



The Relationship Between Maternal Attachment and Sexual Self-Confidence in Breastfeeding Women

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Abstract

Introduction Maternal attachment and sexuality are sensitive issues affected by many factors, especially in breastfeeding women. This study aimed to determine the relationship between maternal attachment and sexual self-confidence in breastfeeding women.

Methods The research was conducted as a descriptive relationship-seeking study. The data of the study was collected from 315 women between March 2022 and August 2022. The study data were collected through social media by transforming the personal information form, the sexual self-confidence scale, and the maternal attachment scale into an online questionnaire.

Results Maternal attachment was found to be quite high with a score of 94.89 ± 3.02 , and the total mean score of the sexual self-confidence scale was found to be 30.61 ± 6.37 . It was seen that primiparous women had the highest mean of 96.87 ± 2.46 according to maternal attachment mean. It was observed that the highest value in the sexual self-confidence scale was found in women who graduated from primary school with an average of 32.06 ± 8.49 . It was determined that there was a weak negative relationship between maternal attachment and sexual self-confidence.

Conclusions It was observed that the demographic characteristics of breastfeeding women did not make a difference in maternal attachment or sexual self-confidence, and there was no significant relationship between maternal attachment and women's sexual self-confidence.

Policy Implications A better understanding of maternal attachment and sexual expectations in breastfeeding women has social and research implications. Healthcare professionals, especially nurses, should evaluate maternal attachment and sexual expectations in breastfeeding women and include them in their practices.

Keywords Breastfeeding · Maternal attachment · Sexual self-confidence · Women

Introduction

The American Academy of Pediatrics recommends that an infant be breastfed for the first 6 months and continued breastfeeding for up to 2 years as long as the mother and infant desire (Meek, 2024). In recent years, it has been reported that the duration of exclusive breastfeeding and total breastfeeding in the first 6 months is high in Turkey (TSI, 2023). In the postpartum period, the mental health of the mother affects the intention to breastfeed and the rates of initiation and continuation of breastfeeding (Penniston et al., 2021). A woman's mental health during breastfeeding is a factor that significantly affects the quality and quantity of the infant's life. Breastfeeding, which affects the mother as well as the infant, has a positive effect on physical and emotional health with its protective effect (Yuen et al., 2022). Breastfeeding is thought to facilitate the secure attachment between mother and

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infant (Abuhammad & Johnson, 2021). Maternal attachment is a permanent, unique relationship between mother and infant (Müller, 1996). Maternal attachment is affected by breastfeeding duration, infant temperament (Gibbs et al., 2018), mother's sleep quality (Bai et al., 2022), mother's mood, prenatal attachment level (Daglar & Nur, 2018), quality of marriage, and many other factors (Kim & Fredman, 2021). During pregnancy and the postpartum period, important changes occur in the physical structure of the woman (Chan et al., 2020). These bodily changes in women, for example, differences in breast structure, can affect sexual life (Thomas et al., 2019). Sexuality is an important aspect of human identity and contributes significantly to the quality of life for people (Calabrò et al., 2019). When we look at sexual self-efficacy, it is known that the ability and self-efficacy of women in sexual behavior are evaluated. Sexual intercourse is an important component of a marriage. Naturally, functionality in the field of sexuality also significantly affects marital satisfaction (Atrian et al., 2019). Sexuality is a common concern in the postpartum period. Studies are showing that pre-pregnancy estrogen levels in breastfeeding women may not return for up to one year after giving birth, which may contribute to low libido. Most women experience sexual problems in the postpartum period (Banaei et al., 2019). Matthies et al. reported that breastfeeding affects sexual functions in women (Matthies et al., 2019). In a systematic review, it was reported that attachment style is an important component affecting sexual satisfaction in women during the postpartum period, and factors such as parenthood, age, education, and income level affect sexual satisfaction (Rausch & Rettenberger, 2021). In the literature, it is stated that sexuality is an important aspect of married life that affects the quality and stability of the relationship between couples (Besharat & Rafiezadeh, 2016). Female sexuality has both maternal and erotic aspects (Perlman, 2019). This study aimed to determine the relationship between maternal attachment and sexual self-confidence in breastfeeding women.

Research Questions

- What are the maternal attachment level and sexual self-confidence level of breastfeeding women?
- Is there a relationship between maternal attachment levels and sexual self-confidence levels of breastfeeding women?

Methods

Study Design

The research was conducted as a relation-seeking study, one of the analytical research types.

Setting, Participants, and Eligibility

This study was conducted in Konya city of Turkey. All health services providing any type of women's health care at the time of participation in the study were eligible for inclusion. The population of the research consisted of women whose infants were older than one month, who were breastfeeding, and who had sexual partners. The inclusion criteria for participants were as follows: participants needed to be (1) over 18 years old; (2) breastfeeding; (3) her baby is over a month old; (4) having a sexual partner; and (5) having agreed to participate in this study. Women with severe mental illness were excluded. Based on the inclusion and exclusion criteria, a total of 314 women were recruited. Before filling out the questionnaire, two research nurses explained the purpose of the study and the main content of the questionnaire to ensure that participants correctly understood it.

Sample Size

The Sexual Confidence Scale score was found to be 39.15 ± 8.36 in Çelik's study, which was used as a source for calculating the number of samples (Çelik, 2015). In this study, it was determined that a minimum of 314 people should be included in the sample calculation made with a 5% alpha margin of error and 95% power according to G-Power power analysis (G*Power 3.1.9.2). The data of the study were collected from 315 women by snowball sampling method between March 2022 and August 2022.

Measurement

The data of the study were collected using the personal information form, the sexual self-confidence scale, and the maternal attachment scale. The personal information form consists of 7 questions questioning personal information such as women's age, education level, employment status, income level perception, number of children, infant's age (month), and marriage year.

Sexual Self-Confidence Scale

It is a measurement tool developed by Çelik (2015) to measure the sexual self-confidence characteristics of individuals and is based on the principle of giving information about the individual himself. Self-disclosure, sexual courage, and sexual awareness have 3 sub-dimensions. The scale gives both a total sexual self-confidence score and separate scores for the sub-dimensions. There is no reverse-coded item in the scale. The possible score range of the scale ranges from 13 to 52 points. High scores obtained from the scale indicate

that individuals have high levels of sexual self-confidence. The internal consistency coefficient of the scale was found to be 0.88 (Çelik, 2015).

Maternal Attachment Inventory (MAI)

It was developed by Müller in 1994 (Müller, 1994) and adapted into Turkish by Kavlak and Sirin to measure maternal attachment. It is a one-dimensional, one-dimensional, 26-item scale with a four-point Likert-type scale with each item ranging from “always” to “never”. Each item contains direct statements and is calculated as always = 4 points, often = 3 points, sometimes = 2 points, and never = 1 point. The lowest score to be obtained from the scale is 26, and the highest score is 104. The MAI is a self-administered scale that can be filled in by literate women. A high score indicates high maternal attachment (Kavlak & Şirin, 2009). The internal consistency coefficient of the scale was found to be 0.77.

Data Collection

The sexual self-confidence scale and maternal attachment inventory, the personal information form created by the researchers, was transformed into a link suitable for online sharing using Google Forms. This link, which was created later, was shared with women who met the research criteria through platforms such as social media and e-mail. Thanks to the snowball sampling method, it was delivered to women with this feature. Feedback and communication regarding the questionnaire were also provided through these communication platforms. The time to fill out the created survey is approximately 15 min.

Data Management and Analysis

Data were transferred to the SPSS program (IBM SPSS Statistics for Windows, Version 24.0) for cleaning and analysis. Range, logic, and missing data were checks completed. Any discrepancies were checked and discussed, and the conclusion was accepted by two members of the research team. Descriptive analyses were conducted with data summarized using frequencies and percentages for categorical and continuous variables and means and standard deviations (SD) for continuous data. Homogeneity of variances, which are prerequisites for parametric tests, was checked with the “Kolmogorov–Smirnov” test, and the assumption of normality was checked with the “Shapiro–Wilk” test. Predictor and predictive variables must be continuous variables measured at least on an equal interval scale, and normal distribution analysis was evaluated between -2 and $+2$ points (George, 2011). Student’s *t*-test and one-way ANOVA tests were used for differences between scale scores and some socio-demographic

characteristics. The relationship between two continuous variables was evaluated with the Spearman Correlation Coefficient since parametric test prerequisites were not met. $p < 0.05$ level was considered statistically significant.

Results

In the study, it was determined that the mean age of the women was 27.37 ± 4.52 years, the mean age (months) of the youngest child was 3.69 ± 1.32 months, and the average duration of marriage was 5.06 ± 3.30 years. In terms of socio-demographic characteristics, it was seen that 64.8% of the women were multiparous, 68.3% were working, 73.3% of them had income equal to their expenses, and 56.2% had a university or higher education level (Table 1).

The total scores of the maternal attachment and sexual self-confidence scales were evaluated according to the socio-demographic variables of the women. The mean total score of maternal attachment was found to be 94.89 ± 3.02 , and the mean score of the sexual self-confidence scale was found to be 30.61 ± 6.37 . It was seen that primiparous women had the highest mean of 96.87 ± 2.46 according to maternal attachment mean. It was determined that demographic variables did not make a significant difference in terms of maternal attachment ($p > 0.05$). It was observed that the highest value in the sexual self-confidence scale was found in women who graduated from primary school with an average of 32.06 ± 8.49 . It was determined that demographic variables did not make a significant difference in terms of sexual self-confidence ($p > 0.05$; Table 2).

The ages of the women and their babies, the average years of marriage, maternal attachment levels, and the sexual self-confidence scale and its sub-dimensions were compared. There was a weak positive correlation between the age of the women and the total score of maternal attachment and sexual self-confidence ($p > 0.05$). There was a weak but significant positive correlation between the year of marriage and the Sexual Awareness sub-dimension ($p < 0.05$). There was a weak positive relationship between maternal attachment and sexual self-confidence sub-dimensions self-disclosure and sexual awareness and a weak negative relationship between sexual courage and sexual self-confidence total score ($p > 0.05$). There were significant positive correlations between the total score of sexual self-confidence and all sub-dimensions of the scale ($p < 0.05$; Table 3).

Discussion

In this study, we aimed to determine the relationship between maternal attachment and sexual self-confidence in breastfeeding women. Breastfeeding is one of the most important predictors of maternal attachment. Our sample

Table 1 Socio-demographical characteristics of women ($n = 315$)

Variables		Mean and frequencies	
		Min–Max	$\bar{X} \pm SD$
Age		18–42	27.37 ± 4.52
Age of the youngest child (months)		1–9	3.69 ± 1.32
Duration of being married (years)		1–22	5.06 ± 3.30
		N	%
Child parity	Primiparous	111	32.5
	Multiparous	204	64.8
Working status	Yes	215	68.3
	No	100	31.7
Income status	Less than expense	45	14.3
	Equal to expense	231	73.3
	More than expense	39	12.4
Educational status	Primary education	33	10.5
	High school	105	33.3
	\geq University	177	56.2

Summary statistics mean \pm standard, given as minimum and maximum values. Number (n) and percentage (%) were used for frequency values.

Table 2 Comparison of socio-demographic variables with the total score of the maternal attachment and sexual self-confidence scales ($N = 315$)

Variables		Maternal attachment scale			Sexual self-confidence scale		
		Min–Max	$\bar{X} \pm SD$	$\frac{\chi^2}{df} F$ p	Min–Max	$\bar{X} \pm SD$	$\frac{\chi^2}{df} F$ p
Child parity	Primiparous	91–104	96.87 ± 2.46	10.14 [‡]	16–52	30.33 ± 6.04	-0.572^{\ddagger}
	Multiparous	70–100	93.81 ± 2.74	0.977	22–52	30.77 ± 6.36	0.967
Working status	Yes	89–104	94.97 ± 2.64	0.634 [‡]	16–52	30.69 ± 6.40	0.348 [‡]
	No	70–104	94.71 ± 3.72	0.210	22–52	30.43 ± 6.32	0.728
Income status	Less than expense	89–100	94.77 ± 2.46	0.731 ^μ	26–50	31.33 ± 6.55	1.467 ^μ
	Equal to expense	70–104	94.81 ± 3.21	0.482	16–52	30.73 ± 6.59	0.232
	More than expense	91–104	95.43 ± 2.35		26–49	29.07 ± 4.32	
Educational status	Primary education	90–100	94.72 ± 2.22	0.671 ^μ	22–52	32.06 ± 8.49	1.494 ^μ
	High school	89–104	94.64 ± 2.62	0.512	23–52	29.93 ± 6.15	0.226
	\geq University	70–104	95.06 ± 3.35		16–51	30.74 ± 6.01	

* $p < 0.05$; ** $p < 0.01$

[‡]Student's t -test

^μOne-way ANOVA test of variance, summary statistics are given as F/t (p) values

group consisted of lactating mothers and maternal attachment levels were quite high. Unlike our research findings, in the study of Gümüşsoy et al. in which the sample group consisted of breastfeeding women, maternal attachment was found to be moderate (Gümüşsoy et al., 2020). This difference between the studies may be due to the difference in some sociodemographic characteristics of the mothers included in the studies. It was determined that there was a weak positive correlation between the age of the women and maternal attachment. As the maternal age increases, the level of maternal attachment also increases. Similar to our research results, in the study of Kim (2019), it was found

that the level of maternal attachment increased with increasing maternal age (Kim, 2019). Our research results show that the level of maternal attachment increases as the age of their babies decreases. Unlike our research results, studies are showing that maternal attachment increases as the infant's age increases (Gümüşsoy et al., 2020) or that the maternal attachment level does not change (Keskin & Yağmur, 2020). We think that this difference between the studies may be due to the different age ranges of the babies of the mothers included in the studies.

In our study, there was no significant relationship between maternal attachment and sexual self-confidence.

Table 3 Comparison of age of women, age of babies, years of marriage, and levels of maternal attachment and sexual self-confidence scale and its sub-dimensions ($N=315$)

		Age	Infant's age	Years of marriage	MAS	Self-disclosure	Sexual courage	Sexual awareness
Infant's age	<i>r</i>	0.037						
	<i>p</i>	0.513						
Year of marriage	<i>r</i>	0.767**	0.025					
	<i>p</i>	0.000	0.659					
MAS	<i>r</i>	0.055	−0.048	0.037				
	<i>p</i>	0.328	0.395	0.511				
Self-disclosure	<i>r</i>	0.073	0.036	0.091	0.000			
	<i>p</i>	0.198	0.524	0.108	0.999			
Sexual courage	<i>r</i>	0.026	0.056	0.049	−0.049	0.329**		
	<i>p</i>	0.641	0.318	0.388	0.390	0.000		
Sexual awareness	<i>r</i>	0.122*	0.008	0.124*	0.093	0.451**	0.619**	
	<i>p</i>	0.031	0.882	0.028	0.099	0.000	0.000	
Sexual confidence total score	<i>r</i>	0.100	0.041	0.089	−0.005	0.966**	0.435**	0.537**
	<i>p</i>	0.075	0.471	0.114	0.934	0.000	0.000	0.000

* $p < 0.05$; ** $p < 0.01$.¹

Kınık and Özcan stated in their study that the relationship between parents affects maternal attachment (Kınık & Özcan, 2020). Matthies et al. reported that postpartum women who exclusively breastfeed their babies are more likely to have problems with sexual function (Matthies et al., 2019). There are different research results regarding the effect of breastfeeding on sexuality. Causes such as large breast size and stimulation of nipples during lactation may affect sexuality positively. In some women, oxytocin released during breastfeeding may cause sexual arousal (Grussu et al., 2021). In addition to the positive effects of breastfeeding on sexuality, negative effects such as decreased sexual interest, decreased frequency of sexual activity, decreased sexual pleasure, decreased sexual desire, and delayed resumption of sexual intercourse after childbirth have been reported (Johnson, 2011). The factor affecting sexuality is not the frequency of breastfeeding, but the duration of breastfeeding. Women who breastfeed for longer are less interested in sex, so they return to sexual activity later (Grussu et al., 2021; Zamani et al., 2018).

Participants in our study had a moderate level of sexual self-confidence. Although the women were healthy, their sexual self-confidence scores were not high. Our research results are compatible with the literature. Compared to the pre-pregnancy level, it has been reported that the frequency of all kinds of sexual behavior decreases during the six months after delivery (Jawed-Wessel & Sevic, 2017), and this is evident in most couples throughout the year after delivery (Grussu et al., 2021). In the study of Şahbaz Selimoğlu and Beydağ, women were asked whether they had sexual problems after giving birth, and it was stated

that the vast majority of women did not (Şahbaz Selimoğlu & Beydağ, 2020).

Turkish society is a conservative society, and sexual issues are not easily talked about and there are taboos. Information about sexuality is generally obtained informally. The “family,” the most important institution in our society, is the institution where the first sexual information of the individual is formed and sexuality begins and takes shape. We think that there is a possibility that the participants cannot express themselves comfortably enough outside the family.

In conclusion, although maternal attachment level and sexual self-confidence level are important factors in breastfeeding women, maternal attachment does not affect sexual self-confidence. Nurses should discuss sexual self-confidence and the factors that influence it, considering how it can increase comfort as well as the ability to interact effectively with women.

Limitations

Research results can only be generalized to the region where the research was conducted. It represents the sample group. The cultural structure of Turkish society on sexuality and the inability to talk about sexuality comfortably are the limitations of the research. The fact that the research had to be done online during the COVID-19 process triggered this problem. It is thought that it would be more appropriate to conduct similar sexuality studies in the future.

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Data Availability The data that support the findings of this study are available from the corresponding author upon reasonable request.

Declarations

Ethics Approval Ethics committee approval with the number 2022/02 was obtained on February 17, 2022, from the KTO Karatay University Medical Faculty Non-Pharmaceutical and Medical Device Research Ethics Committee to conduct the study. An explanation was given in writing that women were free to participate or not to participate in the research, and their consent was obtained. The data used in this study were de-identified before use. While the research was being conducted, it was planned and implemented by the Declaration of Helsinki.

Consent to Participate Informed consent was obtained from all individual participants included in the study.

Consent for Publication No identifying details of participants are included in this manuscript.

Competing Interests The authors declare no competing interests.

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