

Breastfeeding self-efficacy, parenting behavior, and maternal role of mothers with planned and unplanned pregnancies

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Highlights: (1) Mothers with unplanned pregnancies have very low breastfeeding self-efficacy. (2) Mothers with unplanned pregnancies have inadequate parenting behaviors. (3) Mothers with unplanned pregnancies have very inadequate maternal roles.

Objective: to compare breastfeeding self-efficacy, parenting behaviors, and adaptation to the maternal role in mothers with planned and unplanned pregnancies during the early postpartum period.

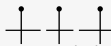
Method: a cross-sectional study was conducted with 414 mothers using a convenience sample at a postpartum clinic in a university hospital. Data collection was performed using a form containing sociodemographic and obstetric variables, the Postpartum Parenting Behavior Scale, the Myself as Mother Scale, and the Breastfeeding Self-Efficacy Scale - Short Form. **Results:** of the 414 mothers included in the study, 163 (39.4%) had unplanned pregnancies. Mothers with unplanned pregnancies had significantly lower breastfeeding self-efficacy, parenting behavior, and maternal role scores than those of mothers with planned pregnancies ($p < 0.001$). According to regression analysis, unplanned pregnancy is a risk factor that negatively affects mothers' breastfeeding self-efficacy, parenting behavior, and maternal role ($p < 0.001$). **Conclusion:** the self-efficacy in breastfeeding among mothers with unplanned pregnancies was quite low, and their parenting behaviors and maternal roles were quite inadequate. Nurses and midwives should support mothers with unplanned pregnancies in terms of breastfeeding their babies, both during pregnancy and in the early postpartum period, and in adapting to the role of motherhood and raising children.

Descriptors: Breastfeeding; Behavior; Mothers; Parenting; Self-Efficacy; Unplanned Pregnancy.

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year month day

Introduction

Unplanned pregnancy is defined as a pregnancy that is unintended, mistimed, or unwanted at conception, including those occurring earlier than desired or not desired at all⁽¹⁻²⁾. Globally, it remains a major public health concern; according to the 2022 United Nations Population Fund (UNFPA) report, approximately 121 million pregnancies occur unintentionally each year, accounting for 48% of all pregnancies worldwide⁽²⁾. Rates are higher in low- and middle-income countries, where limited access to reproductive health services, inadequate contraception use, and lack of education are key factors⁽³⁻⁴⁾.

Unplanned pregnancies have significant medical, social, and economic consequences⁽⁵⁻⁶⁾. In Türkiye, despite intervention efforts, prevalence remains high⁽⁷⁾, and is linked to poor prenatal care, miscarriage, low birth weight, neonatal death, and increased maternal and/or neonatal mortality⁽⁷⁻¹¹⁾. Psychological distress is also common, impairing mother–infant interaction, parenting behaviors, and maternal role attainment⁽¹²⁻¹³⁾.

Breastfeeding rates globally and in Turkey are affected by multiple factors, among which unplanned pregnancy is notable. Successful breastfeeding depends not only on physical health, but also on the mother's psychological well-being and self-efficacy breastfeeding, i.e., her belief in her ability to breastfeed effectively^(8,13). Negative emotions from an unplanned pregnancy can impair the emotional bond and breastfeeding practices, leading to early cessation⁽¹³⁻¹⁵⁾, although some studies report no significant association⁽¹⁶⁾.

Mothers who are emotionally prepared and sensitive to their infants' needs are more likely to establish a healthy bond^(7,15), whereas those with unplanned pregnancies may face greater adjustment challenges and postpartum crises^(15,17) and may experience lower quality mother–infant interaction⁽¹⁷⁻¹⁸⁾. The development of maternal identity begins during pregnancy and continues through the first months after child birth⁽¹⁹⁻²⁰⁾, and planned pregnancies are associated with a more successful adaptation to the role⁽²¹⁾. Untimed or unwanted pregnancies can delay this process⁽²²⁻²⁴⁾.

Despite existing evidence, studies on the effects of unplanned pregnancy on breastfeeding self-efficacy, parenting behaviors, and maternal role adaptation are limited and inconsistent. In Turkey, where the rate of unplanned pregnancy is 26%⁽²⁵⁾, further research is required. The postpartum period, marked by new responsibilities, may be especially challenging for these mothers. Understanding how pregnancy planning affects maternal outcomes is essential

for developing support programs and improving breastfeeding rates. Therefore, this study aims to compare breastfeeding self-efficacy, parenting behaviors, and adaptation to the maternal role in mothers with planned and unplanned pregnancies during the early postpartum period.

Method

Study design

This is a cross-sectional study.

Study setting

The study was conducted in the postpartum clinic of a public hospital in central Anatolia, Turkey. The hospital serves about 4,000 people per month. This hospital was selected based on its status as a public institution, the high volume of pregnant women from villages and towns who come to the maternity ward to give birth (approximately 1,000 per month), and its possession of a baby-friendly hospital certificate.

Study period

The study was conducted between September 2022 and February 2023.

Participants

Volunteer mothers who had recently given birth and were in the hospital's postpartum clinic were enrolled in the study and interviewed about their pregnancies and babies in their own rooms. Both mothers who conceived unplanned and those who conceived planned were included in the study. Unplanned pregnancy is defined as a pregnancy that occurs before the desired time or as an unwanted pregnancy. Planned conception is defined as a pregnancy that occurs at the desired time or a pregnancy that was desired before conception⁽⁶⁾.

Eligibility criteria

In this study, the inclusion criteria for mothers were 18 years of age or older, having at least completed primary school education, having given birth vaginally, and not having had a miscarriage, fetal loss, or stillbirth in previous pregnancies. The inclusion criteria for babies were being born at term (37-42 weeks), being singleton, weighing between 2,500 and 4,000 g, and having no congenital

anomalies. Women who wished to withdraw from the study after participating, who were discharged from the hospital before data collection was completed, or who developed an acute health problem in the early postpartum period were excluded from the study. Mothers under the age of 18 were not included in the sample for both ethical and legal reasons. In Turkey, individuals under the age of 18 are not considered legally competent under national law, and their participation in research requires additional legal permissions and ethical oversight, including parental or guardian consent. Additionally, adolescent mothers (under the age of 18) may have different developmental, psychosocial, and legal characteristics compared to adult mothers, which could create significant variability and potentially confound the study results, so they were excluded. Caesarean and instrumental deliveries were excluded as well as mothers with perinatal loss (e.g., stillbirth or neonatal death). Therefore, the study sample consisted of healthy mothers who had vaginal deliveries at term and actively participated in the postpartum maternal role, allowing for the examination of breastfeeding self-efficacy, parental behavior, and the maternal role under more homogeneous and comparable conditions.

Study universe, sample size, and sampling strategy

The study population included mothers who were hospitalized in the hospital's postpartum clinic and met the research criteria. The sample size was calculated with the G*Power-3.1.9.2 program, considering the difference of one unit, 90% power, a margin of error of 0.05, and effect size of 0.16, and it was determined that 414 mothers should be included⁽²⁶⁾. Mothers who met the inclusion criteria were included in the study using the convenience sampling method. The sample consisted of 414 mothers who met the inclusion criteria for convenience sampling.

Data collection

Data collection occurred between September 2022 and February 2023. Data was collected by the researchers through observation and face-to-face interviews using the mothers' form containing sociodemographic and obstetric variables, the Postpartum Parenting Behavior Scale (PPBS), the Myself as Mother Scale (MMS), and the Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF)⁽²⁷⁾. Completing the four instruments, which included a total of 44 questions, required an average of 15-20 min. During the completion of the forms, any

discomfort experienced by the mothers was addressed, appropriate midwifery care was provided, and their questions were answered. The interviews with the mothers were collected by interviewing them alone in their own rooms at the clinic. First, women who became pregnant unplanned and planned were identified through visits to the delivery rooms. After delivery, the mother and the baby were placed together to allow uninterrupted contact. Interviews were conducted within the first half hour after delivery. Their behaviors towards the baby were observed and the PPBS and MMS were recorded. The mother was allowed to breastfeed her baby, the BSES-SF scale was completed, and postnatal care was provided.

Data collection instruments

Form containing sociodemographic and obstetric variables

The form was developed by the researchers^(9,28). The form included 13 questions inquiring women's socio-demographic and obstetric characteristics and other independent data on the study. This form included questions about some socio-demographic characteristics of women and their husbands such as age, education level, employment status, years of marriage, family type, income level, data on pregnancy and delivery process (number of living children, experiencing health problems during pregnancy, knowledge about infant care) and infant characteristics (gender, birth weight and breastfeeding status).

Postpartum Parenting Behavior Scale (PPBS)

PPBS was developed to assess parents' behavior towards their infant during the first encounter with the baby after birth⁽²⁹⁾. The scale can only be applied to parents in the first minutes after birth. The validity and reliability of the scale in Turkish have been verified, and the Cronbach's alpha internal consistency coefficient value was found to be 0.97⁽³⁰⁾. The scale consists of six items and is evaluated in the form of binary score marking the items as present/absent. For observed behaviors, one (1) point was given and for those not observed, zero (0). The total score of the scale is the sum of the numbers obtained in each item. The minimum score is 0 and the maximum score is 6. A higher total score indicates that the parent has more positive parenting behaviors towards their baby. In this study, Cronbach's alpha internal consistency coefficient for the PPBS was 0.90.

Myself as Mother Scale (MMS)

The scale was developed in 1986, and its internal consistency reliability was found to be between 0.81 and 0.85⁽³¹⁾. The Turkish validity and reliability of the scale was conducted in 2003, and the Cronbach's alpha internal consistency coefficient was found to be 0.73⁽³²⁾. The eleven-item, seven-point semantic scale consists of 11 pairs of contrasting adjectives. These 11 items were distributed among the 22-item contrastive adjective pairs in the scale. There were three reverse-coded items. The third, seventh, and eighth items were evaluated on a score of "one" instead of "seven". High total scores on the scale indicate positive maternal self-evaluation. The lowest score is 11 points, and the highest score is 77 points. In this study, Cronbach's alpha internal consistency coefficient of the MMS was 0.88.

Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF)

BSES-SF was developed in 2003⁽³³⁾. Its validity and reliability in Turkish have been ascertained, and the Cronbach's alpha coefficient of the scale was 0.86⁽³⁴⁾. The scale has fourteen 5-point Likert-type items, all of which are positive. The scale ranges from 70 to 14. High scores indicate a high level of breastfeeding self-efficacy. In this study, Cronbach's alpha internal consistency coefficient for the BSES-SF was calculated as 0.89.

Research ethics

The local ethical board approved the study before it was conducted (Ethics permit #2022/877). After explaining the purpose and method of the study to the mothers, written informed consent was obtained from those who agreed to participate. Participants were also informed that they could withdraw from the study at any time without providing any reason, that their participation was entirely voluntary and that their identities would remain confidential. All procedures were carried out in accordance with the principles of the Helsinki Declaration. Participation in the study was voluntary, and no incentive was given to the participants.

Statistical analysis

Data was analyzed with the SPSS 20.0 (SPSS Inc., Chicago, IL, USA) package program. Since the skewness and kurtosis values of all scales were between -1.50 and +1.50 in the normality analysis, independent samples *t*-tests were performed among the parametric tests. Descriptive statistics such as frequencies, percentages, means, and standard deviations (SD) were used to summarize the sociodemographic and obstetric characteristics of the mothers. To compare the variables age, age of spouse, and years of marriage between mothers with planned and unplanned pregnancies, independent samples *t*-tests were performed. In addition, for categorical variables related to sociodemographic and obstetric characteristics, the Pearson chi-square test was used when the expected frequency was greater than 25, and the chi-square test with Yates' continuity correction was applied when the expected frequency was between 5 and 25. To compare the mean scores of breastfeeding self-efficacy, parenting behavior, and maternal role between mothers with planned and unplanned pregnancies, independent samples *t*-tests were also conducted. Multiple Linear Regression Analysis was used to evaluate the effects of unplanned pregnancy on breastfeeding self-efficacy, parenting behavior, and maternal role function. Significance level in statistical evaluation was taken as $p < 0.05$.

Results

Table 1 presents the comparison of mothers with planned and unplanned pregnancies in relation to sociodemographic and obstetric characteristics. Of the 414 mothers who participated in our study, 163 (39.4%) had unplanned pregnancy. The mothers had a mean age of 29.6 years (SD 5.6) and all were married. Mothers whose husbands did not work, who had low incomes, who had large families, who had three or more children, who had health problems during pregnancy, and who breastfed their babies late after delivery (after 60 minutes) had unplanned pregnancies ($p < 0.05$, Table 1).

Table 1 - Comparison of mothers with planned and unplanned pregnancies according to sociodemographic and obstetric variables. Turkey, 2022-2023

Variables	Mothers with planned pregnancies n* = 251	Mothers with unplanned pregnancies n* = 163	t [†]	p-value [§]
	Mean (SD) [†]	Mean (SD) [†]		
Age (years), Mean (SD) [†]	29.4 (5.2)	30 (6.2)	0.950	0.343
Age of spouse (years), Mean (SD) [†]	32.6 (5.6)	33.1 (6.3)	0.758	0.449
Years of marriage	6.8 (5.1)	7.8 (6.1)	1.788	0.075
	n* (%)	n* (%)	χ ² [¶]	p-value [§]
Education				
Primary	42 (51.9)	39 (48.1)	3.855	0.146
High School	107 (60.8)	69 (39.2)		
Bachelor's/Master's	102 (65)	55 (35)		
Employment status				
Full-time housewife	160 (62.3)	97(35.7)	0.753	0.385
Employed	91 (58)	66 (42)		
Spouse's working status				
Employed	240 (63.8)	136 (36.2)	17.592	< 0.001
Unemployed	11 (28.9)	27 (71.1)		
Perceived income level				
Good	86 (69.4)	38 (30.6)	18.675**	< 0.001
Moderate	157 (62.1)	96 (37.9)		
Poor ^{††}	8 (21.6)	29 (78.4)		
Family type				
Nucleus	210 (66.9)	104 (33.1)	21.280	< 0.001
Extended	41 (41)	59 (59)		
Number of living children				
1	124 (66.7)	62 (33.3)	12.851	0.002
2	99 (61.5)	62 (38.5)		
3 or more ^{††}	28 (41.8)	39 (58.2)		
Experiencing health problems during pregnancy				
Yes	60 (49.2)	62 (50.8)	9.496	0.002
No	191 (65.4)	101 (34.6)		
Receiving information on infant care				
Yes	174 (61.7)	108 (38.3)	0.427	0.513
No	77 (58.3)	55 (41.7)		
Infant's sex				
Female	132 (65.3)	70 (34.7)	3.679	0.055
Male	119 (56.1)	93 (43.9)		
Infant birth weight (g)				
2,500-2,999	51 (51.5)	48 (48.5)	5.296	0.071
3,000-3,499	155 (64.9)	84 (35.1)		
3,500-4,000	45 (59.2)	31 (40.8)		
Breastfeeding status of the baby after birth				
Breastfed the baby within the first 60 min	202 (65.2)	108 (34.8)	10.624	0.001
Breastfed the baby after 60 min or later	49 (47.1)	55 (52.9)		

*n = Number of samples; †SD = Standard Deviation; †t = Independent sample t-test; §p-value = Significance probability; ||% = Percentage; ¶χ² = Pearson Chi-square test; **Chi-square test with Yates correction, SD: 1 (5<observed value< 25); ††The group from which the difference originated

The comparison of mothers with planned and unplanned pregnancies according to the mean scores of breastfeeding self-efficacy, parenting behavior, and maternal role is shown in Table 2. It was observed

that mothers with unplanned pregnancies had lower breastfeeding self-efficacy, parenting behavior, and maternal role than mothers with planned pregnancies ($p < 0.001$, Table 2).

Table 2 - Comparison of mean scores for breastfeeding self-efficacy, parenting behavior, and mothering role among mothers with planned and unplanned pregnancies. Turkey, 2022-2023

Measure	Mothers with planned pregnancies n* = 251	Mothers with unplanned pregnancies n* = 163	t [‡]	p-value [§]
	Mean (SD) [†]	Mean (SD) [†]		
BSES-SF	55.1 (9)	50.6 (10)	-4.558	<0.001
PPBS [¶]	5.5 (0.8)	4.9 (1.2)	-5.168	<0.001
MMS ^{**}	86.5 (9)	76.8 (11.4)	-9.132	<0.001

*n = Number of samples; SD = Standard Deviation; ‡ = Independent sample t test; §p-value = Significance probability; ||BSES-SF = Breastfeeding Self-Efficacy Scale-Short Form; ¶PPBS = Postpartum Parenting Behavior Scale; **MMS = Myself as Mother Scale

The multiple linear regression analysis according to the unplanned pregnancy factor that negatively affects breastfeeding self-efficacy, parental behavior, and maternal role is shown in Table 3. The regression model for the risk factor of unplanned pregnancy that may affect breastfeeding self-efficacy was significant ($F=21.681$, $p < 0.001$) and explained 4.8% of the variance. The regression model for risk factor of unplanned pregnancy that may affect maternal parenting behavior

was significant ($F=31.355$, $p < 0.001$) and explained 6.9% of the variance. The regression model for the risk factor of unplanned pregnancy that may affect the maternal role was significant ($F=92.165$, $p < 0.001$) and explained 18% of the variance (Table 3). In light of the results of our regression analysis, unplanned pregnancy was considered a risk factor that negatively affected breastfeeding self-efficacy, parenting behavior, and maternal role ($p < 0.001$, Table 3).

Table 3 - Multiple linear regression analysis for the factor of unplanned pregnancy that negatively affects breastfeeding self-efficacy, parenting behavior, and maternal role. Turkey, 2022-2023

BSES-SF*							
Variable	B [†]	SE [‡]	$\beta^§$	t	p [¶]	95% CI ^{**}	
						Low Value	High Value
Unplanned pregnancy	4.439	0.953	0.224	4.656	< 0.001	2.565	6.313
n ^{††} = 414; R ^{2††} = 0.050; Adjusted R ² = 0.048, Durbin-Watson=1.357							
PPBS ^{§§}							
Variable	B [†]	SE [‡]	$\beta^§$	t	p [¶]	95% CI ^{**}	
						Low Value	High Value
Unplanned pregnancy	0.572	0.102	0.267	5.627	< 0.001	0.372	0.772
n ^{††} = 414; R ^{2††} = 0.071; Adjusted R ² = 0.069, Durbin-Watson=1.720							
MMS							
Variable	B [†]	SE [‡]	$\beta^§$	t	p [¶]	95% CI ^{**}	
						Low Value	High Value
Unplanned pregnancy	9.737	1.014	0.428	9.600	<0.001	7.743	
n ^{††} = 414; R ^{2††} = 0.183; Adjusted R ² = 0.181, Durbin-Watson=1.878							

*BSES-SF = Breastfeeding Self-Efficacy Scale-Short Form; †B = The value that shows how much the dependent variable will change when the independent variable increases by 1 unit; ‡SE = Standard Error; § β = Regression Coefficient; ||t = Independent Sample t Test; ¶p-value = Significance probability; **CI = Confidence Interval; ††n = number of samples; ††R² = Coefficient of Determination; §§PPBS = Postpartum Parenting Behavior Scale; ||||MMS = Myself as Mother Scale

Discussion

We found out in this study that 39.4% of mothers had an unplanned pregnancy. The prevalence of unplanned pregnancies shows notable regional differences in some studies conducted worldwide. Among 5,110 women included in research in Brazil, 68.1% reported having experienced unplanned pregnancies, while in Ethiopia, 31% of 3,894 pregnant women reported having had unplanned pregnancies⁽³⁵⁻³⁶⁾. In Turkey, according to the Turkish Demographic and Health Survey (TDHS) data, the rate of unintended pregnancies has been reported as 26%⁽⁶⁾. In this study, the slightly higher prevalence of unplanned pregnancies, compared to the TDHS results, may be attributed to regional and sociocultural differences. Furthermore, it was found that women whose husbands were unemployed, those with poor perceived income status, those living in extended families, and those with three or more children had higher rates of unplanned pregnancies. In a study conducted in India investigating the determinants of unintended pregnancies, the prevalence was reported as 11.1% among the poorest households and 7% among wealthy households, 14% among mothers with three or more children and 3.8% among mothers with only one child, and 10.4% in households with more than eight members in the nuclear family, indicating relatively high rates⁽³⁷⁾. The results of these studies conducted in different countries indicate that the demographic characteristics of women having unplanned pregnancies are quite similar.

In the present study, mothers with unplanned pregnancy had significantly lower breastfeeding self-efficacy than those with planned pregnancies. In addition, according to our regression analysis, having an unplanned pregnancy was a negative risk factor affecting mothers' breastfeeding self-efficacy. It was reported that mothers who had an unplanned pregnancy and did not breastfeed within the first hour weaned their babies earlier⁽¹⁴⁾. Moreover, women with unplanned pregnancies had problems in breastfeeding their babies after birth⁽¹⁴⁻¹⁶⁾. It has been reported that mothers with unplanned pregnancies started breastfeeding their babies later than mothers with planned pregnancies and their breastfeeding duration was shorter⁽¹⁵⁻¹⁶⁾. Considering the benefits of breast milk for both the mother and the infant, motivational interviewing has been reported to have a significantly positive effect on increasing self-efficacy and maintaining breastfeeding⁽³⁸⁾.

According to the results of the regression analysis, it was concluded that the parenting behaviors of mothers with unplanned pregnancies were negatively affected, and their parenting behaviors were poor. Moreover, in this study, it

was observed that in women with unplanned pregnancies, compared to women with planned pregnancies: their husbands were unemployed, they had poor income, had an extended family (three or more children), had health problems during pregnancy, and breastfed their babies late after birth. In similar studies, it has been reported that the interaction between women who conceive without planning and their infants is less satisfactory than that of women who conceive with planning, and that educational level, perceived family income, number of pregnancies, and methods that strengthen family-infant bonds affect mother-infant interaction^(13,15,24). Another study reported that the planning status of pregnancy affected the parenting behavior score, and women who planned their pregnancies had high parenting behavior scores, i.e., they showed positive parenting behaviors towards their babies⁽²⁷⁾. Another study showed that unplanned pregnancy was associated with an increased risk of poor parent-child relationship outcomes⁽³⁹⁾.

In this study, the maternal role of mothers with unplanned pregnancies was found to be significantly lower than that of mothers with planned pregnancies and unplanned pregnancies status was found to be a negative risk factor for women's maternal role. Women experiencing unplanned pregnancy are exposed to problems such as increased mental and emotional conditions during pregnancy and after birth, jeopardizing positive mother-infant interaction and maternal role acquisition^(8,12,24). Training programs on the role of motherhood may be useful for mothers with unplanned pregnancy or mothers who reject the maternal role. Training mothers to care for themselves and their babies has been reported to reduce mothers' anxiety and increase their sense of competence⁽⁴⁰⁾.

Based on the results obtained from this study, it is recommended that midwives and nurses provide necessary counseling to women and their partners on planned pregnancies to help them have children at the desired time and number they can care for. It is important that midwives and nurses identify women with unintended pregnancies at the earliest stage, find out their needs, and particularly support the adaptation to parenthood and breastfeeding self-efficacy of these women. Additionally, it is recommended that midwives and nurses dedicate more time and provide support to women whose husbands are unemployed, those with low perceived income levels, those with a high number of children, those who have experienced health problems during pregnancy, and those who are late to initiate breastfeeding or are reluctant to breastfeed. Moreover, midwives should design educational interventions aimed at developing cognitive skills, problem-solving, and self-efficacy training to help

mothers with unplanned pregnancies acquire the skills needed to overcome challenges related to breastfeeding, parenting behavior, and maternal role.

This study reached a large population of mothers in the early postpartum period and noticed the prevalence of unintended pregnancies. Moreover, by identifying the differences between the characteristics of women with planned and unplanned pregnancies, it stands, to the best of our knowledge, as the first study in Turkey to assess the parenting behavior, maternal role, and breastfeeding self-efficacy exhibited by these mothers during their initial encounter with their newborn babies.

Since the participants were recruited from only one hospital, the results cannot be generalized to the whole country; however, since the hospital is one of the largest hospitals in the province where it is located, and many pregnant women and mothers from neighboring provinces and districts visit the maternity clinic, our results can be generalized to the province level. Additionally, the high number of women coming from neighboring villages and towns to the hospital for childbirth may have influenced the results through sociodemographic characteristics such as race/ethnicity and socioeconomic status. Furthermore, since the women were informed about the study and asked whether they wished to participate during the early postpartum period in the hospital setting, this circumstance may have positively influenced the behaviors they exhibited toward their babies.

Conclusion

In this study, 39.4% of mothers had unplanned pregnancies. It was found that mothers with unplanned pregnancies had significantly lower breastfeeding self-efficacy, parenting behavior, and maternal role than mothers with planned pregnancies. According to the regression analysis, unplanned pregnancy is a risk factor that negatively affects mothers' breastfeeding self-efficacy, parenting behavior, and maternal role. It is important that midwives and nurses identify women with unintended pregnancies at the earliest stage, find out their needs, and especially support the breastfeeding self-efficacy, adaptation to the parenting and maternal role of women who became pregnant unintentionally.

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Study concept and design: Seyhan Çankaya, Bihter Akın, Yasemin Erkal Aksoy. **Obtaining data:** Seyhan Çankaya. **Data analysis and interpretation:** Seyhan Çankaya, Yasemin Erkal Aksoy. **Statistical analysis:** Seyhan Çankaya, Bihter Akın, Yasemin Erkal Aksoy. **Drafting the manuscript:** Seyhan Çankaya, Bihter Akın. **Critical review of the manuscript as to its relevant intellectual content:** Seyhan Çankaya, Bihter Akın, Yasemin Erkal Aksoy.

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Datasets related to this article will be available upon request to the corresponding author.

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