

Yenidoğan Yoğun Bakım Servisinde Bebeği Yatan Obez ve Obez Olmayan Annelerin Emzirme Tutumlarının Yeme Tutumları ve Beden Algısı ile İlişkisi

The Relationship of the Breastfeeding Attitude with Eating Attitude and Body Image of Obese and Non-Obese Mothers with Babies Hospitalized in the Neonatal Intensive Care Unit

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ÖZ

Amaç: Araştırma obez ve obez olmayan annelerin emzirme tutumlarının, yeme tutumu ve beden algısı ile ilişkisini belirlemek amacıyla yapılmıştır.

Materyal ve Metot: Tanımlayıcı araştırmanın örneklemini 248 kadın (obez=120; obez olmayan=128) oluşturmuştur. Veriler Kişisel Bilgi Formu, Emzirme Tutumunu Değerlendirme Ölçeği (ETDÖ), Yeme Tutumu Testi (YTT) ve Beden Algısı Ölçeği (BAÖ) ile toplanmıştır.

Bulgular: Obez annelerin %14.2'sinin, obez olmayan annelerin ise %14.1'inin yeme tutum bozukluğuna yatkın olduğu saptanmıştır. ETDÖ puanları ile YTT puanları arasında obez ($r=-0,284$; $p=0,002$) ve obez olmayan kadınlarda ($r=-0,371$; $p=0,000$) istatistiksel olarak anlamlı zayıf negatif ilişki vardır. ETDÖ ile BAÖ puanları arasında istatistiksel olarak anlamlı ilişki saptanmamıştır ($p>0,05$).

Sonuç: Obez ve obez olmayan kadınların emzirme tutumu ile beden algısı arasında ilişki bulunmazken hem obez hem de obez olmayan kadınların olumlu emzirme tutumları arttıkça yeme davranışı bozukluğuna yatkınlık da azalmaktadır. Bu bulgulara göre kadınlarda olumlu emzirme davranışlarının desteklenmesi önerilmektedir.

Anahtar Kelimeler: Emzirme, obezite, tutum, vücut kütle indeksi, yeme

ABSTRACT

Objective: The research was conducted to determine the relationship between obese and non-obese mothers' breastfeeding attitudes with eating attitudes and body perception.

Materials and Methods: The sample of the descriptive study consisted of 248 mothers (obese:120; non-obese=128). The data were collected with the Personal Information Form, Breastfeeding Attitudes of the Evaluation Scale (BAES), Eating Attitudes Test (EAT) and Body Perception Scale (BPS).

Results: It was determined that 14.2% of obese mothers and 14.1% of non-obese mothers were prone to eating attitude disorders. There was a weak statistically significant negative relationship between BAES and the EAT scores of obese ($r=-0.284$; $p=0.002$) and non-obese women ($r=-0.371$; $p=0.000$). A statistically significant relationship was not determined between the BAES and BPS scores ($p>0.05$).

Conclusion: While there was no relationship between breastfeeding attitude and body perception of obese and non-obese women, the tendency to eating attitude disorder decreased as obese and non-obese mothers' positive breastfeeding attitudes increased. According to these findings, it is recommended to support a positive breastfeeding attitude in mothers.

Keywords: Breastfeeding, obesity, attitude, body mass index, eating

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Yayın Bilgisi / Article Info:

Gönderi Tarihi/ Received: 12/03/2022

Kabul Tarihi/ Accepted: 04/10/2022

Online Yayın Tarihi/ Published: 10/12/2022

INTRODUCTION

World Health Organization (WHO) defines “obesity as abnormal or excessive fat accumulation that presents a health risk”.¹ This situation has become an increasing risk that affects the health and quality of life of individuals worldwide.^{2,3} Obesity is a severe health problem in both developing and developed countries.² It has started to become a serious public health problem in Türkiye by increasing significantly in the last 20 years.⁴

Obesity affects women's health negatively and creates an important risk factor for both morbidity and mortality.⁴ Female-specific life periods such as gestation period, number of births, breastfeeding period and menopausal period are considered as risky periods in terms of obesity.⁵ Although it is estimated that the incidence of obesity in pregnant women in the world is between 18.5% and 38.3%, there is insufficient information describing its prevalence.^{5,6}

Mother's being obese can also cause problems with the initiation and maintenance of breastfeeding and decreased breastfeeding desire.⁷ In a study, it was reported that both obesity before pregnancy and insufficient weight gain during pregnancy had a negative effect on breastfeeding.²

Problems associated with breastfeeding can also negatively affect women's health and body perception.^{8,9} Increasing obesity rate causes breastfeeding rates to decrease by increasing body perception concerns.¹⁰ It is also reported that women who are ashamed of breastfeeding or do not like the changes that may occur in breasts with breastfeeding are less likely to initiate or maintain breastfeeding.¹¹

It is stated in the literature that obese women with health problems or birth complications related to breastfeeding breastfed about 1.4 times less than normal-weight women and stopped breastfeeding earlier.^{8,9} In this context, evidence-based information is needed in the literature on whether breastfeeding, which has an important place in the life of mother and baby, is associated with breastfeeding attitudes, eating needs and body perception of obese women. In particular, it is thought that the findings obtained from this research will contribute to the planning of the care that will be applied to postpartum women. Besides, it is important to determine the breastfeeding attitudes of mothers whose babies are hospitalized in the neonatal intensive care unit in order to maintain regular breastfeeding hours, to ensure effective breastfeeding and to be able to follow up breastfeeding. This study was conducted to determine the relationship between breastfeeding attitudes and body perception of obese and non-obese women. In the study, it was aimed to determine the relationship between obese and non-obese mothers' breastfeeding attitudes with eating attitudes and

body perception.

MATERIALS AND METHODS

Ethics Committee Approval: Ethical approval was obtained from the Ethics Board (date: 10.10.2018, decision no: 2018-10/3) and written permission was obtained from the hospital where the study was conducted. No personal information was written on the data collection form to ensure the privacy. The research was carried out according to the Helsinki Declaration Principles.

Setting and Sample: The population of this descriptive research consisted of all women whose babies had a care in the neonatal intensive care unit of a state hospital located in the Central Anatolia Region and who breastfed their babies (Sivas/Türkiye). There is first, second and third levels in the neonatal intensive care unit. While the term and breastfed infants exist at every level, there are also preterm babies in the 2nd and 3rd level neonatal intensive care units. Infants are breastfed every three hours and fed at least eight times in 24 hours. In case of crying, the number of breastfeeding increases. Mothers of term infants without breastfeeding contraindications were included in the study. Data forms were filled during the hospitalization of the infants. The power analysis conducted using the G power program¹² calculated a total of 270 people for both groups, with a 0.34 effect size and 5% error margin, and 90% power to be sampled. Fifteen women from the obese group and seven women from the non-obese group were excluded from the sample because they did not want to complete the research and did not fill the forms, and the study was conducted with 248 women (obese = 120; non-obese = 128). According to posthoc power analysis, a power of 0.84 was achieved with an effect size of 0.34 and a margin of error of 5%. Effective power has been reached according to the literature.¹³ Two groups were created as obese and non-obese by considering the Body Mass Index (BMI) in the research. Women with BMI 30 and above were considered obese and those below 30 were considered non-obese. The research data were collected between January 1, 2019 and December 30, 2019.

Inclusion Criteria for Women:

- Being capable of answering questions and speaking Turkish
- Having newborn infant staying at a neonatal intensive care unit
- Having BMI 30 and above (obese group)
- Having BMI below 30 (non-obese group)
- Breastfeeding their baby
- Agreeing to participate in the study

Instruments:

Personal Information Form: This form, created to determine the socio-demographic characteristics of women, includes 26 questions including age, education level, family type, economic status (17 questions) and obstetric features (9 questions).

Breastfeeding Attitudes of the Evaluation Scale (BAES): This scale was developed by Arslan in 1999 to evaluate the various dimensions of attitudes that guide mothers' breastfeeding behaviors.¹⁴ This 5-point Likert-type scale consists of 46 items. The lowest possible score from the scale is 0; the highest possible score is 184. As the score increases, the breastfeeding attitude is considered to be positive. In the validity and reliability study of the scale, the Cronbach Alpha value was found to be 0.63¹⁴ and 0.60 in our study.

Eating Attitudes Test (EAT): This scale was developed by Garner and Garfinkel in 1979.¹⁵ Their validity and reliability study were done by Savasir and Erol in 1989 to in Türkiye.¹⁶ The scale measures attitudes of individuals with eating disorders related to eating and the symptoms of possible disorders in the eating attitudes of normal people. This 6-point Likert type scale consists of 40 questions and the cutoff score is 30. The total score is obtained by summing up all question points on the scale. The increase in the total score obtained and the score above 30 are considered "susceptible to eating attitude disorder". In the validity and reliability study of EAT, the Alpha value was found to be 0.79 for anorectic patients and 0.94 for anorectic patients and the normal group.¹⁶ In our study, the Cronbach Alpha coefficient was found to be 0.80.

Body Perception Scale (BPS): This scale was developed by Secord and Jourard in 1953¹⁷ to measure how people are satisfied with various parts of their bodies and with various body functions. The reliability and validity were done by Hovardaoglu in 1989 to in Türkiye.¹⁸ The scale consists of 40 items, each item is related to an organ or part of the body or a function. The scale is scored between "I don't like at all" 1 point and "I like very much" 5 points. The lowest possible score is 40, and the highest possible score is 200. A high score obtained on the scale indicates a high level of satisfaction. The internal consistency coefficient of the Turkish form of the scale was determined to be 0.91¹⁸ and the Cronbach Alpha coefficient was determined to be 0.95 in this study.

Procedures: Women who met the research criteria, volunteered to participate in the research and who were breastfeeding their babies were included in the study. They were informed about the subject and

purpose of the research and their informed consents were obtained. After obtaining written and verbal informed consents, the height and weight of the participants were measured by the researchers, and their body mass index was calculated. Those with a body mass index of 30 and above were included in the obese group and those below 30 were included in the non-obese group. Participants in the obese and non-obese groups were selected from individuals showing similar sociodemographic and obstetric characteristics such as age, education, employment status and place of residence. The women in both groups who agreed to participate in the study were administered the Personal Information Form, BAES, EAT, BPS by the researchers in one session. Filling out the forms took about 15-20 minutes.

Statistical Analysis: Research data were evaluated by using SPSS 22.0 package program. In the data analysis, percentage distribution was used for socio-demographic characteristics and the average was used for the evaluation of scale scores. Chi-square test was used to compare the socio-demographic and obstetric characteristics of women, t-test in independent groups to compare the scale mean scores of the groups, and Pearson correlation analysis was used to determine the relationship between the variables. The results were evaluated at a 95% confidence interval and 0.05 significance level.

RESULTS

Age of obese women in the study varied between 26 and 35 (44.2%). Educational level of 39.2% of the obese women was high school graduate and above, 86.7% of these women did not work, 77.5% lived in a nuclear family. 64.2% of obese women perceived their income status at a moderate level, 65.8% of them lived in the city center and 86.7% of them stated that there were people who supported them after birth. Age of non-obese women in the study varied between 26 and 35 (44.8%). Educational level of 40.6% of the non-obese women was high school graduate and above, 87.5% of these women did not work, 75.8% lived in a nuclear family. 71.9% of non-obese women perceived their income status at a moderate level, 58.6% of them lived in the city center and 88.3% stated that there were people who supported them after birth. The socio-demographic characteristics of the obese and non-obese women were similar, and no statistically significant difference was found between the groups ($p > 0.05$, Table 1).

Table 1. Socio-demographic characteristics of obese and non-obese women (n = 248).

Characteristics		Obese (n=120)	Non-obese	Total	*c ² / ** p
		n (%)	n (%)	n (%)	
Age	18-25	50 (41.7)	58 (45.3)	108 (43.5)	4.283 / 0.117
	26-35	53 (44.2)	62 (48.4)	115 (46.4)	
	≥36	17 (14.2)	8 (6.2)	25 (10.1)	
Education status	Primary	30 (25.0)	25 (19.5)	55 (22.2)	1.131 / 0.568
	Secondary	43 (35.8)	51 (39.8)	94 (37.9)	
	High school and ↑	47 (39.2)	52 (40.6)	99 (39.9)	
Work status	Working	16 (13.3)	16 (12.5)	32 (12.9)	0.038 / 0.845
	Not-working	104 (86.7)	112 (87.5)	216 (87.1)	
Family type	Nuclear family	93 (77.5)	97 (75.8)	190 (76.6)	0.102 / 0.749
	Extended family	27 (22.5)	31 (24.2)	58 (23.4)	
Income status	Bad	9 (7.5)	12 (9.4)	21 (8.5)	3.229 / 0.199
	Moderate	77 (64.2)	92 (71.9)	169 (68.1)	
	Good	34 (28.3)	24 (18.8)	58 (23.4)	
Homeplace	City	79 (65.8)	75 (58.6)	154 (62.1)	1.585 / 0.453
	District	26 (21.7)	36 (28.1)	62 (25.0)	
	Town	15 (12.5)	17 (13.3)	32 (12.9)	
Supporting a person after birth	There is	104 (86.7)	113 (88.3)	217 (87.5)	0.148 / 0.701
	Not there is	16 (13.3)	15 (11.7)	31 (12.5)	

*: Chi-square test; **: p>0.05.

The 36.7% of pregnancies of obese women was had three or more living children. 65.8% of the women in the obese group had a vaginal delivery in their last birth, 84.2% stated that the baby was a wanted baby, 70.0% stated that the pregnancy was planned, 65.0% breastfed their previous baby and 24.2% had breastfeeding period of 24 months or more (Table 2). 64.1% of women in the non-obese group had a vaginal delivery in their last birth, 82.0% stated that the baby was a wanted baby, 67.2% stated that pregnancy was planned, 60.9% breastfed their previous baby

and 28.1% had a breastfeeding period of 24 months or more. Obstetric characteristics of obese and non-obese women (number of pregnancies, number of living children, type of delivery, status of baby fever, status of planned pregnancy, status of breastfeeding the previous baby, and status of breastfeeding time of the previous baby) were similar and no statistically significant difference was found between the groups (p>0.05, Table 2). In the study, no statistically significant difference was found between the groups of obese and non-

Table 2. Obstetric characteristics of obese and non-obese women (n = 248).

Obstetric Characteristics		Obese (n=120)	Non-Obese (n=128)	Total (n=248)	*c ² / ** p
		n (%)	n (%)	n (%)	
Number of pregnancies	One	33 (27.5)	40 (31.3)	73 (29.4)	1.418/0.492
	Two	35 (29.2)	42 (32.8)	77 (31.0)	
	Three and above	52 (43.3)	46 (35.9)	98 (39.5)	
Number of living children	One	40 (33.3)	48 (37.5)	88 (35.5)	1.696/0.428
	Two	36 (30.0)	43 (33.6)	79 (31.9)	
	Three and above	44 (36.7)	37 (28.9)	81 (32.7)	
Type of delivery	Cesarean	41 (34.2)	46 (35.9)	87 (35.1)	0.085/0.770
	Natural Vaginal Birth	79 (65.8)	82 (64.1)	161 (64.9)	
Status of Baby fever	Yes	101 (84.2)	105 (82.0)	206 (83.1)	0.201/0.736
	No	19 (15.8)	23 (18.0)	42 (16.9)	
Status of planned pregnancy	Yes	84 (70.0)	86 (67.2)	170 (68.5)	0.227/0.634
	No	36 (30.0)	42 (32.8)	78 (31.5)	
Status of breastfeeding previous baby	First Baby	38 (31.7)	47 (36.7)	85 (34.3)	0.839/0.658
	Yes	78 (65.0)	78 (60.9)	156 (62.9)	
	No	4 (3.3)	3 (2.3)	7 (2.8)	
Status of breastfeeding time of previous baby	First Baby	38 (31.7)	47 (39.7)	85 (34.3)	5.688/0.224
	non-breastfed	4 (3.3)	3 (2.3)	7 (2.8)	
	6 months	26 (21.7)	14 (10.9)	40 (16.1)	
	12 months	23 (19.2)	28 (21.9)	51 (20.6)	
	24 months and above	29 (24.2)	36 (28.1)	65 (26.2)	

*: Chi-square test; **: p>0.05.

Table 3. Obese and non-obese women’s scores on Breastfeeding Attitudes of the Evaluation Scale, Eating Attitude Test and Body Perception Scale (n = 248).

	Obese (n=120)		Non-Obese (n=128)		t / p
	Min–Max	X ± SS	Min–Max	X ± SS	
BAES total	64-136	103.49±13.58	74-145	104.73±15.36	0.669 / 0.504*
EAT total	1-84	19.81±12.16	3-58	18.75±10.37	-0.744 / 0.457*
BPS total	80-200	149.92±23.11	80-197	148.09±22.45	-0.633 / 0.527*

*: p>0.05; t: Independent sample t test; BAES: Breastfeeding Attitudes of the Evaluation Scale; EAT: Eating Attitude Test; BPS: Body Perception Scale.

obese women among their BAES, EAT and BPS scores (p>0.05, Table 3).

In the study, a statistically significant weak negative relationship was found between BAES scores and EAT scores of obese women (r = -0.284; p = 0.002) and non-obese women (r = -0.371; p = 0.000) (p < 0.05). There was no statistically significant relationship between BAES and BPS scores (p > 0.05). While there was no relationship between breastfeeding attitudes and body perceptions of obese and non-

obese women, as positive breastfeeding attitudes of both obese and non-obese women increased, their susceptibility to eating attitude disorders decreased (Table 4).

In the study, it was found that 14.2% of obese women and 14.1% of non-obese women were prone to eating attitude disorders (Table 5).

Table 4. The relationship among the Breastfeeding Attitudes of the Evaluation Scale, Eating Attitude Test and Body Perception Scale of obese and non-obese women.

	BAES			
	Obese (n=120)		Non-Obese (n=128)	
	r*	p	r*	p
EAT	-0.284**	0.002	-0.371**	0.000
BPS	0.034	0.716	0.122	0.170

*: r= pearson correlation analysis; **: Correlation is significant at the 0.01 level; AES: Breastfeeding Attitudes of the Evaluation Scale; EAT: Eating Attitude Test; BPS: Body Perception Scale.

Table 5. Eating attitude levels of obese and non-obese women.

	EAT	
	<30 n (%)	≥30 n (%)
Obese	103 (85.8)	17 (14.2)
Non-Obese	110 (85.9)	18 (14.1)

EAT: Eating Attitude Test.

DISCUSSION AND CONCLUSION

Breastfeeding attitude is critical in optimizing a baby’s health and well-being due to its short and long-term benefits for mothers, children and families.⁹ Breastfeeding attitudes of mothers are an important factor affecting the duration of breastfeeding and the possibility of starting and continuing breastfeeding.¹⁹

In this study, there is no difference between the breastfeeding attitudes of obese and non-obese women. Unlike our research findings, A study found significantly lower breastfeeding rates in women with overweight or obese body mass index.²⁰ In other studies, it was found that obese women planned to breastfeed for shorter periods than non-obese women and tended to give up breastfeeding before they

were discharged from the hospital.^{21,22} A study also stated that the breastfeeding duration of mothers who were obese before pregnancy was less than 6 months.²³ In addition, a study states that professionals should support breastfeeding techniques in the days immediately after birth to improve breastfeeding outcomes for mothers with obesity.²² Therefore, the reason for the absence of a difference in breastfeeding attitudes of women in our study is that breastfeeding is encouraged by midwives and nurses in the unit where the research is conducted.

In our study, while there was no difference between the eating attitudes of obese and non-obese women, a small part of both obese (14.2%) and non-obese women (14.1%) were prone to eating attitude disorders.

ders. These rates determined that obese and non-obese women were close to each other. In addition, as positive breastfeeding attitudes of obese and non-obese women increased, their tendency to eating attitude disorders decreased and normal eating attitudes increased. Women can maintain positive breastfeeding attitudes by gaining normal eating behaviors after birth because they are concerned about feeding their babies. In a study, it was found that mothers with a history of an eating disorder were less likely to start breastfeeding than those who did not.²⁴ Another study reported that breastfeeding of mothers with eating disorders was adversely affected, and they should be supported during this period and evaluated in terms of eating disorders.²⁵ These results are similar to our study. However, in a different study, it was stated that mothers with eating disorders had an increased risk of quitting breastfeeding earlier than 6 months after birth compared to mothers without eating disorders.²⁶

In our study, no difference was found between the body perception of obese and non-obese women. In addition, no relationship was found between breastfeeding attitudes and body perceptions of obese and non-obese women. This can be explained by the fact that breastfeeding is more important than body perception for women in Turkish society. Unlike our research findings, it has been found in other studies that anxiety about body image shortens breastfeeding time.^{10,27} In another study, it was stated that obese women were more likely to stop breastfeeding.²⁸ A study also, it is supported that women with positive body image during pregnancy have better breastfeeding attitudes.²⁹

In conclusion, the findings of our study showed that only 14.2% of obese women and 14.1% of non-obese women had tendency towards eating attitude disorders. There was no difference among breastfeeding attitudes, eating attitudes and body perceptions of obese and non-obese women. While there was no relationship between breastfeeding attitude and body perception of obese and non-obese women, as positive breastfeeding attitudes of both obese and non-obese women increased, their tendency to eating attitude disorder decreased. According to these results, it is recommended to support positive breastfeeding attitudes in women, organize nutrition training during breastfeeding, and direct individuals prone to eating attitude disorders to a specialist. The results of this study include only obese and non-obese breastfeeding women in the sample group (Türkiye) in which the study was conducted and cannot be generalized for all women. Another limitation is that the babies of mothers are hospitalized in the neonatal intensive care unit.

Ethics Committee Approval: Ethical approval was

obtained from the Ethics Board (date: 10.10.2018, decision no: 2018-10/3) and written permission was obtained from the hospital where the study was conducted. No personal information was written on the data collection form to ensure the privacy. The research was carried out according to the Helsinki Declaration Principles

Conflict of Interest: No conflict of interest was declared by the authors.

Author Contributions: Concept – HO, SEP; Supervision – SEP; Materials – HO; Data Collection and/or Processing – HÖ; Analysis and/ or Interpretation – HO, SEP; Writing – HO, SEP.

Peer-review: Externally peer-reviewed.

Acknowledgments: As authors, we would like to thank health professionals who gave support during data collection process and mothers who participated in the research.

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