desire and mental functioning of women with hypoactive sexual desire disorder.

Feeling guilty about sexual issues is another factor that may affect sexual desire. Sex guilt affects different aspects of personal life, especially relationship with partner. People who feel guilty always worry about violating moral rules and feel like bad persons while engaging in a sexual behavior. Attitude toward sexual issues, such as sex guilt, is one of the most common reasons of sexual dissatisfaction and sometimes even formation of sexual dysfunction. These attitudes lead to problems such as premature ejaculation and impotence in men and low sexual desire and anorgasmia in women (Zhanda, 2005).

Considering these issues, it seems that despite high rate of sexual desire problems in women and its negative consequences, there are still so many unanswered questions in this subject. Therefore we addressed the relationship between attachment styles, marital satisfaction and sex guilt with sexual desire in this study.

We hypothesized that attachment styles, marital satisfaction, and sex guilt are significantly related to sexual desire in women. The relation of age and marriage duration with sexual desire was also investigated in the present study. We were also interested in determining the effect of age, marriage duration, attachment styles, marital satisfaction, and sex guilt in explaining the variance of sexual desire in women.

2. Methods

The current research was a correlational study. Number of children was an intervening variable and age and marriage duration were moderator variables. The population of this study comprised all married female students of universities of Social Welfare and Rehabilitation Sciences, Tarbiat Modares, and Islamic Azad University.

All participants were students in undergraduate and post-graduate programs, 18 to 40 years old, and selected through multi-clustering sampling. Excluding criteria were as follows: Pregnancy, menopause, having a specific disease such as diabetes, thyroids, cardiovascular diseases, different types of cancer, central nervous system diseases such as MS, axis I disorders like mood or anxiety disorders, axis II disorders, consumption of a specific drug (such as sexual desire stimulant or reducer and psychoactive drugs), consumption of alcohol and narcotics, students in the majors of psychology and counseling (because of familiarity with the variables and questionnaires) and presenting invalid and incomplete information by the subjects.

While the sample population was 200 subjects, eventually data of 192 women were used (3 questionnaires were excluded because of invalid answering, 2 because of incomplete filling out, and 3 because of their subjects studying psychology course).

Measures

Demographic Questionnaire

This questionnaire was designed by the researcher to assess the demographic data, including sex, age, marital status, marriage duration, education, university, pregnancy status, consumption of a specific drug, alcohol and narcotic, specific disease or mental and personality disorder.

Adult attachment scale

In Iran this scale has been developed by Besharat (1999) based on Hazan and Shaver's attachment scale. The scale has 2 parts of general and specific attachments and measures 3 different attachment styles (secure, insecure-avoidant, and insecure-ambivalent). The first part on general attachment has 21 questions. The second part on specific attachment has 3 questions. All questions are based on 5-point Likert-type scale. Cronbach α coefficient for each subscale (secure, insecure-avoidant, and insecure-ambivalent) among 240 university students was 0.72, 0.74, and 0.70, respectively. Test-retest reliability (with 2 weeks interval) among a group of 30 university students was 0.92. Content reliability was assessed by correlation among 4 university professors' opinion and was 0.73-0.76 for secure attachment style, 0.60-0.70 for insecure-avoidant attachment style, and 0.63-0.87 for insecure-ambivalent attachment style (all significant) (Besharat, 1999).

ENRICH marital satisfaction questionnaire

This questionnaire was originally designed by Foweres and Olson (1989) with 112 questions. In this study, the short form (47 questions) was implemented. Questions are in Likert-type scale (5-point) and assess 12 different areas of marital life. Psychometric properties of the questionnaire are satisfactory (Foweres & Olson, 1989). The Cronbach α of the short form (Farsi version) was 0.95 in Soleimanian study (1994). Correlation of the questionnaire with life satisfaction was 0.32-0.41, which indicates its good construct validity (Soleimanian, 1994).

Revised Mosher sex guilt inventory

This inventory consists of 50 questions and is designed by Mosher (1998) in order to assess guilt about sexual issues. It is in Likert-type scale (7-point 0-6) and measures sex guilt in a range of 0-300. Psychometric properties of this scale have been confirmed in several studies (Mosher, 1998). In Iran, the Cronbach α of the questionnaire among 917 university students was 0.87. Test-retest reliability (with two weeks interval) among 225 university students was 0.77. Content validity was assessed using Kendal coefficient among 7 psychology professors which found as 0.82. Convergent and discriminate validity of the questionnaire was assessed by performing it simultaneously with sexual and knowledge attitude scale and got confirmation (Besharat, 2010).

Hurlbert index of sexual desire

This index was described by Apt and Hurlbert (1992) and consists of 25 questions in Likert-type scale (5-point 0-4) with the score range of 0-100. The Cronbach α of the questionnaire and test-retest reliability (with 2 weeks interval) were 0.95 and 0.86. Psychometric properties of the questionnaire are satisfactory (Apt & Hurlbert, 1992). Before implementation, the index was translated by the researcher. Then, an efficient translator, who was unfamiliar with the subject of the study, translated the index back to English. Next, items which were not compatible with the original questions were revised. At this stage the questionnaire was completed by 10 subjects while the researcher asked them to read the questions one by one and tell the meaning of each item to make sure that they are comprehensible. Items which implied a different meaning were revised. Afterwards, the questionnaire was completed by 45 subjects who met the inclusion criteria but were not among the study sample. The Cronbach α was 0.89 and test-retest reliability (with 2 weeks interval) was 0.89. Upon completion of the study, the Cronbach α (among 192 women) was 0.93.

Table 1. Results of bivariate correlation analyses among all variables of study (n=192).

	1	2	3	4	5	6	7	8
1. Sexual desire	-							
2. Secure	0.283**	-						
3. Avoidant	-0.321**	-0.78**	-					
4. Ambivalent	0.144*	-0.29**	0.117	-				
5. Marital satisfaction	0.512**	0.523**	-0.42**	-0.45**	-			
6. Sex guilt	-0.442**	-0.26**	0.25**	0.241**	-0.45**	-		
7. Age	-0.553**	-0.25**	0.25**	0.017	-0.5**	0.43**	-	
8. Marriage duration	-0.349**	-0.2**	0.201**	0.042	-0.38**	-0.34**		-
M	62	21.35	14.97	15	167	163.36	26.83	41
SD	16	5	5	5	34.35	57	4	36
Absolute rage	15-91	6-31	6-31	7-31	87-224	24-270	18-40	2-150

* P<0.05 ** P<0.01.

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Statistical analysis

In order to analyze data of the study, the following statistical methods were used:

1. Descriptive statistics in order to calculate frequency, mean, standard deviation, absolute ranges, and subject's demographic characteristics;
2. Pearson correlation in order to determine relations between variables of the study;
3. Stepwise regression analysis in order to determine the impact of age, marriage duration, attachment styles, marital satisfaction, and sex guilt in explaining the variance of sexual desire in women;
4. One-way ANOVA and post-hoc (Using Tukey method) in order to assess the differences of sexual desire scores in different attachment styles.

Data analysis was carried out using SPSS for Windows version 16 (SPSS, Inc., Chicago, IL).

3. Results

Information regarding age (in years) and marriage duration (in months) of subject is presented in Table 1. Also, 67 participants were studying for the Bachelor degree, 102 were studying for Masters degree and 23 were at PhD level. A total of 82 participants were students at the University of Social Welfare and Rehabilitation, 67 at Tarbiat Modares University, and 43 at Islamic Azad University.

To examine the first hypothesis of the study, the Pearson correlation coefficient between the scores of attachment styles and sexual desire was calculated, which was $r=0.283$ ($P<0.01$). It means higher scores in secure attachment style are associated with higher scores in sexual desire. The Pearson coefficient between insecure ambivalent attachment style and sexual desire was $r=0.144$ ($P<0.05$) i.e. higher scores in ambivalent attachment style are associated with higher scores in sexual desire. Finally, the Pearson correlation between insecure attachment style and sexual desire was $r = -0.321$ ($P<0.01$) i.e. higher scores in insecure avoidant attachment style are correlated with lower scores in sexual desire. Therefore, there is a significant relationship between attachment styles and sexual desire. Furthermore,

Table 2. One-way ANOVA for differences in sexual desire among different attachment styles (n=192).

	N	M	SD	F	P-value
Secure	33	45	23		
Ambivalent	36	66	20	25.71	0.0001
Avoidant	123	65	9		

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Table 3. Stepwise multiple regression results for age, attachment styles, marital satisfaction, and sex guilt, predicting sexual desire (n=192).

	Adjusted R ²	F change	β	t	P value
1	0.302 ^a	83	-0.55	-0.91	0.00
2	0.374 ^b	57	-0.39 0.31	-5.98 4.75	0.00
3	0.489 ^c	61	-0.28 0.55 0.33	-4.5 7.91 6.61	0.00
4	0.525 ^d	53	-0.21 0.48 0.42 -0.22	-3.38 7.76 7.73 -3.84	0.00

a) Predictors: (constant), age.

b) Predictors: (constant), age, marital satisfaction.

c) Predictors: (constant), age, marital satisfaction, insecure ambivalent attachment style.

d) Predictors: (constant), age, marital satisfaction, insecure ambivalent attachment style, sex guilt.

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in order to assess the differences of sexual desire scores in different attachment styles, 1-way ANOVA was used and its results indicated a significant difference in the scores of sexual desire in different attachment styles ($F=25.71$, $P<0.01$). Also, in post-hoc (Using Tukey method), a significant difference was found between sexual desire scores of secure and ambivalent attachment styles with avoidant attachment style. In other words, participants with secure and ambivalent attachment styles, in comparison with participants with avoidant attachment style, had higher scores in sexual desire. These findings are shown in Table 2.

To evaluate the second part of the hypothesis of the study, the Pearson coefficient was calculated between the scores of marital satisfaction and sexual desire, which was $r=0.512$ ($P<0.01$), i.e. higher scores in marital satisfaction are correlated with higher scores in sexual desire. Thus, there is a significant relationship between marital satisfaction and sexual desire.

To assess the third hypothesis of the study, Pearson coefficient was calculated between scores of sex guilt and sexual desire and found at $r=-0.442$ ($P<0.01$) i.e. higher scores in sex guilt are correlated with lower scores in sexual desire. In conclusion, there is a significant relationship between sex guilt and sexual desire. In order to assess the relationship between age and marriage duration with sexual desire, the Pearson correlation coefficient was calculated. The results showed a significant negative correlation between age and sexual desire ($r=-0.553$, $P<0.01$) and also between marriage duration and sexual desire ($r=-.349$, $P<0.01$).

Correlations among all variables of the study (secure attachment style, insecure-ambivalent attachment style, insecure-avoidant attachment style, marital satisfaction, sex guilt, age, marriage duration, and sexual desire) with respect to their mean, standard deviation and absolute range are presented in Table 1.

To determine the share of attachment styles, marital satisfaction, and sex guilt in explaining the variance of sexual desire in women, regression analysis was used and independent variables of the study (attachment styles, marital satisfaction and sex guilt) and moderator variables (age and marriage duration) were entered in regression analysis (using Stepwise method). The results are shown in Table 3.

As it is shown, in the first step, age was entered the regression, and adjusted R² was found at 0.302, which means that 30.2% of the variance of sexual desire is explained by the age of participants. In the next step, marital satisfaction was entered the regression and adjusted R² increased to 0.374, which means that age and marital satisfaction can explain 37.4% of the variance of sexual desire. In the third step, insecure-ambivalent attachment style was added to the regression and adjusted R² rose to 0.489, which means that age, marital satisfaction, and insecure ambivalent attachment style can explain 48.9% of the variance of sexual desire. Finally, sex guilt was added to regression and adjusted R² changed to 0.525 i.e. age, marital satisfaction, insecure-ambivalent attachment style, and sex guilt can explain 52.5% of the variance of sexual desire.

4. Discussion

In sum, the first hypothesis of the study on the relationship between attachment styles and sexual desire was confirmed. This outcome is in line with the study of Davis, Shaver, and Vernon (2004). In their study, the relation of attachment style to subjective motivations for sex was investigated. The relations of attachment anxiety and avoidance to overall sexual motivation and to the specific motives for emotional closeness, reassurance, self-esteem enhancement, stress reduction, partner manipulation, protection from partner's negative affect and behavior, power exertion, physical pleasure, nurturing one's partner, and procreation were explored.

Attachment anxiety was positively related to overall sexual motivation and to all specific motives for sex, with the exception of physical pleasure. Avoidance was negatively related to emotional closeness and reassurance as goals of sex and positively related to manipulative use of sex but minimally related to most other motives. Sexual passion was positively related to attachment anxiety and negatively related to avoidance, and anxiety was related to the maintenance of passion over time, whereas avoidance was related to loss of passion over time. Their study showed that people with anxious attachment style rely heavily on sex, because for them sex is a major way to gratify their extreme needs of security, closeness, and love.

Overall, we can assume that people with secure attachment style (in comparison with people with avoidant attachment style) experience more sexual desire. This is probably the result of feeling more security and psychological intimacy in their relationship. On the other hand, people with avoidant attachment style try to avoid sex or separate sexual intercourse from emotional intimacy. This is probably due to discomfort with intimacy and unwillingness or inability to form close bonds with others. People with ambivalent attachment style engage in sex frequently and report high levels of sexual desire because of their constant fear of rejection and need for intimacy and closeness.

The second hypothesis of this study (relationship between marital satisfaction and sexual desire) was confirmed too. Breznsnyak and Whisman (2004) examined the association among marital satisfaction, marital power, and sexual desire in a sample of 60 community couples. It was postulated that marital satisfaction would be positively correlated with sexual desire and this association would be moderated by marital power, such that marital satisfaction would be more strongly correlated with sexual desire among individuals who perceive themselves as having less power in their relationship. Results indicated that marital satisfaction was significantly associated with sexual desire, but there was

no evidence for the moderating effects of various forms of marital power.

Overall, we can propose that marital satisfaction is one of the most important factors affecting sexual desire. It seems that conflict between partners leads to decrease in sexual intercourse and desire. But we should be aware that the sample of this study was only women and marital dissatisfaction may have different influence on men's sexual desire. So, choosing couple samples and comparing their results with each other can lead to interesting results.

Third hypothesis of the study (relationship between sex guilt and desire) was also confirmed. Person's attitude toward sexual issues, such as sex guilt, is one of the most common reasons of formation of sexual dissatisfaction and problems. These kinds of attitudes lead to problems such as premature ejaculation and sexual impotence in men and low sexual desire and anorgasmia in women (Zhanda, 2005). Sadock (2005) also believed that sex guilt and moral restrictions influence sexual dysfunction, especially low sexual desire and arousal disorder and anorgasmia. We can consider sex guilt as a cultural issue. In eastern cultures, especially Islamic cultures, sexual issues are taboo and people rarely discuss sexual subjects in public places or educational institutes.

On the other hand, sexual intercourse before marriage is prohibited. These restrictions are tougher on girls in Iran because they have to be virgin till they get married. Girls repeatedly receive this message that sexual intercourse and sexual issues are inappropriate and sinful. As a result, this guilt toward sexual issues establishes and they feel guilty when they have sex even with their husbands. This is more prominent when years between puberty and marriage gets longer, as the individual has to struggle with sex guilt for a longer time and on a daily basis and sex basically becomes more conflicting.

In order to assess the relationship between age and sexual desire, the Pearson coefficient was calculated between age and sexual desire ($r=-0.553$, $P<0.01$). This result is in line with the study of Hartman et al. (2004) that studied sexual desire decline in middle-aged and old women and found higher rates of sexual dysfunctions, especially low sexual desire and arousal disorder in older women. Kontula and Mannila (2009) studied how aging modifies human sexual activity and sexual desire, and what are the most important determinants in this change.

Their findings showed that as a result of female widowhood, aging men had a higher incidence of sexual intercourse compared to aging women, and regarding relation-

ships, it was more likely for women to report lack of sexual desire. In regression analysis, age was a predictor of sexual activity but not of sexual desire, when controlling for the impact of other factors. Relationship duration did not play an important role in sexual activity or sexual desire when controlling for a number of other variables. Sexual desire, valuing sexuality, and a healthy partner were important to female sexual activity; and high sexual self-esteem, good health, and active sexual history were important to male sexual activity. To keep up their sexual desire, both men and women need good health, good sexual functioning, positive sexual self-esteem, and a sexually skillful partner. Decline of sexual desire with aging in women seems to be affected by physiological factors. Getting closer to menopause phase has its own problems; for example, hot flashes and vaginal dryness are side effects of menopause.

On the other hand, experience of having kids has its own consequences. Women get busier with household chores and raising kids, have less privacy and free time. But some women, after passing menopause phase and accepting its changes and their children's leaving the house, have more free time in retirement and tend to have more sexual desire. But as in our sample group, age range was between 18-40 years, we could not study that condition. So choosing women from different age ranges and comparing their levels of sexual desire can be helpful.

In order to assess the relationship between marriage duration and sexual desire, Pearson coefficient was calculated between marriage duration and sexual desire ($r=-0.349$, $P<0.01$). Clement (2002) in a study explained sexual desire decline in long-term relationships. He believed that sexual desire decline is a result of self-organizing process between couples. His finding showed that with increase in relationship duration, sexual desire decreased.

Klussman (2002) studied the relationship between sexual motivation and duration of partnership. His main results were as follows: (1) Sexual activity and sexual satisfaction decline in women and men as the duration of partnership increases; (2) Sexual desire only declines in women; (3) Desire for tenderness declines in men and rises in women. It seems that novelty of relationship increases sexual desire. With the time passing, primary sexual passion decreases and a phase of plateau emerges in the relationship. Along with increase in the length of relationship, other things become more valuable such as enjoying each other companionship, taking care of kids, and so on. Being parents and its effects on sexual desire is an era that needs more investigation.

We also explored the share of attachment styles, marital satisfaction, and sex guilt in explaining the variance of sex-

ual desire. In order to detect their share, stepwise regression analysis was used. As a result, age, marital satisfaction, insecure ambivalent attachment style, and sex guilt predicted 48.9% of the variance of sexual desire, but secure and insecure avoidant attachment styles and marriage duration were not entered the regression. This is probably because of high association of secure and avoidant attachment style with other variables such as marital satisfaction and sex guilt. When 3 attachment styles were entered in the regression, avoidant and ambivalent attachment styles were able to predict 12.7% of the variance of sexual desire. In another situation, 3 attachment styles and sex guilt were entered in the regression. In this case, sex guilt, ambivalent, and secure attachment styles were able to predict 31% of the variance of sexual desire. In another situation, the Enter regression method was used. In that case, all variables (marital satisfaction, avoidant attachment style, sex guilt, ambivalent style, and secure attachment style) were able to predict 50% of the variance of sexual desire.

Based on the result of this study, we can conclude that having secure and ambivalent attachment styles leads to higher levels of sexual desire. On the other hand, women with avoidant attachment style have lower sexual desire. Higher marital satisfaction in women leads to higher levels of sexual desire. Higher sex guilt in women leads to lower sexual desire. As women age and the duration of their relationship increases, their sexual desire decreases.

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