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Investigation of Fear of Childbirth, Attitude and State Anxiety among Primigravid Women

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ABSTRACT This paper was done as a descriptive to determine the fear and anxiety of 509 primigravid women related to birth. The data was collected from government hospital in Gaziantep. A Survey Form, Birth Attitude Scale and Spielberger State Anxiety Inventory were used as the data collection tools. The average total score they received from birth attitudes scale was found to be 39.90±11.36. When pregnant women's status of fear was examined according to the fear birth attitude scale, majority of pregnant women had fear about birth due to the possibility of injury to their infant during birth, many of them stated fear about having painful contractions and had fear about delivery. The mean anxiety score was 43.89±8.04, majority of the pregnant women had high state anxiety. It was found that the majority of pregnant women suffer from a high state anxiety and there was a relationship between state anxiety and fear of birth.

INTRODUCTION

Pregnancy is a period in life where there are physical and psychological changes, with a high risk of exposure to factors which cause anxiety, stress and morbidity and mortality for both mother and baby (Dönmez et al. 2014; Takegata et al. 2014; Ibrahim et al. 2014; Gert et al. 2016; Koss et al. 2016). This period can also create a crisis that requires compliance difficulties to adapt to new roles (Gözüyesil et al. 2008). These concerns and compliance issues encountered related to pregnancy and childbirth when combined with such a negative attitude to create a heavy burden on pregnant women and family. In the literature, it was determined that one in five women suffer from moderate fear of birth and after the 28th week of pregnancy, the fear of childbirth increase the state and trait anxiety (Poikkeus et al. 2006; Alipour et al. 2011; Hildingsson 2014; Gao et al. 2015; Hamama-Raz et al. 2016). The factors affecting the state anxiety in pregnancy included pain during childbirth, negative thoughts about babies and their health, infant care concerns (Hall et al. 2009; Arslan et al. 2011), economic status, family relationships, mandatory cesarean delivery, death, episiotomy, feeling helpless at birth, mistrusting staff about birth, the idea of losing control at birth, attitudes and beliefs about birth, such as staying alone at birth (Sahin et al. 2009; Duran and Atan 2011; Haines et al. 2012; Lukasse et al. 2014; Raisanen et al. 2014; Gao et al. 2015). In the literature, it is reported that primigravid women experience more anxiety and fear of birth than multigravid women (Rouhe et al. 2009; Tekgöz et al. 2009).

Some levels of fear and anxiety about childbirth are expected especially for primigravid women. However, problems arise when these feelings negatively impact pregnant woman's decisions and attitudes about childbirth. In the literature it is indicated that anxiety in the prenatal period increases postnatal depression which adversely affects maternal and child health during pregnancy, at birth and postnatal period (Fairbrother and Woody 2007; Skouteris et al. 2009; Coelho et al. 2011; Alipour et al. 2012; Gosselin

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et al. 2016). Fear and attitudes related to pregnancy and childbirth are seen as the most important reason for the increase in the rate of cesarean section which is considered to be a serious problem in terms of burden to the national economy and mother and baby's health in developed and developing countries (Sahin et al. 2009; Nieminen et al. 2009; Gourounti et al. 2015). Besides, they are among the risk factors which would increase the risk of severe affective disorders in the postpartum period (Haines et al. 2012; Salomonsson et al. 2013; Lobel et al. 2008; Maliszewska et al. 2016). Therefore, determination of women's attitudes and beliefs about childbirth and fulfilling their needs have become a major focus of the policies related to international maternal health during pregnancy. Healthcare professionals are not competent enough in the assessment of the women's fear and anxiety about birth and may ignore the pregnant women's fear because they think that the infant's and mother's health-related problems during pregnancy and birth are of priority (Plested and Kirkham 2016).

However, it is thought that determination of women's attitudes and beliefs about childbirth and timely consultation and intervention on the concerns will help pregnant women to cope with fear and anxiety which would have positive contributions on childbirth. Therefore, determination of women's attitudes and beliefs about childbirth and fulfilling their needs, have become a major focus of the policies related to international maternal health during pregnancy.

Objective of the Study

This study was primarily aimed to determine the attitudes, fear and state anxiety of primigravid women related to birth. Research questions are:

1. Is there a relationship between the childbirth fear score of women and some demographic data?
2. Is there a relationship between state anxiety score of women and some demographic data?
3. Is there a relationship between state anxiety and childbirth fear score of women?

MATERIAL AND METHODS

This study was done as a descriptive to determine the attitudes, fear and anxiety of primigravid women related to birth. Five hundred and nine primigravid pregnant women between 28 and 38 gestational weeks who were admitted to the Obstetrics Clinic for the Women's Hospital in Gaziantep, which is a state hospital, selected by random sampling method were included in the study. The data was collected between February 2015 and June 2015. This hospital is the largest women's hospital in the region, which has 188 bed capacity. It delivers a full range of secondary care services (inpatient and outpatient). The hospital is particularly focused on the health care of women and infants. The obstetrics clinic accepts 40 to 60 women per day. The inclusion criteria for the study were being primigravid, gestational age between 28-38 weeks (third trimester) and the lack of high-risk pregnancy. A Survey Form, Birth Attitude Scale and Spielberger State Anxiety Inventory were used as the data collection tools. After explaining the aim of the study, the sampled women were asked to fill out the Survey Form, Birth Attitude Scale and Spielberger State Anxiety Inventory. The implementation of the data collection tools took about 15-20 minutes for each participant.

Survey Form

The survey form that was developed by the researchers included nine questions related to socio-demographic information such as age, educational level, employment status etc., and information about childbirth (Poikkeus et al. 2006; Sahin et al. 2009; Alipour et al. 2011; Dönmez et al. 2014).

Childbirth Attitudes Questionnaire-CAQ

Childbirth Attitudes Questionnaire was developed by Lowe (2000) and still continues to be a widely used tool to measure fear of birth (Lowe 2000). The validity and reliability of the Turkish version was tested by Dönmez et al. in 2014. The childbirth attitudes questionnaire (CAQ) consisted of 14 Likert-type items, scored on a 4-point scale, ranging from never (1) to very often (4), therefore, the scores ranged from 14 to 64. High scores indicated high fear and the scores of over 28 were considered as fear of childbirth. Cronbach's alpha coefficient was .83, Cronbach's alpha coefficient for the Turkish version was 0.82 (1, 22). Cronbach alpha internal consistency coefficient was found to be 0.89 in this study.

Spielberger State Anxiety Inventory

The Spielberger State-Trait Anxiety Inventory is a well-known 40-item instrument which was developed by Spielberg et al. in 1964 to measure state and trait anxiety based on a person's answers. State of anxiety that evaluates the intensity of current feelings was measured by using the 20-item on the scale. All items are rated on a 4-point scale (1 = not at all, 2 = somewhat, 3 = moderately so, 4 = very much so). Scores range from 20 to 80, with higher scores correlating with greater anxiety. Lower than 36 indicate no anxiety, 37-42 indicate a mild form of anxiety whereas high scores (over 42) indicate a severe form of anxiety (23). The validity and reliability of the Turkish version were adapted by Öner and Le Compte in 1983 (Öner and Lecompte 1983). It is a kind of self-evaluation scale consisting of short words. Cronbach alpha internal consistency coefficient was found to be 0.90 in this study.

The study was carried out in accordance with the principles of the Helsinki Declaration. Permissions required to conduct the research were obtained from the hospital management. This study was approved by Gaziantep University Research Ethical Committee (Protocol no. 425). Verbal and written permission were collected from the participants by explaining women not to write any personal identification information on the questionnaire and participate in the study was voluntary. A permission to use the scale was also obtained.

The data were input in the Statistical Package for Social Sciences (version 22) for analysis. To determine the normality of the continuous variables Shapiro Wilk test was applied and found that data doesn't follow the normal distribution. Current state of anxiety and fear of birth was evaluated as independent measures. The mean, percentage numbers, correlation, Mann-Whitney and Kruskal-Wallis test was used to evaluate data. Findings were reported to be significant at a level less than 05.

RESULTS

In the study, 36.7 percent of pregnant women were between 24-29 years of age, 52.5 percent of primary school graduates, 89 percent of them were unemployed, 53 percent of them stated that their income was equivalent to their expenses, 80.2 percent of them were willing to conceive, 66.6 percent had chosen to give vaginal birth, 77.6 percent had regular prenatal visits during pregnancy. The characteristics related to pregnant women are shown in Table 1. The mean age of the women was 25.65 ± 4.89 (min = 18, max = 35) and the mean of the women's pregnancy week was 33.81 ± 3.39 (min = 28, max = 38).

Table 1: Distribution of socio-demographic and obstetrics characteristics of the pregnant women (n = 509)

Variables	*N*	*%*
Age		
18-23 years	187	36.7
24-29 years	187	36.7
30-35 years	135	26.6
Educational Status		
Elementary school	267	52.5
Secondary school	127	25.0
High School	79	15.5
University or higher degree	36	7.0
Occupation		
Employee	19	3.7
Government worker	24	4.7
Private	13	2.6
Unemployed	453	89.0
Income Level		
Income less than expenses	215	42.2
Income equivalent to expenses	270	53.0
Income higher than expenses	24	4.8
Status of Pregnancy Intention		
Yes	408	80.2
No	101	19.8
Preferred Mode of Delivery		
Vaginal birth	339	66.6
Ceseraen birth	170	33.4
Status of Having Regular Prenatal Visits		
Yes	395	77.6
No	114	22.4
Status of Having Information about Childbirth		
Yes	319	62.7
No	190	37.3

Mean score of fear of childbirth was found to be 39.90 ± 11.36 (min = 16, max = 64) and the mean anxiety score was 43.89 ± 8.04 (min = 20, max = 68). Fifty-seven percent of pregnant women had high state anxiety, 27.3 percent suffered from mild anxiety while 15.5 percent suffered no trait anxiety. The result of Pearson correlation analysis showed a positive, weak and statistically significant relationship between the average total score of birth attitude and state anxiety of primigravid women (r = .211, p = 0.001).

When birth attitude mean scores were examined according to some characteristics of the

participants; highest score of birth attitudes scale was found to be pregnant women who were between 18-23 years of age (40.79 ± 11.31), high school graduates (41.60 ± 11.25), government worker (42.54 ± 11.72), income less than expenses (40.19 ± 11.08), not willing to conceive (41.08 ± 10.34), chosen to give vaginal birth (41.39 ± 11.45), not regular prenatal visits (42.59 ± 10.42) and not having information about childbirth (41.13 ± 11.36). There was no statistically significant difference between the mean scores birth fear and women's age (KW = 2.550, p = 0.279), educational level (KW = 2.701, p = 0.440), employment status (KW = 4.620, p = 0.202), income levels (KW = 1.650, p =0.438) and status of pregnancy intention (U = 1.910, p = 256). The mean scores of Childbirth Attitude Scale according to the method of delivery (U = 2.192, p = 0.000), status of having regular prenatal visits during pregnancy (U = 1.857, p = 0.004) and status of having information about childbirth (U = 2.684, p = 0.031) were found to be statistically significant. The characteristics related to birth attitude mean scores are shown in Table 2.

When state anxiety mean scores were examined according to some characteristics of the

Table 2: Comparison of birth attitude and state anxiety mean scores according to some variables (n = 509)

Variables	*Birth attitude*		*State anxiety*	
	Mean ± SD	*Min - Max*	*Mean ± SD*	*Min - Max*
Age				
18-23 years	40.79 ± 11.31	16-64	45.09 ± 8.85	20-68
24-29 years	38.90 ± 11.75	16-64	42.83 ± 6.93	20-55
30-35 years	40.05 ± 10.85	16-61	43.74 ± 8.15	20-63
	KW = 2.550 p = 0.279		KW = 6.684 p = 0.035*	
Educational Status				
Elementary school	39.40 ± 11.22	16-64	43.25 ± 7.72	20-61
Secondary school	40.13 ± 11.58	16-64	44.37 ± 8.75	20-68
High School	41.60 ± 11.25	16-64	44.59 ± 8.04	20-67
University or higher degree	38.80 ± 11.87	16-60	45.44 ± 7.62	33-63
	KW = 2.701 p = 0.440		KW = 2.596 p = 0.458	
Occupation				
Employee	40.68 ± 12.14	16-62	42.63 ± 6.73	31-53
Government worker	42.54 ± 11.72	16-61	45.41 ± 9.25	20-63
Private	35.30 ± 8.87	23-53	45.53 ± 8.88	33-63
Not working	39.86 ± 11.36	16-64	43.82 ± 8.01	20-68
	KW = 4.620 p = 0.202		KW = 1.156 p = 0.764	
Income Level				
Income less than expenses	40.19 ± 11.08	16-64	42.88 ± 8.14	20-65
Income equivalent to expenses	39.94 ± 11.60	16-64	44.37 ± 7.75	20-68
Income higher than expenses	36.79 ± 11.25	16-60	47.62 ± 9.04	33-63
	KW = 1.650 p = 0.438		KW = 7.805 p = 0.020*	
Status of Pregnancy Intention				
Yes	39.60 ± 11.59	16-64	44.10 ± 8.31	20-68
No	41.08 ± 10.34	16-64	43.05 ± 6.84	20-57
	U = 1.910 p = 0.256		U = 18514.00 p = 0.114	
Preferred Mode of Delivery				
Vaginal birth	41.39 ± 11.45	16-64	44.22 ± 8.02	20-67
Ceseraen Birth	36.92 ± 10.61	16-62	43.25 ± 8.06	20-68
	U = 2.192 p = 0.000*		U = 26353.00 p = 0.115	
Status of Having Regular Prenatal Visits				
Yes	39.12 ± 11.52	16-64	43.70 ± 8.01	20-68
No	42.59 ± 10.42	16-64	44.55 ± 8.16	20-67
	U = 1.857 p = 0.004*		U=21102.00 p=0.307	
Status of Having Information About Childbirth				
Yes	39.16 ± 11.32	16-64	44.20 ± 8.37	20-68
No	41.13 ± 11.36	16-64	43.38 ± 7.44	20-63
	U = 2.684 p = 0.031*		U = 28229.50 p = 0.196	

*p < 0.05

participants; highest score of state anxiety scale was found to be pregnant women who were between 18-23 years of age (45.09 ± 8.85), university or higher degree school graduates (45.44 ± 7.62), private worker (45.53 ± 8.88), income higher than expenses (47.62 ± 9.04), willing to conceive (44.10 ± 8.31), chosen to give vaginal birth (44.22 ± 8.02), not regular prenatal visits (44.55 ± 8.16) and having information about childbirth (44.20 ± 8.37). there was no statistically significant difference between the mean scores of state anxiety and educational level (KW = 2.596, p = 0.458), occupation (KW = 1.156, p = 0.764), status of wanted pregnancy (U = 18514.0, p = 0.114), the preferred method of delivery (U = 26353.0, p = 0.115) status of having regular prenatal visits during pregnancy (U = 21102.0, p= 0.307), and status of having information about childbirth (U = 28229.5, p = 0.196). The mean scores of state anxiety according to age (KW = 6.684, p =0.035) and income level (KW = 7.805, p = 0.020) was found to be significant (Table 2). A statistically significant difference was found between 18-23 and 24-29 age group (p = 0.010) while there was no statistically significant difference between 18-23 and 30-35 age group (p = 0.273), 24-29 and 30-35 age groups (p = 0.204). A statistically significant difference was found between women with income less than expenses and income equivalent to expenses group and women with income less than expenses and income higher than expenses group (p = 0.035) The characteristics related to state anxiety mean scores are shown in Table 2.

When pregnant women's status of fear was examined, 87 percent of pregnant women had fear about birth due to possibility of injury to their infant during birth, 83.7 percent of them stated fear of something being wrong with the baby, 77.2 percent stated fear about having painful contractions, 76.2 percent had fear about delivery, 74.9 percent of them stated fear of not getting the kind of care that they want, 74.3 percent of them had difficulty relaxing when thinking of the coming birth, 73.1 percent of them stated fear of being torn with the birth of the baby, 71.7 percent of them stated fear of being left alone during labor, 70.9 percent of them stated fear of losing control of themselves at the delivery, 70.5 percent of them had rate their anxiety about childbirth, 68.8 percent of them stated fear of having to have a Cesarean section, 68.6 percent of them stated fear of bleeding too much during the delivery, 64.6 percent of them stated fear of painful injections and fear that they will not be able to help during the delivery, 50.5 percent of them stated fear of the hospital environment and 28.1 percent of them had nightmares about the delivery. The distribution related to pregnant women's statements of fear are shown in Table 3.

Also, as shown in Table 4, Univariate analysis of the variables significantly associated with birth attitude scores was included in the regres-

Table 3: Distribution of fear of childbirth according to childbirth attitudes questionaire

S. No.	*Distiribution of fear of childbirth*	*Yes*		*No*	
		n	*%*	*n*	*%*
1.	I have fear of losing control of myself at the delivery.	361	70.9	148	29.1
2.	I am really afraid of giving birth.	388	76.2	121	23.8
3.	I have nightmares about the delivery.	143	28.1	366	71.9
4.	I have fear of bleeding too much during the delivery.	349	68.6	160	31.4
5.	I have fear I will not be able to help during the delivery.	329	64.6	180	35.4
6.	I have fear of something being wrong with the baby.	426	83.7	83	16.3
7.	I have fear of painful injections.	329	64.6	180	35.4
8.	I have fear of being left alone during labor.	365	71.7	144	28.3
9.	I have fear of having to have a Cesarean section.	350	68.8	159	31.2
10.	I have fear of being torn with the birth of the baby	372	73.1	137	26.9
11.	I have fear of the baby being injured during the delivery.	443	87.0	66	13.0
12.	I have fear of painful labor contractions.	393	77.2	116	22.8
13.	I have difficulty relaxing when thinking of the coming birth.	378	74.3	131	25.7
14.	I have fear of the hospital environment.	257	50.5	252	49.5
15.	I have fear of not getting the kind of care that I want.	381	74.9	128	25.1
16.	Overall, I would rate my anxiety about childbirth as 1 (no anxiety), 2 (low anxiety), 3 (moderate anxiety), or 4 (high anxiety).	359	70.5	150	29.5

Table 4: Regression analyze of birth attitude mean scores

Model		*Unstandardized coefficients*		*Standardized coefficients*	*t*	*P*
		B	*Std. error*	*Beta*		
1	(Constant)	29.360	3.321		8.840	0.001
	Birth attitude mean score	.276	.060	.196	4.595	0.001
	Mode of delivery	-4.292	1.024	-.178	-4.190	0.001
	Regular prenatal visits	3.381	1.158	.124	2.920	0.004

sion analysis ($R^2 = 0.090$). According to multiple linear regression analysis, the birth attitude score was inversely correlated with mode of delivery with standardized beta coefficients of -0.178 ($p = 0.001$) and was correlated with regular prenatal visits with standardized beta coefficients of 0.124 ($p = 0.004$).

In addition, as shown in Table 5, Univariate analysis of the variables significantly associated with state anxiety scores were included in the regression analysis ($R^2 = 0.065$). According to multiple linear regression analysis, the state anxiety mean score was correlated with income level with standardized beta coefficients of 0.136 ($p = 0.002$), while age was not correlated with standardized beta coefficients of -0.059 ($p = 0.171$).

DISCUSSION

This study was done to determine the attitudes, fear and anxiety of primigravid women related to birth. In this study, the majority of the pregnant women were between 18-29 years old, were not working and more than half had elementary school education. According to Turkish Demographic Health Survey, the highest age-specific fertility rates are found between the 25-29 age groups (Wendy et al. 2009; TDHS 2013; Benediktson et al. 2013).

In the present study, majority of the pregnant women had high anxiety. A study with 14 measurements of maternal emotions during pregnancy show modest effects of prenatal emotions during the third pregnancy trimester, particularly in the weeks close to delivery, on gestational length (Pesonen et al. 2016). Another study performed by George et al. indicated that 18.5 percent of pregnant women presented severe anxiety symptoms while 24.5 percent presented moderate anxiety symptoms and 59.3 percent of the women who were anxious at the prenatal phase remained anxious after birth (George et al. 2013) Another study of 160 pregnant women at 28-30 gestational week found that more than half of women had state anxiety (Alipour et al. 2011). Kaplan et al. (2007) found that the state anxiety level was higher in the prenatal period compared to postpartum period (Kaplan and Bahar 2007; Gosselin et al. 2016). In another study, antenatal anxiety was found 14 percent and postnatal anxiety was found percent (Henderson and Redshaw 2013). In the literature it is indicated that anxiety in the prenatal period increases postnatal depression which adversely affects maternal and child health during pregnancy, at birth and postnatal period (Fairbrother and Woody 2007; Skouteris et al. 2009; Coelho et al. 2011; Alipour 2012). Therefore, it is important to identify pregnant women's level of anxiety in the perinatal period and take necessary steps to reduce the anxiety.

This study also found that younger age increases the state anxiety. Research result was consistent with the literature. Studies indicated that women smaller in age had increased state anxiety (Sahin et al. 2009; Tsuchiya et al. 2015).

Table 5: Regression analyze of state anxiety mean scores

Model		*Unstandardized coefficients*		*Standardized coefficients*	*t*	*P*
		B	*Std. error*	*Beta*		
	(Constant)	35.869	1.880		19.084	0.001
	State anxiety mean score	0.152	0.030	0.215	4.992	0.001
	Age	-0.601	0.439	-0.059	-1.370	0.171
	Income level	1.910	0.604	0.136	3.161	0.002

Higher income level of pregnant women were also found to have increased state anxiety. In the literature, it is indicated that lower income level increases anxiety unlike the reaserchers' result (Tekgöz et al. 2009). A Turkish study found that having low income level increases the incidence of anxiety (Arslan et al. 2011). A study with 30,480 nulliparous women found that fear of birth was associated with unemployment (Laursen et al. 2008). This may have stemmed from the fact that the participants may have given biased answers about their income level due to embarrassment or discomfort in talking about income that is why the researchers' study may have yielded a different result. Therefore, it is recommended for future studies that low income women especially should be questioned in terms of childbirth fear and anxiety in primary health care centers. In the researchers' study, it was found that majority of the women preferred vaginal birth; fear of birth was higher than for those who chose caesarean section. In the literature, it is indicated that women's concerns and fears related to normal birth increase the rate of cesarean births (Laursen et al. 2008; Rouhe et al. 2009; Nieminen et al. 2009; Haines et al. 2012). A study from Sweeden found that the fear of childbirth was associated with a three to six times higher rate of elective caesarean sections but not with higher rates of emergency caesarean section (Waldenström et al. 2006). A study conducted by Pang et al. to determine the impact of first childbirth on changes in women's preference for mode of delivery found that twenty-four percent of women changed from preferring vaginal birth to elective cesarean section after their first childbirth due to higher anxiety and fear of vaginal birth (Pang et al. 2008). Dönmez et al. found that 76.2 percent of Turkish pregnant women preferred vaginal birth, of those 9.3 percent stated a preference for vaginal birth due to childbirth fear (Dönmez et al. 2014). But, the researchers' did not investigate the factors affecting the choice of vaginal birth in this study. Therefore, future studies to investigate this result is also recommended.

The present study determined that women's preferred mode of delivery, status of having regular prenatal visits during pregnancy and having information about childbirth affect the fears and attitudes of women about childbirth. Women who had information about childbirth, preferred the mode of delivery as caesarean section and have had regular prenatal visits during pregnancy had lower level of fear and these variables were found to be not associated with state anxiety. A study was determined that if positive perception regarding birth was provided with the preparation education for birth then the fear of childbirth decreased (Kizilirmak and Baser 2016). Former studies stated that having information about childbirth before the birth reduces the state anxiety. A study from the U.S.A indicated that college students thought birth was painful and their fear of childbirth was found to be associated with a lack of knowledge (Cleeton 2001). Subasi et al. (2013) showed that the education given to 30 pregnant women in the last trimester reduced the negative thoughts and fears about childbirth (Subasi et al. 2013). The study of Navaee and Abedian (2015) aimed to investigate the effect of role play education on primiparous women's fear of natural delivery found that the effect of role play was more in making a decision on natural delivery, reducing the fear of childbirth (Navaee and Abedian 2015). According to Haines et al., it is important to consider where, what, how and by whom, the information is given to the pregnant women (Haines 2012). Health professionals have an important role to provide necessary evidence based information to women in order to develop positive, healthy attitudes towards birth. In line with these results, it is important to route women to the correct source by investigating the womens' sources of information.

It was determined that women's fears and anxiety about childbirth affects attitudes towards birth and anxiety should be thought as a risk factor for fear of birth (Alipour et al. 2011). This study also demonstrated that there is a relationship between the fear of birth and state anxiety. Our result is consistent with the literature. An Iranian study demonstrated that anxiety was significantly associated with fear of childbirth among nulliparous women (Alipour et al. 2011). A study from Finland reported that fear of childbirth was associated with the general anxiety of pregnant women (Saisto et al. 2001). Hall et al. reported that one out of four women had high levels of childbirth fear. Childbirth fear and anxiety were found to be positively correlated, higher levels of anxiety predicted higher levels of childbirth fear among women (Hall et al. 2009). In a study performed in Turkey, a significant rela-

tionship was found between fear of childbirth and general anxiety (Körükcü et al. 2010).

Women with first pregnancy have higher rates of fear from childbirth due to inexperience and not having enough information about birth (Katri et al. 2016). In the researchers' study, it was determined that women have higher rates of fear about their and their baby's health and hospital environment. Similar to the resarchers' work, a study with 8000 pregnant women in Switzerland indicated that the most common fears of birth were fear about the baby's health and fear of pain (Geissbuehler and Eberhard 2002). Also, a study found that antenatal education appears to increase the acceptance of pregnancy, but does not affect the identification with motherhood role and reduces the fear of childbirth (Karabulut et al. 2016). The literature also shows that women have fear of damage to the perineum area, adverse effects on sexual life, the screams of the medical staff, failure at birth or insufficient support (Egelioglu et al. 2016).

CONCLUSION

In the study, it was determined that majority of the pregnant women had high level anxiety and fear. Women who stated having information about childbirth, preferred mode of delivery as caesarean section and have had regular prenatal visits during pregnancy had lower level of fear. A relationship was found between state anxiety and fear of childbirth. This study also found that age and income situation of pregnant women affect the level of state anxiety. In line with these results, it is recommended to route women to the correct source by investigating the womens' sources of information and creation of childbirth classes in order to prepare women for childbirth in a healthy way. It is well understood that in order for women to have positive birth experience, it is important to break the cycle of tension, pain and fear.

RECOMMENDATIONS

Health professionals should focus on the fear and anxiety of pregnant women about birth and they should also improve their own knowledge and skills related to the issue. Nurses and midwives should be encouraged to display positive attitudes towards birth by organizing courses and in-service training for them to improve their knowledge and skills regarding the assessment of birth fear and anxiety. Future research is necessary to investigate the relationship between early and advanced maternal age and anxiety level and other factors that increase anxiety by using a larger sample. It is recommended that low income women especially should be questioned in terms of childbirth fear and anxiety in primary health care centers.

LIMITATIONS OF THE STUDY

The researchers' study also has several limitations. First, samples were limited to women living in Gaziantep, primigravid, whose gestational age were 28- 38 weeks (third trimester), married, which may limit the generalizability of the researchers' findings to other populations. Second, the researchers' did not include nulliparous women in the study. So it is difficult to make comparisons about fear of pregnancy and state anxiety. Third, the researchers' only evaluated state anxiety in this study.

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