



## Maternal Breastfeeding Attitudes: Pregnant Women and Factors Which Affect the Breastfeeding

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### Authors' contributions

This work was carried out in collaboration between both authors. Author SS designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Authors SS and AK managed the analyses of the study. Author AK managed the literature searches. Both authors read and approved the final manuscript.

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### ABSTRACT

**Introduction:** This study was conducted for the purpose of determining the breastfeeding attitudes of pregnant women and factors which affect the breastfeeding.

**Methods:** This study is a cross-sectional and descriptive study. The study sample consisted of 152 pregnant monitored in obstetric clinics at a university hospital in Manisa. The study data were collected by using two forms "Pregnant Information Form" and "Breastfeeding Attrition Prediction Tool".

**Results:** The mean age of pregnant women was 27.69±5.62 years. When the sub-scale score mean of the pregnant women are investigated, it has been determined that Positive Breastfeeding Attitudinal Scale (PBS) score averages 242.11±57.04, Negative Breastfeeding Attitudinal Scale (NBS) score averages 142.01 ± 52.07, Social and Professional Support Scale (SPS) score averages 209.49 ± 52.56 and Breastfeeding Control Scale (BFC) score averages 38.76 ± 6.78.

**Conclusions:** The results illustrated that with a university degree and from nuclear families and multipara and aged pregnant women had positive attitudes towards breastfeeding. It was also noted that multipara and aged pregnant women had higher control perceptions of breastfeeding.

*Keywords: Breastfeeding; attitude; pregnancy.*

## 1. INTRODUCTION

Breastfeeding provides a great deal benefits to society, mothers, and infants [1]. There are a numerous benefits breastfeeding for infant health. These benefits include: improved nutritional, developmental, immunological, and social outcomes [2]. Also there are many benefits breastfeeding for mother health. Breastfeed mothers recover faster from after childbirth and are at a low risk for many diseases including cancer, osteoporosis and obesity [3]. UNICEF and WHO have recommended in the first six months only breast milk. After the first six months, complementary feeding is recommended. In addition to these supplementary foods, breastfeeding is recommended to be continued until two years of age [4,5].

However, breastfeeding rates are not at the desired level in the world. In the United States data has shown that 3 out of 4 new mothers start out breastfeeding but only 14.6% of infants were breastfed for the first six months [6]. The Turkish Demographic and Health Study (TDHS) (2013) results have shown that, breastfeeding rate on the first day is 70.2% but the rate for breastfeeding until 6 months is 30%. Although the average duration of breastfeeding is 16 months, supplementary foods and liquids are introduced before 6 months [7].

Although common in Turkey breastfeeding exclusive breastfeeding rate is less than desired. Therefore continuous support to increase breastfeeding starting from prenatal period must be a priority [8,9,10]. Mothers' ignorance and anxiety about breastfeeding, not being sufficiently encouraged in breastfeeding, urbanization, wrong traditions, aesthetic concerns, replacing the formula foods of breastfeeding causes a decrease in breastfeeding rates. Consequently, the study was conducted in order to determine the breastfeeding attitudes of pregnant women and factors which affect the breastfeeding.

## 2. MATERIALS AND METHODS

The study is a descriptive and cross-sectional study. The study was conducted on pregnant women in their third trimester who applied to the prenatal out-patient clinic to receive prenatal care at a university hospital in Manisa. The number of

pregnant women who were treated in the hospital was 1259. By calculating 95% confidence interval using a population-based formula, it was determined that 152 pregnant women should be included in the sample. Consequently, the research was conducted with 152 pregnant women by determining the number of individuals needed to serve as a sample from the clinic by the Random Sampling Method. The inclusion criteria were: Turkish pregnant women who (1) were in their third trimester of pregnancy, (2) undertaken at least primary school education, (3) spoke Turkish, (4) were minimum 18 years of age, (5) were undergoing an uncomplicated pregnancy, (6) were planning to breastfeed.

### 2.1 Data Collection Instruments

For the collection of research data, we used a Pregnant Information Form, which consisted of 32 questions, and the Breastfeeding Attrition Prediction Tool (BAPT).

#### 2.1.1 Pregnant information form

The Form consisted of questions about their socio-demographic and marital features, income status, residence, family type (nuclear, extended etc.) and educational background.

#### 2.1.2 The breastfeeding attrition prediction tool

The validity and reliability of the Breastfeeding Attrition Prediction Tool (BAPT) were tested by Muslu et al. [11]. BAPT, developed by Janke is based on the theory of planned behavior [12]. The Turkish version of the BAPT is a 49-item instrument composed of 4 subscales. Higher scores indicated more positive attitudes toward breastfeeding. The 14-item negative breastfeeding sentiment (NBS) scale is identical in structure and scoring to the PBS scale, but contains words and phrases with negative connotations. Higher scores indicated more negative attitudes toward breastfeeding. The social and professional support (SPS) scale lists 11 categories of significant others. Higher scores indicate greater support for breastfeeding. The perceived behavioral control (PBC) scale is a set of 10 items. Higher scores indicate a stronger sense of perceived control and belief in ability to breastfeed. The scale does not have a total score, but each subscale is measured with its own total score. The Cronbach Alpha value was

found to be .80 for the PBS, .82 for the NBS, .92 for the SPS and .87 for the Breastfeeding Control [11].

## 2.2 Application Procedure and Material

In the study, the research was applied that Pregnant Information Form and The Breastfeeding Attrition Prediction Tool by using the face-to-face interview technique after the necessary explanations were made by the researcher. The data were collected within 30-45 minutes in total (Pregnant Information Form 10-15 minutes on average, Breastfeeding Attrition Prediction Tool 20-25 minutes on average).

## 2.3 Statistical Analysis

Descriptive data are presented as number, percentage and mean. The data gathered from the groups were compared with the Kruskal-Wallis Test, one-sample T test, Mann-Witney U test and Pearson Correlation Test. All analyses were carried out using the SPSS for Windows, release 15.0 (SPSS, Inc., Chicago, IL, USA). A p value of <0.05 was thought to be crucial for all analyses.

## 2.4 Ethical Approval

A written consent was obtained from all the women after explaining the purpose and method of the study, and guarantee was given for privacy of answers. After a questionnaire on sociodemographic characteristics was filled by the researcher using a face-to-face interview, it was expected that the questions on violence would be answered by the women themselves. Ethics Committee of the Celal Bayar University of Medical School approved the study protocol.

## 3. RESULTS

The pregnant women had an age average of 27.28± 5.69 years and 52.0% were in the age group of 24-29 years, 61.2% were primary school graduates, 93.0% were housewives, 78.0% had a medium economic level, 52.4% had previous

breastfeeding experience, 98.7% intended to breastfeed exclusively for the first six months, 76.3% stated that they intended to breastfeed for 1 to 2 years.

The pregnant women were found to have 242.11 ± 57.04 scores in the positive breastfeeding attitude subscale, 142.01 ± 52.07 scores in the negative breastfeeding subscale, 209.49 ± 52.56 scores in the social and professional support subscale, and 38.76 ± 6.78 scores in the breastfeeding control subscale (Table 1).

There was a statistically significant difference according to Kruskal-Wallis test between the mean of PBS, NBS, SPS and BFC and educational status of pregnant women (p <0.05). In the further analysis, it was determined that this difference is due to the "university" graduates. It was determined the study that PBS, SPS and BFC scores of pregnant women who were "university" graduates were higher whereas NBS scores are low (Table 2).

There was a statistically significant difference according to Mann-Witney U test between SPS subscale scores of the pregnant women and family type (p <0.05). In the further analysis, it was determined that SPS scores of pregnant women who living in nucleus families were higher than pregnant women living in extended families (Table 2).

There was a statistically significant difference according to one-sample T test between BFC subscale scores of the pregnant women and number of pregnancies (p <0.05). In the further analysis, it was determined that BFC scores of pregnant women who multipara were higher than primipara pregnant women (Table 2).

It was make Pearson Correlation Test that between age of pregnant women and the PBS, SPS and BFC subscale scores. It was determined that there was a moderate level in a positive correlation between age of pregnant women and the PBS, SPS and BFC subscale scores (p> 0.05) (Table 2).

**Table 1. BAPT subscales mean scores of pregnant women**

Sub-scales	n	$\bar{x}$	SD	Min	Max
Positive Breastfeeding Sentiment	152	242.11	57.04	23.00	350.00
Negative Breastfeeding Sentiment	152	142.01	52.07	33.00	273.00
Social and Professional Support	152	209.49	52.56	44.00	405.00
Breastfeeding Control	152	38.76	6.78	21.00	50.00

**Table 2. BAPT subscales mean scores according to pregnant womens characteristics**

Subscale		n	$\bar{x}$	SD	$X^2/Z/t$	p
<b>Positive Breastfeeding Sentiment</b>	<b>Education Status</b>					
	Primary school	45	234.11	59.20		
	Secondary School	48	236.29	51.64		
	High School	33	237.18	64.68	10.435	<b>0.015</b>
	University	26	272.96	43.75		
	<b>Family Type</b>					
	Nucleus family	133	244.21	55.64	1030.00	<b>0.193</b>
	Extended family	19	227.42	65.82		
	<b>Number of Pregnancies</b>					
	Multipara	82	248.17	56.75	1.422	<b>0.157</b>
Primipara	70	235.01	59.97			
<b>Age</b>					0.046*	
	r: 0.155					
<b>Negative Breastfeeding Sentiment</b>	<b>Education Status</b>				11.325	<b>0.010</b>
	Primary school	45	155.66	56.32		
	Secondary School	48	149.39	46.66		
	High School	33	120.30	53.52		
	University	26	155.66	56.32		
	<b>Family Type</b>					
	Nucleus family	133	140.42	52.59	984.00	<b>0.119</b>
	Extended family	19	153.21	48.10		
	<b>Number of Pregnancies</b>					
	Multipara	82	146.42	55.15	1.130	<b>0.260</b>
Primipara	70	136.85	48.09			
<b>Age</b>					0.213	
	r: 0.102					
<b>Social and Professional Support</b>	<b>Education Status</b>					
	Primary school	45	208.15	58.75		
	Secondary School	48	203.83	40.03	8.723	<b>0.033</b>
	High School	33	197.96	57.23		
	University	26	236.88	48.85		
	<b>Family Type</b>					
	Nucleus family	133	212.17	53.02	870.00	<b>0.028</b>
	Extended family	19	190.73	46.24		
	<b>Number of Pregnancies</b>					
	Multipara	82	213.20	56.66	0.942	<b>0.347</b>
Primipara	70	205.14	47.34			
<b>Age</b>					0.002**	
	r: 0.246					
<b>Breastfeeding Control</b>	<b>Education Status</b>					
	Primary school	45	41.02	6.30	9.412	<b>0.024</b>
	Secondary School	48	36.95	7.266		
	High School	33	38.60	6.40		
	University	26	38.42	6.38		
	<b>Family Type</b>					
	Nuclear family	133	38.81	6.97	1197.50	<b>0.712</b>
	Extended family	19	38.47	5.36		
	<b>Number of Pregnancies</b>					
	Multipar	82	41.84	5.42	6.915	<b>0.000</b>
Primipar	70	35.17	6.46			
<b>Age</b>					0.001**	
	r: 0.260					

\*p<0.05; \*\*p<0.01

#### 4. DISCUSSION

In our study it was determined that pregnant women had high PBS, SPS and BFC mean scores, while they had low NBS mean scores. In our study, almost all of the pregnant women intended to breastfeed their infants exclusively for six months and more than half of the women were planning to breastfeed for duration about 1 to 2 years. For our study can be said that the pregnant women were well motivated to breastfeed. According to TDHS (2013) breastfeeding rate on the first day is 70.2% but the rate for breastfeeding until 6 months is 30% [7]. Although common in Turkey breastfeeding exclusive breastfeeding rate is less than desired. In our study pregnant women visit hospital for prenatal examination self- motivated, it is thought that their health motivation and also breastfeeding motivation is high.

When evaluated these mean scores, it can be suggested that the mean scores of PBS, SPS and BFC are high whereas NBS scores are low in our study pregnant women. Similarly, other study results show that the mean scores of PBS, SPS and BFC are high whereas NBS scores are low [1,9,11,12,13]. It is thought that with breastfeeding trainings given to mothers, improving positive breastfeeding attitudes and breastfeeding control postnatally can be increased. In the line of our study results, improving positive breastfeeding attitudes and breastfeeding control prenatally can be a major step to achieve desired exclusive breastfeeding rates in Turkey.

A review of the relevant literature revealed the relative absence of a study particularly focusing on a comparison between the components of planned behavior and sociodemographic characteristics of mothers. Sociodemographic characteristics of a person may influence breastfeeding attitudes, support systems and control perceptions.

It was found in the study that SPS scores of pregnant women who were multiparous and had breastfeeding experience were higher. Our finding supports studies by other researchers [1,9,11,12,13,14]. The fact that breastfeeding experience of mothers in this study was high could be connected to their positive control perceptions on the subject of breastfeeding. In our study results show that primiparous women who have no previous experience have decreased breastfeeding control.

It was determined in the study that there was a significant relationship at a moderate level and in a positive direction between mother's age and PBS, SPS and BFC points. It is thought that as age increases, the number of children increases, mothers being experienced and their being more aware on the subject of breastfeeding could increase their control perceptions related to breastfeeding. Our finding supports studies by other researchers [1,9,11,12,13].

Other research results also show that regardless of maternal educational level and previous breastfeeding duration, mothers of positive breastfeeding attitude were likely to maintain exclusive breastfeeding longer [15,16,17,18]. It was found in our study that PBS, SPS and BFC scores of pregnant women who were "university" graduates were higher whereas NBS scores are low. Besides it was determined that scores of SPS of mothers who lived in a nuclear family were higher. It is thought that finding a positive attitude towards breastfeeding of the university graduate mothers in this study could stem from an increase in awareness levels on the subject of developing health and being able to reach more easily information resources related to breastfeeding and breast milk. It is crucial to specify the variables that determine the intention to breastfeed in perpetuating breastfeeding behaviors. Therefore assessing breastfeeding attitudes should be as part of routine prenatal care. Consequently it should be increased that women's perceptions in their ability to manage breastfeeding, breastfeeding control and positive breastfeeding attitudes [9].

#### 5. CONCLUSION

The results illustrated that with a university degree and from nuclear families and multipara and aged pregnant women had positive attitudes towards breastfeeding. It was also noted that multipara and aged pregnant women had higher control perceptions of breastfeeding.

If nurses should consider increasing positive breastfeeding attitudes and breastfeeding control prenatally. Pregnant women should be given successful breastfeeding education by nurses at health centers, community health centers, obstetric clinics at hospitals, and neonatal and pediatric units during routine controls, especially in the last trimester of pregnancy in order to ensure that babies are effectively and healthily breastfed, and to encourage breastfeeding.

## 6. LIMITATIONS

Our study has several limitations. During the study, data were collected via personal statements. The results of this study only belong to the region where it is carried out and cannot be generalized to Turkey. Finally, the cross-sectional and descriptive design of the study limits conclusions about causality for some findings.

## CONSENT AND ETHICAL APPROVAL

A written consent was obtained from all the women after explaining the purpose and method of the study, and guarantee was given for privacy of answers. After a questionnaire on sociodemographic characteristics was filled by the researcher using a face-to-face interview, it was expected that the questions on violence would be answered by the women themselves. Ethics Committee of the Celal Bayar University of Medical School approved the study protocol.

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## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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