## **Original Article**

# The Effect of Mother's Breastsleeping Behavior on Attachment and Postpartum Sleep Quality

ES Çağan, E Solmaz, R Taşkın, A Ekşioğlu<sup>1</sup>

Midwifery Department, Faculty of Health Science, Ağrı Ibrahim Çeçen University, Ağrı, <sup>1</sup>Midwifery Department, Faculty of Health Science, Ege University, Ağrı, Turkey

Received: 07-Jun-2024; Revision: 25-Sep-2024; Accepted: 30-Sep-2024; Published: 04-Dec-2024

### INTRODUCTION

Mothers' body is the only environment in Which the baby adapts, and even science and technology have not yet produced anything to replace her.<sup>[1]</sup> In recent years, literature has suggested that it is recommended for the mother and baby to have as much contact as possible.<sup>[2,3]</sup> There are opinions that argue that this situation can be continued safely day and night.<sup>[4]</sup> The concept of breastfeeding sleep is an application that supports this view. Nowadays, the increasing importance of mother-infant contact, the significant impact of mother and baby's sleep quality, and the positive effects on breastfeeding are factors that make breastfeeding sleep important.<sup>[5]</sup>

The concept of breastsleeping emerged in 2016. Mobbs and colleagues (2016) explained the necessity and benefits of continuous contact, including co-sleeping between the mother and the baby, to establish an optimal

Access this article online			
Quick Response Code:	Website: www.njcponline.com		
	DOI: 10.4103/njcp.njcp_383_24		

Background: Nowadays, the increasing importance of mother-infant contact, the significant impact of mother and baby's sleep quality, and the positive effects on breastfeeding are factors that make breastfeeding sleep important. Aim: The aim of this study was to examine the effect of mothers' breastsleeping behavior on attachment and postpartum sleep quality. Methods: This study is cross-sectional. The research was conducted with 202 mothers. The data of the study were collected using a descriptive information form, the Maternal Attachment Scale (MAS), and the Postpartum Sleep Quality Scale (PSOS). Data were analyzed using the Statistical Package for the Social Sciences (SPSS) (IBM SPSS Statistics for Windows, version 22.0. Armonk, NY: IBM Corp.) for Windows 22.0 software. **Results:** There was no statistically significant difference between the groups in terms of the MAS score and PSQS score of mothers who breastsleep and mothers who did not. No statistically significant difference was found when the mothers' socio-demographic characteristics, breastsleeping-related characteristics, maternal attachment, and sleep quality mean scores were compared (P > 0.05). **Conclusion:** The literature is very limited in assessing the effects of breastsleeping on mothers' sleep quality and attachment. This study found that breastsleeping did not affect maternal sleep quality and attachment.

Keywords: Attachment, breastsleeping, postpartum, sleep

breastfeeding, newborn bonding, and brain development foundation.<sup>[6]</sup> Breastsleep involves first sleeping next to the breastfed baby and lying on one's back. To support this model, James McKenna and Lee Gettler have defined the concept of breastsleep. This concept refers to bed-sharing between a breastfeeding mother and her baby in a risk-free environment, free from any risk factors. Sleeping together with the baby is considered a safe form of bed-sharing that has been practiced throughout human history.<sup>[7]</sup>

There are opinions that argue that there are both benefits and risks of breastsleeping. Especially since the twentieth century, practices, such as putting babies

Address for correspondence: E Solmaz, Midwifery Department, Faculty of Health Science, Ağrı Ibrahim Çeçen University, Ağrı, Turkey. E-mail: esolmaz@agri.edu.tr

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow\_reprints@wolterskluwer.com

How to cite this article: Çağan ES, Solmaz E, Taşkın R, Ekşioğlu A. The effect of mother's breastsleeping behavior on attachment and postpartum sleep quality. Niger J Clin Pract 2024;27:1293-9.

to sleep in separate "boxes" away from their mothers, social pressures for babies to sleep alone, and promotion of formula feeding instead of breastfeeding, have portrayed breastsleeping in a negative light.<sup>[1,8-10]</sup> As interest in breastsleeping has increased, concerns about breastfeeding as a risk for sudden infant death syndrome and other sleep-related forms of infant death have gained prominence as a public health issue.<sup>[1]</sup> The negative effects of breastsleeping on mothers are also mentioned. It is stated that the anxiety about the risk of suffocation of the baby during breastfeeding affects the sleep quality of mothers.<sup>[5,10]</sup>

The American Academy of Paediatrics (AAP) (2016) recommends that parents avoid bed-sharing (same room, same bed) and sleeping alone (separate room, separate bed) to reduce the risk of sudden infant death syndrome while recommending room sharing (same room, separate bed) during the first 6 months of an infant's life.<sup>[11]</sup> In order to minimize the risk of infant mortality, it is important to practice breastsleeping safely. Breastsleeping is a universal and common practice. Many parents may be concerned about where the baby should sleep, whether it is appropriate to sleep with the baby, and in which position the baby should sleep.<sup>[5]</sup>

The literature on breastsleep is quite limited, and there are very few studies examining the effect of breastsleep on mothers' sleep quality and attachment. In addition, mothers may not have sufficient knowledge about what the concept of breastsleeping, and its benefits and risks. This study aimed to examine the effect of mothers' breastsleeping behavior on attachment and postpartum sleep quality.

## MATERIALS AND METHODS

**Study design:** This study is a cross-sectional study designed to examine the effect of mothers' breastsleeping behavior on attachment and postnatal sleep quality. Ethical approval for the research was obtained from Ağrı İbrahim Çeçen University Scientific Research Ethics Committee (decision no. 38 dated 22.02.2023).

**Study area:** The study was conducted between March and August 2023 in the Pediatric Outpatient Clinic of Ağrı Training and Research Hospital in Ağrı, Turkey.

**Study sample:** The population of the study consisted of mothers who applied to the Pediatric Outpatient Clinic of Ağrı Training and Research Hospital in Ağrı, Turkey, between March and August 2023. In the inclusion criteria of the study, it was taken into consideration that the woman was breastfeeding her baby, the baby was between 2 weeks and 6 months, and the woman gave consent to participate. Women whose babies were older

than 6 months and who did not want to participate were not included in the study. OpenEpi info program was used to calculate the sample size. In the study of Volkovich *et al.*<sup>[12]</sup> in 2015, the minimum sample size was determined as 112 women with a 5% margin of error and 95% power in the calculation made by taking into account the mother and baby bed-sharing rate (16%), and a total of 202 women participated in the study.

#### Data collection methods and tools

Face-to-face interview method was used to collect the research data, and the forms used are presented below. Informed consent form was signed by the mothers who agreed to participate in the study.

*Descriptive Information Form:* The form developed by the researchers consisted of a total of 41 questions, including 13 questions about socio-demographic information, 11 questions about fertility characteristics, and 17 questions about breastfeeding and breastsleep.<sup>[7,8]</sup>

*Maternal Attachment Scale (MAS):* The Maternal Attachment Scale (MAS) was developed by Mary E. Muller in 1994 to "measure maternal affection and attachment," and its Turkish validity and reliability was performed by Kavlak and Şirin in 2009. The scale consists of 26 items in 4-point Likert type (always: 4 points, often: 3 points, sometimes: 2 points, and never: 1 point). The minimum score that can be obtained from the scale is 26 and the maximum score is 104, and a high score indicates a high level of mother-infant attachment. In Kavlak and Şirin's (2009) study, the Cronbach alpha value of the scale was 0.77 in the first application (1<sup>st</sup> month) and 0.82 in the second application (4<sup>th</sup> month).<sup>[13]</sup> In our study, the Cronbach alpha value of the scale was determined to be 0.73.

Postpartum Sleep Quality Scale (PSQS): The Postpartum Sleep Quality Scale (PSQS) developed by Yang, Yu, and Chen (2013) is a reliable (Cronbach  $\alpha$ : 0.81) scale consisting of 14 items and three sub-dimensions measuring the sleep quality of women in the 2<sup>nd</sup> week postpartum and beyond. The first sub-dimension is "Sleep problems related to baby care," the second sub-dimension is "Sleep problems related to physical symptoms," and the third sub-dimension is "Good sleep quality." The items of this scale are scored between 0 and 4 on a 5-point Likert scale (0 never, 1 rarely, 2 sometimes, 3 often, and 4 always). The 1st, 2nd, and 14th items in the scale are reverse-scored. The lowest score of 0 and the highest score of 56 can be obtained from the scale. The scale has no cut-off point. An increase in the score obtained from the scale indicates a decrease in sleep quality.<sup>[14]</sup> The Turkish validity and



reliability study of the PSQS was conducted by Boz and Selvi (2017). In the studies of Boz and Selvi, the Cronbach alpha value of the scale was determined to be 0.82.<sup>[15]</sup> In our study, the Cronbach alpha value of the scale was determined to be 0.68.

#### Analyzing the data

The data obtained in the study were analyzed using the Statistical Package for the Social Sciences (SPSS) (IBM SPSS Statistics for Windows, version 22.0. Armonk, NY: IBM Corp.) for Windows 22.0 software. Number, percentage, mean, and standard deviation were used as descriptive statistical methods in the evaluation of the data. The compatibility of the variables in the study with normal distribution was evaluated by the Kolmogorov-Smirnov analysis. As the MAS did not show normal distribution, non-parametric tests were applied and parametric tests were applied in PSQS evaluation. Student's t-test and Mann-Whitney U-test were used to compare the data between two independent groups, and one-way (one-way) analysis of variance (ANOVA) test was used to compare more than two independent groups. Statistical evaluation was considered significant if P < 0.05.

#### RESULTS

The mean age of the mothers who participated in the study was  $26.40\pm5.31$  years (min: 19, max: 44). About 43.1% of the participants are between the ages of 19 and 24, and 52.9% are primary school graduates. The findings related to the socio-demographic characteristics of the participants are presented in Table 1.

According to the characteristics of the participants regarding obstetrics, breastfeeding, and breastsleeping, the age at first pregnancy was 22.08±3.73 years (min: 15, max: 32). The total number of pregnancies was  $2.50\pm1.59$  (min: 1, max: 7), and the number of living children was 2.13±1.20 (min: 1, max: 5). About 39.1% stated that they received breastfeeding information from the midwife. Of the mothers, 45.5% stated that they had not heard of skin-to-skin contact before. The mean duration of breastfeeding of the mothers' previous children was 16.58±9.80. About 72.8% stated that they put their babies to sleep on the breast, 75.6% thought that breast sleep was beneficial, 55.6% stated that breast sleep calmed their babies, 76.4% stated that breast sleep affected sleep quality, and 82.3% of the mothers who stated that breast sleep affected sleep quality stated that breastsleeping positively affected sleep quality [Table 2].

When the MAS score and PSQS score of the mothers who applied and did not apply breastsleeping were evaluated, it was found that there was no statistically significant difference between the groups [Table 3].

Table 1: Socio-demographic characteristics of the participants				
Variables	Number	Percentage		
Age group				
19-24	87	43.1		
25-29	61	30.2		
30-34	37	18.3		
35 years and over	17	8.4		
Education level				
Literate	19	9.5		
Primary education	107	52.9		
High school and equivalent	34	16.8		
College/university	42	20.8		
Employment status				
Yes	18	8.9		
No	184	91.1		
Health security status				
Yes	102	50.5		
No	100	49.5		
Father education				
Illiterate	11	5.5		
Primary education	87	43.1		
High school and equivalent	50	24.8		
College/university	54	26.6		
Father's employment status				
Yes	187	92.6		
No	15	7.4		
Family type				
Core family	134	66.3		
Large family	68	33.7		
Total	202	100		

No statistically significant difference was found when the mothers' socio-demographic characteristics, breastsleeping-related characteristics, maternal attachment, and sleep quality mean scores were compared (P > 0.05) [Table 4].

#### DISCUSSION

One of the biggest problems that concerns families in the care of the newborn is where and how the newborn will sleep.<sup>[16]</sup> While some parents prefer their babies to sleep in the same room and bed with them, others may choose to sleep in a separate bed in the same room or in a completely separate room. In this study, the particular focus was on the mothers' preference for breastsleeping and the effect of breastsleeping on their sleep quality. In this study, 92.6% of the participants stated that they slept with their babies in the same room but in different beds, 4% of them slept in the same room and in the same bed, and 3.5% of them put their babies to sleep in separate rooms. In addition, it is seen that three of every four mothers experienced breastsleeping within the scope of the study. When the literature is examined,

obstetrics, breastfeeding, and breastsleeping			
Variables	Number	Percentage	
Planned pregnancy status			
Yes	183	90.6	
No	19	9.4	
Last mode of birth			
Vaginal birth	95	47.0	
Cesarean section	107	53.0	
Child gender			
Girl	82	40.6	
Boy	120	59.4	
Status of breastfeeding education			
No information received	7	3.5	
Midwife	79	39.1	
Nurse	46	22.8	
Physician	15	7.4	
Relatives/friends	32	15.8	
Internet/book	23	11.4	
Rocking your baby to sleep			
Yes	112	55.4	
No	90	44.6	
Singing your baby to sleep			
Yes	21	10.4	
No	181	89.6	
Putting your baby to sleep by breastfeeding	101	07.0	
Yes	96	47 5	
No	106	52.5	
Breastsleening experience	100	02.0	
Yes	147	72.8	
No	55	27.2	
Baby's sleening place	55	27.2	
Separate hed in the same room with	187	92.6	
parents	107	12.0	
Same room, same bed with parents	8	4.0	
Separate room from parents separate bed	7	3 5	
Thinking that breastsleeping is beneficial	,	010	
Yes	131	89.1	
No	16	10.9	
Benefits of breastsleep $(n: 135)$	10	1000	
It calmed my baby	75	55.6	
It increased my bond with my baby	28	20.7	
Increased the amount of breastmilk	17	12.6	
It accelerated my baby's growth	15	11.1	
The effect of breastsleep on sleep quality	15	11.1	
( <i>n</i> : 144)			
Yes	110	76.4	
No	34	23.6	
How did breastsleep affect sleep quality?	51	23.0	
Positive	90	81.8	
Negative	20	18.2	
Total	20	10.2	
Total	202	100	

Table 2: Characteristics of the participants regarding

it is seen that the frequency of breastsleeping practice varies between 28 and 58%.<sup>[8,17-19]</sup> It is seen that the result obtained in this study is higher than the results of

1296

other studies. The possible reason for this practice can be explained by the fact that breastfeeding culture is quite common in Turkey and putting the baby to sleep at the breast is a behavior in accordance with social norms. In addition, in this study, putting the baby to sleep by breastfeeding was found to be a common practice, and putting the baby to sleep on the breast may also be used as a method to establish and maintain the sleep routine of infants.

Postnatal infant sleep and parental sleep are inextricably linked. Breastfeeding mothers often find themselves in a sleep environment punctuated by night feedings.<sup>[20]</sup> A review of the literature shows that when the mother sleeps in the same room with her infant, the mother's sleep is more disrupted, resulting in shorter sleep duration.<sup>[12]</sup> There are also contrary views, and there are also results reporting that mothers who practice safe breastsleeping have less sleep interruption and better quality sleep.<sup>[9]</sup> In this study, mothers stated that breastfeeding had a positive effect on sleep quality. In particular, the most frequently reported positive effect of breastsleeping by mothers was expressed as calming the baby. The fact that mothers have this view shows that they have positive breastsleeping experiences. In addition, breastsleeping may have relaxed the baby with the effect of factors, such as the mother's temperature and heartbeat and helped babies to sleep calmly. Barry drew attention to the increased sleep quality of mothers who practiced breastfeeding, emphasized that synchronized sleep behaviors between mother and infant increased, and the mother relaxed and therefore transitioned to deep sleep more easily.<sup>[9]</sup> In Gettler and MacKenna's study, it was found that mothers breastfeed twice as many nights on days when they applied breastsleeping compared to days when they did not apply breastsleeping.<sup>[21]</sup>

The frequent and sometimes unpredictable nature of breastfeeding sessions, especially during the night, can disrupt the continuity and depth of a mother's sleep, affecting overall sleep quality.<sup>[22]</sup> In this study, no statistically significant difference was found when breastsleeping and PSQS scores were compared. However, four of every five mothers who participated in the study emphasized that breastfeeding behavior positively affected their sleep quality. Mothers may have thought that the baby's sleeping on the breast was more relaxing and could improve their own sleep quality. At the same time, the perception that breastfeeding in the resting position in bed relaxes the person and that breastfeeding has a positive effect on sleep quality because it is an aspect of breastfeeding that does not require extra performance compared to other feeding methods may be dominant. However, the debate on

Nigerian Journal of Clinical Practice ¦ Volume 27 ¦ Issue 11 ¦ November 2024

Table 3: Mothers' breastsleeping experience, maternal attachment, and mean sleep quality scores					
Variable	Breastsleeping practitioners (n: 147)	Not applying breastsleeping (n: 55)	Statistical	Р	
	Mean±SD	Mean±SD	value/t-U		
MAS score*	103.2±1.8	103.4±1.7	-3642.0	0.143	
PSQS score**	27.6±6.6	27.0±7.5	0.48	0.631	
* 3.6 / 1.4 // 1					

\* Maternal Attachment Scale, \*\*Postpartum Sleep Quality Scale

Table 4: Comparison of MAS and PSOS scores according to some characteristics of the mother					
Variables	n	MAS score*	PSQS score**		
		Mean±SS	Mean±SS		
Planned pregnancy status					
Yes	183	103.2±1.9	27.3±6.7		
No	19	103.6±0.6	28.2±7.8		
Statistical value/ $t$ - $U$ - $F$ and $P$		<i>U</i> : 1723.5	<i>t</i> :-0.47		
		P: 0.933	P: 0.637		
Child gender					
Girl	82	103.3±1.8	27.0±7.2		
Boy	120	$103.2 \pm 2.1$	27.7±6.6		
Statistical value/ $t$ - $U$ - $F$ and $P$		<i>U</i> : 4501.0	<i>t</i> :-0.63		
		P: 0.165	P: 0.527		
Baby's sleeping place					
Separate bed in the same room with parents	187	103.2±1.8	27.4±6.6		
Same room, same bed with parents	8	103.6±0.7	26.1±6.9		
Separate room from parents, separate bed	7	103.5±0.7	28.2±12.0		
Statistical value/ $t$ - $U$ - $F$ and $P$		F: 0.04	<i>F</i> : 0.19		
		P: 0.978	P: 0.820		
Thinking that breastsleeping is beneficial					
Yes	131	$103.1 \pm 2.0$	27.5±6.6		
No	16	103.6±0.9	28.4±6.3		
Statistical value/ $t$ - $U$ - $F$ and $P$		<i>U</i> : 3085.0	<i>t</i> :-0.53		
		P: 0.060	P: 0.595		
Benefits of breastsleeping (n: 135)					
Calmed my baby	75	$103.3 \pm 1.8$	27.3±6.5		
Increased bonding with my baby	28	$102.6 \pm 2.0$	28.0±7.1		
Increased the amount of breastmilk	17	$103.8 {\pm} 0.5$	29.4±7.2		
Accelerated the growth of my baby	15	102.5±2.9	26.5±6.4		
Statistical value/ $t$ - $U$ - $F$ and $P$		F: 5.86	F: 0.58		
		<i>P</i> : 0.119	P: 0.629		
The effect of breastsleeping on sleep quality (n: 144)					
Yes	110	$103.3 \pm 1.7$	28.1±6.9		
No	34	102.6±2.4	26.2±5.4		
Statistical value/t-U-F and P		<i>U</i> : 1605.5	<i>t</i> : 1.47		
		P: 0.108	<i>P</i> : 0.143		
How did breastsleeping affect sleep quality?					
Positive	93	103.2±1.9	27.7±6.7		
Negative	20	$103.1 \pm 1.8$	30.0±7.5		
Statistical value/ <i>t</i> - <i>U</i> - <i>F</i> and <i>P</i>		<i>U</i> : 1747.5	<i>t</i> :-1.31		
		<i>P</i> : 0.980	P: 0.190		

\*Maternal Attachment Scale, \*\*Postpartum Sleep Quality Scale

how breastfeeding affects mothers' own sleep quality continues. Some research suggests that mothers who practice breastfeeding sleep, putting their babies to sleep by breastfeeding at the breast which helps the baby to fall asleep quickly and therefore may contribute to mothers feeling more rested.<sup>[23]</sup> Crittenden *et al.*<sup>[24]</sup> found that the sleep duration of mothers who applied breastsleeping increased, but there was no statistically significant

difference in sleep quality compared to mothers who did not apply breastsleeping. The study results support the breastsleeping literature. Although it is difficult to determine a clear superiority on sleep quality between mothers who practice breastsleeping and mothers who do not practice breastsleeping, sleep quality can vary greatly between individuals; therefore, it is important in terms of showing that research supporting this result is needed.

Breastfeeding is a topic of interest in understanding how it can influence the quality of the mother-infant attachment relationship, and there is much evidence for its positive effects. However, research on how breastfeeding affects sleep behavior is limited. Researchers who support co-sleeping of mother and baby argue that sharing the same bed with the baby promotes a stronger parent-infant attachment.<sup>[9,25]</sup> It is also explained that breastfeeding increases physical closeness and physical contact between mother and baby, which is important in promoting secure attachment.<sup>[4]</sup> Societies that care about individualism generally see breastfeeding as an undesirable situation due to the perception that it will prevent the development of independence in infants.<sup>[26]</sup> When the literature was examined, it was observed that the relationship between breast sleep and secure attachment has not been sufficiently investigated. In this study, when the effect of breastsleeping on maternal attachment was analyzed, it was found that it did not create a statistically significant difference. Although breastfeeding behavior was high in the population we studied and was considered positive for the infant, no difference was found in terms of attachment between breastsleepings and non-breastsleepings. Similar results are found in the literature. According to the study of Mileva-Seitz et al.,[27] it was reported that infants who did not share any bed with their parents at the age of 2 months had a significantly higher likelihood of insecure attachment at the age of 14 months compared to infants with any bed-sharing. Wan and Vries also found that breastsleeping behavior did not affect secure attachment between mother and infant.<sup>[28]</sup> According to Bilgin and Wolke's study,<sup>[29]</sup> it was found that there was no significant difference between breastsleeping and attachment. A study by Horta and colleagues revealed that the quality of mother-infant attachment is not only determined by the feeding method, but is significantly affected by the mother's emotional bond and sensitivity.[30] It can be considered that many factors are effective in creating secure attachment; therefore, a direct relationship cannot be established between only breastsleeping behavior and secure attachment.

#### Limitations

The limitations of the study included the fact that the study was conducted in a single region and on a specific sample.

#### CONCLUSIONS

This study showed that the practice of breastsleeping is a common practice among mothers. However, the available information suggests that mothers are limited in evaluating the effects of breastsleeping on sleep quality and attachment. Further research and in-depth studies are needed to reach more definitive conclusions on this issue. The practice of breastsleeping may vary depending on cultural, socioeconomic, and individual factors. Therefore, the effects of this practice on sleep quality and attachment should include a wider range of participants, taking into account cultural and individual differences. Especially midwives can reach parents more easily on issues, such as baby care in the postpartum period. Therefore, it is recommended that families should be informed about both the risks and benefits of breastsleeping.

#### Author(s) contribution(s)

ESÇ, ES, RT, and AE conceptualized and designed the study. ESÇ, ES, RT, and AE were involved in data collection/acquisition and statistical analysis. All authors (ESÇ, ES, RT, and AE) were involved in the writing and revising of the manuscript for intellectual content. All authors read and approved the final manuscript and agreed to be accountable for all aspects of the work.

#### **Ethical approval**

The approval for the research was obtained from Ağrı İbrahim Çeçen University Scientific Research Ethics Committee (decision dated 22.02.2023 and numbered 38).

#### Informed consent

Written informed consent was obtained from the mothers during the data collection phase of the study.

#### **Declaration of Helsinki**

The study was conducted according to the principles of the Helsinki Declaration.

#### Availability of research data

The authors are available and ready to supply the data upon any requests through the corresponding author.

#### Acknowledgement

We thank the participants who participated in the study.

Financial support and sponsorship Nil.

1298

#### **Conflicts of interest**

There are no conflicts of interest.

#### References

- Bartick M, Young M, Louis-Jacques A, McKenna JJ, Ball H. Bedsharing may partially explain the reduced risk of sleep-related death in breastfed infants. Front Pediatr 2022;10:2218.
- Karimi FZ, Sadeghi R, Maleki-Saghooni N. The effect of mother-infant skin to skin contact on success and duration of first breastfeeding: A systematic review and meta-analysis. Taiwan J Obstet Gynecol 2019;58:1-9.
- Gupta N, Deierl A, Hills E, Banerjee J. Systematic review confirmed the benefits of early skin-to-skin contact but highlighted lack of studies on very and extremely preterm infants. Acta Paediatr 2021;110:2310-5.
- Norholt H. Revisiting the roots of attachment: A review of the biological and psychological effects of maternal skin-to-skin contact and carrying of full-term infants. Infant Behav Dev 2020;60:101441.
- McKenna JJ, Gettler LT. There is no such thing as infant sleep, there is no such thing as breastfeeding, there is only breastsleeping. Acta Paediatr 2016;105:17-21.
- Mobbs EJ, Mobbs GA, Mobbs AE. Imprinting, latchment and displacement: A mini review of early instinctual behaviour in newborn infants influencing breastfeeding success. Acta Paediatr 2016;105:24-30.
- Lerner RE, Camerota M, Tully KP, Propper C. Associations between mother-infant bed-sharing practices and infant affect and behavior during the still-face paradigm. Infant Behav Dev 2020;60:101464.
- Ball HL, Howel D, Bryant A, Best E, Russel C, Wars-Platt M. Bed-sharing by breastfeeding mothers: Who bed-shares and what is the relationship with breastfeeding duration? Acta Paediatr 2016;105:628-34.
- Barry ES. Co-sleeping as a proximal context for infant development: The importance of physical touch. Infant Behav Dev 2019;57:101385.
- Marinelli KA, Ball HL, McKenna JJ, Blair PS. An integrated analysis of maternal-infant sleep, breastfeeding, and sudden infant death syndrome research supporting a balanced discourse. J Hum Lact 2019;35:510-20.
- 11. American Academy of Pediatrics. SIDS and other sleep-related infant deaths: Updated 2016 recommendations for a safe infant sleeping environment. Pediatrics 2016;138:1–12.
- Volkovich E, Bar-Kalifa E, Meiri G, Tikotzky L. Motherinfant sleep patterns and parental functioning of room-sharing and solitary-sleeping families: A longitudinal study from 3 to 18 months. Sleep 2018;41:zsx207. doi: 10.1093/sleep/zsx207.
- Kavlak O, Şirin A. Maternal bağlanma ölçeğinin Türk toplumuna uyarlanması. Uluslararası İnsan Bilimleri Dergisi 2009;6:188-202.
- Yang CL, Yu CH, Chen CH. Development and validation of the postpartum sleep quality scale. J Nurs Res 2013;21:148-54.

- Boz İ, Selvi N. Testing the psychometric properties of the postpartum sleep quality scale in Turkish women. J Nurs Res 2018;26:385-92.
- Asadi M, Noroozi M, Alavi M. Factors affecting women's adjustment to postpartum changes: A narrative review. Iran J Nurs Midwifery Res 2020;25:463-70.
- Kadakia A, Joyner B, Tender J, Oden R, Moon RY. Breastfeeding in African Americans may not depend on sleep arrangement: A mixed-methods study. Clin Pediatr 2015;54:47-53.
- Tokutake C, Haga A, Sakaguchi K, Samejima A, Yoneyama M, Yokokawa Y, *et al.* Infant suffocation incidents related to co-sleeping or breastfeeding in the side-lying position in Japan. Tohoku J Exp Med 2018;246:121-30.
- Bailey C, Tawia S, McGuire E. Breastfeeding duration and infant sleep location in a cohort of volunteer breastfeeding counselors. J Hum Lact 2020;36:354-64.
- Du C, Tucker RM, Yang CL. How are you sleeping? Why nutrition professionals should ask their patients about sleep habits. J Am Nutr Assoc 2023;42:263-73.
- Gettler L, McKenna J. Never sleep with baby? Or keep me close but keep me safe: Eliminating inappropriate "safe infant sleep" rhetoric in the United States. Curr Pediatr Rev 2010;6:71-7.
- Bay H, Eksioglu A, Soğukpınar N, Ceber Turfan E. The effect of postpartum sleep quality on mothers' breastfeeding self-efficacy level. Early Child Dev Care 2023;193:235-46.
- Smith AM, Saleh L. A narrative review of maternal sleep issues with a focus on mental health in the postpartum period. SN Compr Clin Med 2021;3:1165-76.
- Crittenden AN, Samson DR, Herlosky KN, Mabulla IA, Mabulla AZP, McKenna JJ. Infant co-sleeping patterns and maternal sleep quality among Hadza hunter-gatherers. Sleep Health 2018;4:527-34.
- Salm Ward TC, Doering JJ. Application of a socio-ecological model to mother-infant bed-sharing. Health Educ Behav 2014;41:577-89.
- Germo GR, Chang ES, Keller MA, Goldberg WA. Child sleep arrangements and family life: Perspectives from mothers and fathers. Infant Child Dev 2007;16:433–56.
- Mileva-Seitz VR, BakermansKranenburg MJ, Battaini C. Parent-child bed-sharing: The good, the bad, and the burden of evidence. Sleep Med Rev 2017;32:4–27.
- Wan YM, de Vries M. Malaysian young adults' attachment patterns: The relationship with experienced parenting and co-sleeping. J Psikol Malays 2023;37:40-52.
- Bilgin, A, Wolke D. Bed-sharing in the first 6 months: Associations with infant-mother attachment, infant attention, maternal bonding, and sensitivity at 18 months. J Dev Behav Pediatr 2022;43:e9-19.
- 30. Horta BL, Loret de Mola C, Victora CG. Long-term consequences of breastfeeding on cholesterol, obesity, systolic blood pressure and type 2 diabetes: A systematic review and meta-analysis. Acta Paediatr 2015;104:30-7.