

Anxiety and Depression's Effect on Breastfeeding Self-Efficacy Perception and Breastfeeding Attitude of Pregnant Women

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Introduction and Objective: Self-efficacy perception is one of the factors that affect breastfeeding attitude and breastfeeding success. Breastfeeding self-efficacy perception is associated with some psychological problems. Especially, the anxiety and depression women get through during pregnancy can affect postpartum breastfeeding attitude negatively. In this context, research has been conducted to determine anxiety and depression's effect on breastfeeding self-efficacy perception and breastfeeding attitude of pregnant women.

Materials and Methods: In this descriptive study, sample selection was not made to be able to reach out entire universe. The sample consisted of 400 healthy pregnant women presented to Cumhuriyet University Health Services Research Hospital pregnancy clinic between 1 January 2015 and 15 February 2015. Data were collected by using Introductory Information Form, Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), Antenatal Breastfeeding Self-Efficacy Scale-Short Form and Breastfeeding Attitude Scale. In the evaluation process of the data, average, standard deviation, percentage and variance analysis, significance test for the difference between the two averages, Chi-square test and Pearson correlation analysis were used. Statistical significance was determined as $p < 0.05$.

Results: The average age of pregnant women is 27 ± 5.57 . 23.2% of pregnant women are high school graduates, 17.8% of them are working, 65.2% of them live in the city center, 81.5% of them have a planned pregnancy, 50.0% of them are in the third trimester of pregnancy and 31.8% of them are having their first pregnancy. 98.8% of pregnant women are planning to breastfeed their babies, 76.2% of them are planning to feed their babies with only breastmilk for the first six months and 82.8% of them are planning to breastfeed their babies until they are 2 years old. 35.0% of pregnant women get information about breastfeeding, 27.8% of them reported that they received this information from a midwife. 99.2% of pregnant women think that breastfeeding is beneficial for the baby, 94.5% of them think it is beneficial for themselves, 45.8% of them stated that they intend to use pacifiers, 49.5% of them stated that they intend to use the bottle. BAI average of pregnant women is 11.15 ± 7.86 , BDI average of them is 9.18 ± 5.90 , breastfeeding self-efficacy scale average of them is 59.84 ± 8.26 and breastfeeding attitude scale average score is 115.62 ± 12.22 .

Conclusion: It is thought that determining anxiety and depression's effect on breastfeeding self-efficacy perception and breastfeeding attitude of pregnant women will contribute to mother-infant health.

Keywords: Pregnancy, anxiety and depression, breastfeeding self-efficacy perception, breastfeeding attitude

INTRODUCTION

Although pregnancy and birth are seen as physiological events in a woman's life time, it is a period of life that requires serious biopsychosocial adaptation for the family and pregnant woman. This can be seen as a crisis period in woman's life that requires adaptation to changes and new roles (Taşpınar, 2008). Physiological changes in pregnant women have been suggested as causes of rapid hormonal changes, emergence of mood and other psychiatric syndromes (Kısa & Yıldırım, 2004). Reactions of pregnant women in this period can be happiness, disgust, anger, anxiety, fear and depression (Read, 1999).

Physiological, psychological changes and complications can lead maternal anxiety in pregnant women. Misfortunes that may occur at birth increases the anxiety in almost all women at the prospect of losing their baby (Akdeniz & Gönül, 2004).

Pregnancy and post-mood disorders affect many pregnant women and encountered as common obstetric complications. Pregnancy period is a high risk period for onset of depression in women. Almost no life events can be compared with neuroendocrine and psychosocial changes caused by pregnancy and childbirth (Burt & Hendrick, 2005; Llewellyn et al., 1997). It is the period women are most sensitive spiritually and therefore is the period of risk of psychiatric illness increase (Altınay et al., 2002; Gülpek et al., 2005).

Despite all programs that support breastfeeding in our country and in the world, additional nutrients are given to baby along with breast milk within the first 6 months. This is a major public health issue waiting to be resolved which could affect infant health and breastfeeding (Curley, 2015). There can be different reasons of giving the baby different additional nutrients other than breast milk in the first 6 months (Lauwers & Swisher, 2011).

Another factor that affects breastfeeding is self-efficacy perception of the mother. Breastfeeding self-efficacy perception is mother's efficiency feeling concerning breastfeeding. Self-efficacy of mother about breastfeeding may be associated with difficulties experienced previously. Mother's self-efficacy perception of breastfeeding shows that whether the mother will breastfeed, how much she will strive for it, her thoughts about breastfeeding and her handling way with challenges that will be faced (Dennis, 1999).

In our country, although breastfeeding is a common behavior, rates of breastfeeding only with breast milk for the first six months are low (TNSA, 2003; TNSA, 2008). While the rate of infants fed only with breast milk for the first six months is 41.6%, rate of infants fed with nutrient other than breast milk is 23.2% (Llewellyn et al., 1997). The rate of feeding with only breast milk in 4-6 months in Turkey is 62.5% (TBSA, 2010). According to TNSA 2013 data, giving only breast milk for the first 6 months rates have dropped from 40.4% to 30.1% (TNSA, 2013).

By the determination of attitudes affecting women's breastfeeding, women's willingness for breastfeeding, early initiation, continuation and abandoning of breastfeeding will be determined in advance. In primary health care institutions or in hospitals, midwives and nurses carry out follow-up and training of healthy pregnant women. Supporting mothers in the direction of breastfeeding will increase mothers' knowledge about breastfeeding and their breastfeeding behaviours will change with it (Shaker et al., 2004). In this context, research has been conducted to determine anxiety and depression's effect on breastfeeding self-efficacy perception and breastfeeding attitude of pregnant women.

MATERIAL AND METHOD

The research was conducted as a descriptive study in Sivas State Hospital's pregnancy clinics. The population of the study consists of pregnant women presented to Cumhuriyet University Health Services Research and Application Hospital pregnancy clinics between 1 January 2015 and 15 February 2015. Literate pregnant women, the ones who do not have communication and perception defects and healthy pregnant women agreed to participate in the study were included. Sample selection was not made and all the universe was tried to be achieved. A total of 400 pregnant women meeting the criteria for the research and who agreed to participate were included in the study. Written consent was taken from participants. Research data were collected using questionnaires developed in line with the literature through face-to-face interview method. For the implementation of the study, Ethics Committee approval was taken from Cumhuriyet University Non-Invasive Clinical Research Ethics Committee. Data were collected by using Introductory Information Form, Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), Antenatal Breastfeeding Self-Efficacy Scale-Short Form and Breastfeeding Attitude Scale.

"Pregnant Introductory Information Form": In the form prepared regarding similar study, there are 30 questions concerning sociodemographic characteristics of pregnant women (age, education, job-occupational status, income

status) and characteristics of breastfeeding (considering breastfeeding, getting information, using a pacifier or a bottle) (Yurtsal, 2014).

Beck Anxiety Inventory (BAI):

This inventory was developed by Beck in 1988 and is a 21-item self-rating scale. It was translated to Turkish by Ulusoy et al. in 1989. In BAI's items, anxiety's subjective, somatic, and panic-related symptoms are described. Each item includes 4 options graded from 0 to 3. In the total 21 items, scores between 0-63 can be obtained and increasing total score indicates that anxiety symptoms increase, too (Ulusoy et al., 1998).

Beck Depression Inventory (BDI):

This inventory was developed by Aaron T. Beck in 1961 for the first time and revised in 1971. Translated to Turkish by Hisli in 1989 and its validity and reliability were demonstrated. BDI is a 21-item self-rating scale and measures characteristic approaches and depressive symptoms. Each item includes 4 options graded from 0 to 3. In the total 21 items, scores between 0-63 can be obtained and increasing total score indicates that depressive symptoms increase, too. Cutoff score is accepted as 17 for Turkish society (Beck et al., 1961).

"Antenatal Breastfeeding Self-Efficacy Scale-Short Form":

Antenatal Breastfeeding Self-Efficacy Scale-Short Form consists of 14 items that evaluate breastfeeding self-efficacy. The scale is 5-point likert-type scale and evaluated as 1=Not sure at all, 5=I'm always sure. The minimum score that can be taken from the scale is 14 and the maximum score is 70. The higher the score means the higher breastfeeding self-efficacy. Dennis asserts that this scale is appropriate for the implementation in the postnatal period. But "future tense" use in scale items makes it possible to use in pregnancy period. In line with suggestions of Cindy Lee Dennis about the scale's applicability in antenatal period, scale's items were changed using future tense expressions and by conducting reliability and validity studies, scale's antenatal type has been created. For example, "I believe that I can breastfeed my baby all the time". Antenatal Breastfeeding Self-Efficacy Scale-Short Form is adapted to Turkish by Tokat (2009). Antenatal Breastfeeding Self-Efficacy Scale-Short Form is stated to be valid and reliable measuring devices for Turkish culture (Tokat, 2009).

"Breastfeeding Attitude Scale":

Developed by Arslan and consisting of 93 items, scale's validity/reliability study was conducted by applying 286 new mothers. Alpha value of the scale was found to be 0.66 in 47-item section and 0.63 in 46-item section. Content and face validity of the scale were measured through the evaluation of the scale by experts and construct validity was measured by applying varimax rotation by factor analysis method. After item analysis was done, the ones under 0.50 correlation coefficient were removed from the scale. According to results of this study, scale consists of 46 items. Answers in the scale are 5 Likert-type that consist of expressions between totally agree-not agree at all. The highest score is 184 and high score indicates positive breastfeeding attitude (Arslan, 1999). Application of data collection tools lasts 20 minutes.

In the evaluation process of the data, average, standard deviation, percentage and variance analysis, significance test for the difference between the two averages, Chi-square test and Pearson correlation analysis were used. Statistical significance was determined as $p < 0.05$.

FINDINGS

The average age of pregnant women in the study is 27 ± 5.57 . 23.2% of them are high school graduates, 17.8% of them are working, 65.2% of them are living in the city center. Some sociodemographic characteristics of pregnant women are shown in Table 1.

Table 1. The Distribution of Some Sociodemographic Characteristics of Pregnant Women (n=400)

Characteristics	Number	%
Educational Status		
Primary school	108	27.0
Secondary school	105	26.2
High school	93	23.2
University	94	23.5
Job Status		
Working	71	17.8
Not working	329	82.2
Health Insurance		
Available	373	93.2
Not available	27	6.8
Income Status		
999 TL and less	74	18.5
1000-1999 TL	157	39.2
2000-2099 TL	72	18.0
3000 TL and more	97	24.2
Residence		
Village	62	15.6
County	77	19.2
Province	261	65.2
Total	400	100.0

81.5% of pregnant women have a planned pregnancy, 50.0% of them are in the third trimester of pregnancy, 31.8% of them have their first pregnancy. Some characteristics of pregnant women regarding pregnancy and controls are shown in Table 2.

Table 1. The Distribution of Characteristics of Pregnant Women Regarding Pregnancy and Controls (n=400)

Characteristics	Number	%
Planned Pregnancy		
Yes	326	81.5
No	74	18.5
Number of Pregnancies		
1	127	31.8
2	122	30.5
3	86	21.5
4 and more	65	16.2
Pregnancy Trimester		
1	75	18.8
2	125	31.2
3	200	50.0
Number of Health Check in Pregnancy		
10 and less	277	69.2
11 and more	123	30.8
The Place Where Controls Are Done		
State Hospital	400	100.0
Private Hospital	0	0.0

Having Health Problem in Pregnancy		
Yes	161	40.2
No	239	59.8
Total	400	100.0

While 98.8% of pregnant women consider breastfeeding, 76.2% of them consider feeding with only breast milk for the first six months and 82.8% of them consider breastfeeding until their infants are 2 years old. 35.0% of pregnant women get information about breast milk and 27.8% of those who get information obtain them from midwives. While 99.2% of pregnant women consider breastfeeding beneficial for the baby, 94.5% of them consider it is beneficial for the mother. 45.8% of them pacifier, 49.5% of them consider using feeding bottle. Opinions of pregnant women about breastfeeding and breast milk are given in Table 3.

Table 3. The Distribution of Characteristics of Pregnant Women Regarding Breast Milk and Breastfeeding (n=400)

Characteristics	Number	%
Considering Breastfeeding		
Yes	395	98.8
No	5	1.2
Feeding Time With Only Breast Milk/Month		
5 months and less	44	11.0
6 months	305	76.2
7 months and more	51	12.8
Total Breastfeeding Time/Age		
1.5 ages and less	69	17.2
2 ages and more	331	82.8
Getting Information About Breast Milk		
Yes	140	35.0
No	260	65.0
From Whom The Information Get (n: 140)		
Midwife	111	79.3
Nurse	29	20.7
Benefits of Breastfeeding for Mother		
Yes	378	94.5
No	22	5.5
Benefits of Breastfeeding for Baby		
Yes	397	99.2
No	3	0.8
Using Bottle		
Yes	198	49.5
No	202	50.5
Using Pacifier		
Yes	183	45.8
No	217	54.2
Total	400	100.0

BAI average of pregnant women is 11.15 ± 7.86 , BDI average is 9.18 ± 5.90 , breastfeeding self-efficacy scale average is 59.84 ± 8.26 and breastfeeding attitude scale point average is 115.62 ± 12.22 . A statistically significant positive correlation was detected between depression and anxiety ($r: 0.419$; $p=0.00$). Negative statistically significant correlation was found between depression and breastfeeding self-efficacy, breastfeeding attitude ($r: -0.100$; $p=0.045$); ($r: -0.180$; $p=0.00$). As a result, depression and anxiety have positive statistically significant correlation but depression and breastfeeding self-efficacy, attitude have negative statistically significant correlation Anxiety or depression in

pregnant women has been revealed not to affect breastfeeding self-efficacy and attitudes negatively.

DISCUSSION

For the successful initiation and continuation of breastfeeding, supporting women especially by health care professionals and increasing their motivation in prenatal, birth and postpartum processes are highly important (Betzold *et al.*, 2007). In the present study 98.8% of women participated wish to breastfeed their babies. Yurtsal (2014) stated in her study that all pregnant women wish to breastfeed. When the research result is compared to literature, it can be clearly seen that pregnant women wish to breastfeed in postpartum period. According to TNSA 2013 data, percentage of children started to be breastfed and breastfed for a while is 96.0%. Pregnant women are clearly seen that they are ready to breastfeed. In this case, it can be said that breastfeeding rates can be increased by providing sufficient professional support.

It is recommended to feed babies with only breast milk for the first six months and as from sixth month proper additional nutrients are recommended along with breast milk until 2 years old (WHO, 2010). In our study, that 76.2% of pregnant women stated that the duration of feeding only with breast milk is the first 6 months is noteworthy. The vast majority of pregnant women seem to know the duration of breastfeeding. This result is believed to be originated from health workers who informed pregnant women as breast milk should be given only for the first 6 months. Furthermore, that 82.8% of pregnant women stated the total duration of breastfeeding is 2 years and more is another striking finding. The importance of informing pregnant women in this issue is clearly seen. Pregnant women knowing these durations correctly is expected to make a positive contribution to increase the rate of feeding only breast milk for the first 6 months and total breastfeeding duration.

It is clearly stated that when the mother gets positive prenatal information about breastfeeding tendency to breastfeeding increases (Léger-Leblanc & Rioux, 2008; Semenic *et al.*, 2008). When getting information about breast milk and breastfeeding during pregnancy is examined, it was found that only 35.0% of women get information. In the study of Işık Koç & Tezcan's, 39.9% of women were found to get information about breastfeeding during pregnancy (Işık Koç & Tezcan, 2005). In our study, it is observed that the rate of ones who received information about breastfeeding during pregnancy is similarly low with other studies' results. This similarly low rates are thought-provoking and alarming.

More active health professionals in breastfeeding, with education and motivation they give to mothers and families, they will provide better breastfeeding experience (McInnes & Chambers, 2008). The routine care given by physicians working in primary care, home visits by nurses and midwives are indicated to increase breastfeeding initiation rates (Brodribb *et al.*, 2007; Karp *et al.*, 2013). When pregnant women are examined about from whom they get information about breast milk and breastfeeding, 79.3% of them from midwives, 20.7% of them were found to get

information from nurses. That none of the pregnant women who participated in the study did not get information from physicians is seen as a very remarkable finding. In our country, antenatal care services are provided at Family Health Centers. This striking result is believed to be caused by midwives who are primarily responsible for the provision of antenatal care services at family health centers.

When compared to babies who are not bottlefed, in babies who are fed with bottle, it is seen that nipple confusion arises, rate of giving only breast milk for the first six months decreases and breastfeeding duration shortens (Reeder, 2013). Yurtsal has found in her study that the pregnant women in the intervention group in prenatal period do not think about using bottle and 97.4% of them in the control group are planning on using (Yurtsal, 2014). In our study, 49.5% of pregnant women are planning on using a bottle during the postpartum period. Compared with the literature, low rate of bottle using in our study is a happy progress.

In the literature the use of a pacifier also has a negative impact on the duration of breastfeeding and breast milk intake (Jaafar, 2012). Use of a pacifier causes a decrease in milk production by weakening the power of sucking and for this reason lead to discontinuation of breastfeeding and reduce the duration of infants' breast milk intake (Bakiler *et al.*, 2005). Bakiler *et al.* also reports that the use of a pacifier creates nipple confusion and has a significant negative effect on the continuity of feeding with breast milk (Bakiler *et al.*, 2005). Yurtsal found in her study that all the women in the intervention group do not planning on using pacifier during antenatal period, 97.4% of those in the control group are planning on using (Yurtsal, 2014). In our study, 45.8% of pregnant women has been found to consider using pacifier. When compared with the literature, it is noteworthy that the rate of pacifier use is lower in our study.

In our study, negative statistically significant correlation was found between depression and breastfeeding self-efficacy, breastfeeding attitude. As a result, anxiety and depression scores were found to be low in pregnant women, they were found not to affect breastfeeding self-efficacy and attitudes negatively. In our research process, study that investigates the effect of anxiety and depression in pregnant women on breastfeeding self-efficacy and breastfeeding attitudes was not encountered in the literature. Antenatal depression is reported to be linked with postnatal depression and negative breastfeeding experience (Abou Nazel & Nosseir, 1994). Also, prenatal depression symptoms were found not to affect initiation of breastfeeding (Jennifer *et al.*, 2006). Studies differ by our study due to their inclusion of postpartum period. In our study, low levels of anxiety and depression during pregnancy were stated not to affect breastfeeding self-efficacy and attitude negatively.

RESULTS

BAI average of pregnant women is 11.15 ± 7.86 , BDI average is 9.18 ± 5.90 , breastfeeding self-efficacy scale average is 59.84 ± 8.26 and breastfeeding attitude scale point average is 115.62 ± 12.22 . Negative statistically significant correlation was found between depression and breastfeeding self-efficacy, breastfeeding attitude. As a result, anxiety and depression points of pregnant women were found to be low

and they were found not to affect breastfeeding self-efficacy and attitudes negatively. It is thought that determining anxiety and depression's effect on breastfeeding self-efficacy perception and breastfeeding attitude of pregnant women will contribute to mother-infant health.

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