

Original Article

Worries About Birth and Labour of Pregnant Women: A Descriptive and Cross-Sectional Study

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Abstract

Background: Pregnancy is a major life transition accompanied by significant biological and psychological changes, during which worry is commonly experienced.

Aim: This study was conducted to determine the affecting factors and worry about birth and labour of pregnant women.

Methods: The sample of the descriptive and cross-sectional study included 415 pregnant women who applied to the pregnancy outpatient clinics of a Training and Research Hospital. The data were collected between March 1, 2018, and August 31, 2018, with the personal information form and the Oxford Worries About Labour Scale.

Results: The average age of the pregnant women was 27.40 ± 5.48 . In this study, the Oxford Worries About Labour Scale mean score of pregnant women was 28.00 ± 7.62 . The most common major worries about childbirth and labor were pain and discomfort, prolonged labor, and uncertainty regarding the onset and duration of labor. No significant differences were found in overall worry scores according to sociodemographic characteristics ($p > 0.05$). However, primiparous women, women with a previous vaginal birth, and those planning a vaginal delivery in the current pregnancy reported significantly higher levels of pre-labor worry ($p < 0.05$). Multiple linear regression analysis identified previous mode of birth, whether the pregnancy was planned, and having a support person during pregnancy as significant predictors of prenatal worry.

Conclusion: Worries related to childbirth and labour are common among pregnant women and are influenced primarily by obstetric history and psychosocial factors rather than sociodemographic characteristics. These findings highlight the importance of individualized antenatal care and psychosocial support to reduce pre-labor worry, particularly among women with identified risk factors.

Keywords: Birth, Childbirth, labour, pregnant women, worry, nursing

Background

Pregnancy is a period in a woman's life characterized by biological, psychological, and social changes (Sahin et al., 2009). Pregnancy is a period of transition, development, and maturity. Generally, worry is considered a normal condition during pregnancy (Grant et al.,

2008). The birth of a child is a significant life event, and women may experience a variety of emotions, including worry (Schaal et al., 2019). Although worry is useful for coping with a new situation or difficulty, it can cause fear and anxiety if not intervened (Grant et al., 2008; Wilkinson et al., 2016).

Anxiety and worry are terms used interchangeably. Although fear and worry are thought to be words that mean the same thing, they have different meanings. Worry is a type of fear that is vague and felt without understanding what the problem is. While fear is a state that involves instant reactions, anxiety occurs when the risky situations that may occur in the future are felt (Kucukkaya et al., 2018). Symptoms of anxiety are observed in approximately half of women during pregnancy (Wilkinson et al., 2016). Birth anxiety is reported to be a condition neglected by health professionals, even though it causes serious negative consequences and has a close relationship with depression (Dennis et al., 2017).

Studies have shown that prenatal anxiety is caused by situations such as fear of not being able to attend birth, type of birth and birth process, first pregnancy, unplanned pregnancy, previous negative birth experience, trimester of pregnancy, negative behavior of health professionals, not having sufficient information about labour, birth. pain, episiotomy, the thought that the baby may be harmed or die during birth, not receiving adequate support after birth, breastfeeding, and changes in family roles (Hildingsson & Larsson, 2021; Kucukkaya et al., 2018; Ust & Pasinlioglu, 2015; Penacoba-Puente et al., 2011).

A high level of birth anxiety may lead to an increase in obstetric complications (Cankaya & Yilmaz, 2020). Studies have found that among women experiencing prenatal anxiety, there is more mortality and morbidity, shorter gestation period, more low birth weight (Staneva et al., 2015), a greater desire for pain relief during vaginal birth, and a higher demand for cesarean section (Schaal et al., 2019). There are also significant neonatal effects of birth anxiety. Studies have found that birth anxiety is associated with premature birth (Dennis et al., 2017; Rose et al., 2016; Ding et al., 2014), low birth weight (Grigoriadis et al., 2018; Ding et al., 2014), early gestational age, early gestational age and smaller head circumference (Grigoriadis et al., 2018). In addition to its physiological effects, high levels of prenatal anxiety can cause postpartum mental health problems and negative effects on newborn development (Grant et al., 2008). In a study, women who expressed extreme concern about the baby's safety during labour and birth were more likely to experience postpartum depression. was found to be higher (Stapleton et al., 2020). Excessive anxiety or worry can lead

to fear and difficulty in managing birth (Hildingsson et al., 2021). A study found that women are most worried about something wrong with the baby, about giving birth, and about the risk of miscarriage. In this study, fear of childbirth was associated with high levels of anxiety (Hildingsson et al., 2021). Matinnia et al. (2015) reported that approximately 70% of women who chose cesarean delivery experienced severe fear. It has been emphasized that the most important reason that increases fear is the method of birth and the birth process (Matinnia et al, 2015).

It is considered an important public health problem because the negative impact of perinatal mental health on both the mother and the newborn brings a significant economic burden to society if left untreated (Dennis et al., 2017). For this reason, the importance of providing diagnostic and treatment services for prenatal anxiety and depression has recently been emphasized around the world. Prenatal interventions are gaining importance in reducing the level of anxiety. Providing prenatal education to pregnant women can reduce the possible negative effects of prenatal anxiety on fetal development, prevent postnatal depression and anxiety, and reduce the risk of developmental delay in children exposed to prenatal anxiety and depression (Wilkinson et al., 2016).

When the studies in the literature are examined, it is seen that fear of birth is mostly examined (Sahin et al., 2009; Aksoy et al., 2014; Barut and Ucar, 2018), and studies examining birth anxiety are included less frequently. This study was conducted to determine birth anxiety and affecting factors in pregnant women.

Research questions:

- What is the level of anxiety in pregnant women before birth?
- What are the factors affecting the level of prenatal anxiety in pregnant women?

Methods

Design and participants: This study is descriptive and cross-sectional. The study population consisted of pregnant women who applied to the pregnancy outpatient clinics of a Training and Research Hospital in the Black Sea Region of Turkiye, and the sample consisted of 415 pregnant women who met the research inclusion criteria and agreed to participate. The number of samples to be included in the research was determined according to the sample calculation formula when the population

was known. The known population formula was used to determine the number of pregnant women to be sampled, as previously reported by Aslan et al. (2011) found that 415 pregnant women had to be recruited with an anxiety rate of (29%), (Arslan et al, 2011).

Data collection: Data was collected with a personal information form and the Oxford Worries About Labour Scale (OWLS). The purpose of the research was explained to the pregnant women who applied to the maternity outpatient clinics and agreed to participate in the study, and their written informed consent was obtained. Data was collected face-to-face between March 1 and August 31, 2018. The personal information form and scale application took approximately 15 minutes. The personal information form and scale were filled out by the pregnant women who agreed to participate in the study. Before starting the research, a preliminary application was made by applying the personal information form and scale prepared by the researcher to 42 pregnant women. Since no changes were made, the personal information form and scales filled out in the preliminary application were included in the scope of the research.

Criteria for inclusion in the study: Women who were pregnant, married, at least 18 years old, literate, able to communicate verbally, and volunteered to participate were included in the study.

Criteria for exclusion in the study: Women who were illiterate, had psychological disorders during pregnancy or pre-pregnancy, and were unable to communicate verbally were excluded from the scope of the research.

Instruments

Personal Information Form: The personal information form, which includes the descriptive characteristics of the women, was created by the researcher in line with the relevant literature (Kucukkaya et al., 2018; Ust & Pasinlioglu, 2015; Uslu Yuvaci et al., 2020). Socio-demographic characteristics of pregnant women; It includes age, education level, profession, family type, place of residence and family income level. Obstetric characteristics included the number of living children, whether the pregnancy was planned, the number of births and the type of birth.

Oxford Worries About Labour Scale: The Oxford Worries About Labour Scale (OWLS) developed by Redshaw (2009) and adapted into Turkish by Aksoy & Ozenturk (2014) to determine worry about labour and birth, of women who have just given birth, has a Likert

type and 10 items (Aksoy, 2014; Aksoy & Ozenturk, 2017). The Turkish validity and reliability study of the OWLS has three sub-dimensions named "labour pain and distress" (items 4., 5., 6.,7.), "pre-labour uncertainty" (items 1.,2.,8.) and "interventions" (items 3.,10.), (Aksoy & Ozenturk, 2014). As a result of the exploratory factor analysis (EFA) of the scale, item 9 ("concerned about embarrassment") was not included in any subdimension due to insufficient factor loading (Aksoy & Ozenturk, 2014). The scale can be applied to women in all periods before, during and after birth. "1: *"I was very worried"* was scored as 1 point, *"I was not worried at all"* was scored as 4 points. The lowest score from the scale can be 10 and the highest score can be 40. The scale has no cut-off value; the higher the score, the lower the birth anxiety. In the original form of the scale, the Cronbach alpha reliability coefficient is 0.83 for the entire scale and 0.72, 0.65, 0.49 for its sub-dimensions, respectively. In this study, the Cronbach Alpha reliability coefficient was 0.85 for the entire OWLS, 0.82 for the "Labour pain and distress" sub-dimension, 0.58 for the "Pre-labour uncertainty" sub-dimension, and 0.59 for the "Interventions" sub-dimension, respectively has been found In the present study, the Cronbach Alpha reliability coefficient was 0.85 for the entire OWLS, and 0.82, 0.58, 0.59 for its sub-dimensions, respectively.

Ethical Considerations: Permission was obtained from the author for the OWLS used in the research. Institutional permission was received from the Provincial Health Directorate (date 23.02.2018 and number: E.63415014) to conduct the research. Ethics committee approval was received from the Ordu University Clinical Research Ethics Committee (date:29.03.2018, number:2018/60). Before starting to collect data, pregnant women were informed about the purpose of the study and written informed consent was obtained from volunteer pregnant women who agreed to participate in the study. This study conforms to the provisions of the Declaration of Helsinki.

Statistical Analysis: Descriptive statistical methods including frequency, percentage, mean, standard deviation, minimum and maximum values were used to analyze the data of the study, and the suitability of OWLS scores to normal distribution was evaluated with the Kolmogorov-Smirnov test. Since the data did not comply with normal distribution, nonparametric tests, Kruskal Wallis test and Mann-Whitney U Test, were used to evaluate

differences between independent groups. In variables with more than two groups, Tamhane's test was used to evaluate which group caused the difference. Variables that predict pregnant women's prenatal anxiety were examined with multiple linear regression analysis. In the study, data were considered significant at the $p < 0.05$ level within the 95% confidence interval. In the present study, the Cronbach Alpha reliability coefficient was 0.85 for the entire OWLS, and 0.82, 0.58, 0.59 for its sub-dimensions, respectively

Results

The average age of the pregnant women participating in the study was 27.40 ± 5.48 and 37.6% were found to be in the 22-26 age group.

It was determined that 37.6% of the pregnant women were high school graduates, 79.3% were housewives, and 61.4% stated their income as "medium".

It was determined that 18.6% of the pregnant women participating in the study had curettage, 20.5% had a miscarriage and 6.7% received infertility treatment. It was determined that 72% of pregnant women had a planned pregnancy.

It was determined that 28% of the pregnant women had their previous births by cesarean section, and 61% of them planned a normal birth in their current pregnancy.

The rate of pregnant women who stated that their previous birth experience was positive is 77.7%.

It was found that 37.3% of pregnant women received prenatal education and 52.5% of these pregnant women received training from health personnel (Table 1).

The average OWLS score of pregnant women was found to be 28.00 ± 7.62 . The mean scores of the sub-dimensions of the scale are; It was determined as 10.44 ± 3.75 for "Labour pain and distress", 8.79 ± 2.40 for "Pre-labour uncertainty", and 5.82 ± 1.99 for "Interventions".

According to the score obtained from the scale, it was found that pregnant women's birth anxiety was close to medium level.

The very worries about birth and labour are pain and discomfort of labour (33%), having a long

labour (29.6%), not knowing how long labour would take (27.2%), not knowing when I would go into labour (27%) and embarrassment (20%).

The quite worries about birth and labour are pain and discomfort of labour (24.8%), not knowing how long labour would take (23.9%), having a long labour (22.4%), having to be induced (19.5%), (Table 2).

There was no significant difference between the sociodemographic characteristics of the pregnant women according to their average Oxford Worries About Labour Scale score ($p > 0.05$), (Table 3).

It was determined that the anxiety level of primiparous pregnant women (25.44 ± 6.96) was significantly higher than that of multiparous pregnant women (30.90 ± 7.49) ($p < 0.001$), (Table 4).

It was determined that the level of anxiety was higher in women who had a normal birth before (26.91 ± 7.25) than in women who gave birth by cesarean section (33.41 ± 6.24) and the difference was statistically significant ($p < 0.001$), (Table 4).

It was found that the anxiety level of women who were planned to give birth by normal delivery in their current pregnancy (25.64 ± 7.16) was significantly higher than women who were planned to give birth by cesarean section in their current pregnancy (31.69 ± 6.82) ($p < 0.001$), (Table 4).

It was determined that the differences between the groups in the mean OWLS scores according to whether the pregnancy was planned, trimester of pregnancy, perception about previous birth experience, support during pregnancy, and prenatal education were not statistically significant ($p > 0.05$), (Table 4).

The results of multiple linear regression analysis of variables predicting prenatal anxiety of pregnant women are given in Table 5. According to the results of multiple linear regression analysis, the variables that predictors of pre-labour worry of pregnant women are, in order of importance; previous type of birth ($\beta = -0.361$), whether the pregnancy was planned or not ($\beta = 0.176$), and having a support person during pregnancy ($\beta = -0.149$), (Table 5).

Table 1. Distribution of pregnant women according to their obstetric characteristics

Obstetric characteristics	n	%
Have a Curretage		
Yes	77	18.6
No	338	81.4
Have a miscarriage		
Yes	85	20.5
No	330	79.5
Planned pregnancy status		
Yes	299	72.0
No	116	28.0
Planned birth type in current regnancy		
Vaginal birth	253	61.0
Cesarean section	162	39.0
Trimester of pregnancy		
1st trimester	13	3.1
2nd trimester	11	2.7
3rd trimester	291	94.2
Risk in current pregnancy		
Yes	64	15.4
No	351	84.6
Infertility treatment for this pregnancy		
Yes	28	6.7
No	387	93.3
Parity		
Primipar	191	46.0
Multipar	224	54.0
Type of previous birth		
Normal birth	108	26.0
Cesarean section	116	28.0
Previous birth experience		
Positive	188	77.7
Negative	54	22.3
Presence of a support person during pregnancy		
Yes	399	96.1
No	16	3.9
Receiving education about birth		
Yes	155	37.3
No	260	62.7
person or place from which information about the birth is obtained		
Health personnel	62	52.5
Pregnancy education book	11	9.3
Birth preparation course	2	1.7
Internet	43	36.5
Total	415	100.0

Table 2. Distribution of pregnant women's worries about labour and birth according to the OWLS

OWLS Items	Very worried		Quite worried		Not very worried		Not at all worried	
	n	%	n	%	n	%	n	%
1. Not knowing when I would go into labour	112	27.0	80	19.3	93	22.4	130	31.3
2. Getting to the hospital in time	46	11.1	44	10.6	66	15.9	259	62.4
3. Having to be induced	78	18.8	79	19.5	74	17.8	182	43.7
4. Having a long labour	123	29.6	93	22.4	68	16.4	131	31.6
5. Pain and discomfort of labour	137	33.0	103	24.8	61	14.7	114	27.5
6. Getting effective pain relief	49	11.8	71	17.1	99	23.9	196	47.1
7. Not knowing how long labour would take	113	27.2	99	23.9	81	19.5	122	29.4
8. Having a forceps or ventouse delivery	70	16.9	79	19.0	82	19.8	184	44.3
9. Embarrassment	83	20.0	67	16.1	56	13.5	209	50.4
10. Needing a cesarean	78	18.8	70	16.9	57	13.7	210	5.6

Table 3. Comparison of scores of OWLS and its sub-dimensions according to some characteristics of pregnant women

Characteristic s of Pregnant Women	n	Labour pain and distress sub-dimension Mean±SD	Pre-labour uncertainty sub-dimension Mean±SD	Interventions sub-dimension Mean±SD	OWLS Total Mean±SD
Age groups					
18-22 years	77	10.40±3.38	8.51±2.56	5.85±1.88	27.68±6.68
23-27 years	154	10.14±3.91	8.61±2.45	5.58±2.02	27.19±7.91
28-32 years	101	10.23±3.82	8.81±2.41	6.00±2.05	28.03±7.74
33 and ↑	83	11.27±3.65	9.36±2.55	6.04±1.95	29.77±7.57
Test* and p		KW= 5.589 p= .133	KW= 7.681 p= .053	KW=4.395 p= .222	KW= 6.596 p= .086
Education level					
Primary school	52	11.07±3.69	8.76±2.55	5.82±2.04	28.58±7.89
Secondary school	136	10.49±3.84	8.93±2.43	5.99±1.91	28.26±7.62
High School	156	10.58±3.65	8.82±2.47	5.85±2.03	28.26±7.45
University	71	9.56±3.76	8.47±2.62	5.46±2.00	26.52±7.77
Test* and p		KW= 5.533 p= .120	KW= 1.106 p= .776	KW=3.56 p= .313	KW=3.014 p= .389
Income level					
Low level	10	12.50±3.17	7.90±2.64	5.10±2.02	28.40±7.05
Middle level	255	10.29±3.79	8.75±2.51	5.89±1.98	27.80±7.69
Good level	150	10.54±3.71	8.92±2.45	5.76±2.00	28.32±7.58

<i>Test* and p</i>		KW= 3.508 p= .173	KW= 1.625 p= .444	KW=1.653 p= .438	KW= .629 p= .730
Working status					
Housewife	329	10.30±3.69	8.69±2.49	5.82±1.96	27.67±7.495
Employee	25	10.48±3.90	9.64±2.15	5.76±2.24	29.20±7.757
Officer	17	10.35±4.41	8.76±2.75	6.35±1.80	28.47±8.434
Self-employment	24	12.54±3.36	9.83±2.21	6.33±1.71	32.17±6.857
Other	20	10.20±4.11	8.20±2.66	4.90±2.35	26.60±8.720
<i>Test* and p</i>		KW= 8.211 p= .084	KW= 9.203 p= .056	KW=5.548 p= .236	KW=9.370 p= .052
Chronic disease					
Yes	39	11.12±3.61	8.84±2.47	5.87±1.85	28.54±6.684
No	376	10.36±3.77	8.78±2.50	5.82±1.99	27.95±7.721
<i>Test* and p</i>		Z=-1.194 p= .233	Z=-.210 p= .834	Z=-.042 p= .966	Z=-.349 p= .727

*Kruskal Wallis test **Mann-Whitney U test

Table 4. Comparison of Scores of the OWLS and its Sub-Dimensions According to the Obstetric Characteristics of Pregnant Women

Obstetric characteristics	n	Labour pain and distress sub-dimension Mean±SD	Pre-labour uncertainty sub-dimension Mean±SD	Interventions sub-dimension Mean±SD	OWLS Total Mean±SD
Planned pregnancy status					
Yes	299	10.29±3.67	8.60±2.52	5.76±2.07	27.64±7.64
No	116	10.81±3.94	9.26±2.36	6.00±1.75	28.94±7.52
<i>Test* and p</i>		Z=-1.277 p= .201	Z=-2.414 p= .016	Z=-.700 p= .484	Z=-1.545 p= .122
Planned birth type in current pregnancy					
Vaginal birth	253	9.52±3.60	8.17±2.42	5.09±1.87	25.64±7.16
Cesarean section	162	11.86±3.55	9.75±2.30	6.96±1.59	31.69±6.82
<i>Test* and p</i>		Z=-6.167 p= .000	Z=-6.665 p= .000	Z=-9.881 p= .000	Z=-7.899 p= .000
Trimester of pregnancy					
1st trimester	13	10.76±3.34	8.84±2.47	5.46±1.89	28.00±6.96
2nd trimester	11	10.27±3.60	9.09±2.34	6.18±1.88	28.18±7.06
3rd trimester	391	10.43±3.78	8.78±2.50	5.83±2.00	28.00±7.63
<i>Test** and p</i>		KW=.111 p=.946	KW=.113 p=.945	KW=.942 p=.624	KW=.004 p=.998
Risk in current pregnancy					
Yes	64	10.78±4.10	8.87±2.74	5.98±1.86	28.67±8.00
No	351	10.37±3.69	8.77±2.45	5.80±2.01	27.88±7.55
<i>Test* and p</i>		Z=-.785 p= .433	Z=-.522 p= .602	Z=-.689 p= .491	Z=-.763 p= .446
Infertility treatment for this pregnancy					
Yes	28	11.17±3.39	9.35±1.92	5.71±2.08	29.86±6.49
No	387	10.38±3.78	8.75±2.52	5.83±1.98	27.87±7.68
<i>Test* and p</i>		Z=-1.088 p= .276	Z=-1.040 p= .298	Z=-.261 p= .794	Z=-1.299 p= .194
Parity					
Primiparous	191	9.27±3.51	8.06±2.44	5.25±1.85	25.44±6.96
Multiparous	224	11.43±3.68	9.41±2.37	6.32±1.98	30.90±7.49
<i>Test* and p</i>		Z= -5.858 p= .000	Z= -5.703 p= .000	Z=-5.880 p= .000	Z=-6.279 p= .000
Type of previous birth (n=224)					
Normal birth	111	10.25±3.69	8.54±2.35	5.27±1.93	26.91±7.25

Cesarean section	116	12.59±3.28	10.26±2.06	7.35±1.39	33.41±6.24
Test* and p		Z=-4.733 p= .000	Z=-5.3652 p= .000	Z=-8.641 p= .000	Z=-6.517 p= .000
Previous birth experience					
Positive	188	11.44±3.60	9.56±2.26	6.35±1.92	30.45±7.16
Negative	54	10.77±3.88	8.92±2.42	5.94±2.05	28.31±7.92
Test* and p		Z= -1.143 p= .253	Z= -1.881 p= .060	Z= -1.275 p= .202	Z=-1.776 p= .076
Presence of a support person during pregnancy					
Yes	399	10.46±3.77	8.77±2.50	5.79±1.99	27.96±7.68
No	16	9.93±3.45	9.25±2.26	6.62±1.78	29.00±6.02
Test* and p		Z=-.573 p= .567	Z=-.683 p= .494	Z=-.1706 p= .088	Z=-.440 p= .638
Receiving education about birth					
Yes	155	10.13±3.64	8.94±2.40	5.67±1.87	27.79±7.18
No	260	10.62±3.82	8.70±2.54	5.91±2.06	28.13±7.88
Test* and p		Z=-1.279 p= .201	Z=-.949 p= .343	Z=-1.558 p= .119	Z=-.536 p= .592

*The Mann-Whitney U test, **Kruskal Wallis test

Table 5. Predictors of labour worry in pregnant women

	B	Std. Error	β	p
(Constant)	28.308	4.274		0.000
Pregnant woman's age	-0.018	0.108	-0.013	0.866
Planned pregnancy status	2.718	1.033	0.176	0.009
Planned birth type	-1.745	2.440	-0.116	0.475
Risk in current pregnancy	0.592	1.032	0.037	0.567
Presence of chronic disease	-0.487	1.511	-0.020	0.748
Infertility treatment for pregnancy	2.336	2.579	0.059	0.366
Type of previous birth	-5.390	2.363	-0.361	0.024
Being a support person during pregnancy	-2.788	1.205	-0.149	0.022
Number of live births	-1.350	0.991	-0.152	0.175
Number of pregnancies	0.938	0.712	0.133	0.190
Income level	-1.932	2.654	-0.046	0.468
Education	0.875	1.335	0.045	0.513
Pregnancy week	0.119	0.081	0.096	0.145

[R=0.511, R²=0.261, F=4,637 p=0.000]

Discussion

In this study, which was conducted to determine pregnant women's labour and birth worry and affecting factors, it was found that worry about labour was in medium level. While some studies conducted in Türkiye stated that pregnant women experienced a "medium" level of worry (Ust & Pasinlioglu, 2015; Aksoy & Ozenturk, 2016), other studies found that birth anxiety was higher, unlike the findings of this study (Uslu Yuvaci et al., 2020; Aksoy & Ozenturk, 2016; Donmez et al., 2014). Dennis et al. stated that prenatal worry is common (Dennis et al., 2017). In our study, it was found that the worry about labour of pregnant women regarding the "Labour pain and distress", "pre-labour uncertainty" and "interventions" sub-dimensions was close to the medium level (Table 2). Uncertainty about labour, interventions during birth, and labour pain and distress experienced during labour are important factors that increase the level of worry. In Aksoy's study (Aksoy & Ozenturk, 2016), it was found that the level of concern regarding the OWLS sub-dimensions was higher than in our study. Kose et al.'s study, the most worry is reported in the "birth act" sub-dimension and the least worry is in the "C-section" sub-dimension (Kose & Pasinlioglu, 2018). In Blackmore et al. reported that the highest level of anxiety was "concerns about the baby" (Blackmore et al., 2016). Uslu Yuvaci et al. (2020)'s study, the mean score of the sub-dimensions is similar to our study except for "pre-labour uncertainty". Zengin et al. (2021) found that the worry level of pregnant women in the "pre-labour concerns" and "concerns about labour" sub-dimensions was at a medium level. In the studies in the literature, the level of anxiety regarding labour was found to be similar to our study.

In this study, primiparous pregnant women had higher worry about labour and birth than multiparous pregnant women ($p < 0.05$). Since birth is an unknown process, the experience of being pregnant for the first time can be worrying for women (Uslu Yuvaci et al., 2020). The high level of anxiety felt during pregnancy can affect the woman's ability to cope with birth (Maimburg et al., 2013). Additionally, negative stories about birth from the social environment can increase

anxiety (Aksoy & Ozenturk, 2016). In our study, the feeling of unknown in women giving birth for the first time. It is thought that the level of anxiety is high due to this reason and this situation will increase the rate of cesarean section. The inconsistency between women's expectations from birth and their experiences may cause them to prefer cesarean delivery (Fuglenes et al., 2012). In previous studies, it was found that the level of anxiety was higher in primiparous pregnant women, similar to this study (Kucukkaya et al., 2018; Ust & Pasinlioglu, 2015; Penacoba-Puente et al., 2011). Fuglenes et al. (2012) conducted in Norway to investigate the mother's influence on the choice of cesarean birth, it was stated that the desire for cesarean section was higher in women who will have their first birth with a normal birth and who have had a normal birth (Fuglenes et al., 2012). In a study conducted by Aslan and Okumus (2017) in our country, primiparous It was found that 60% of pregnant women had a cesarean section due to the high level of anxiety they experienced during birth (Aslan & Okumus, 2017). In a study conducted in the Netherlands, anxiety was associated with pain in primiparous pregnant women and with cesarean section in multiparous pregnant women. In this study, the level of anxiety was found to be higher in multiparous women (Koelewijn et al., 2017). The reason for this is thought to be related to the previous birth experience of multiparous women. It has been determined that the studies conducted and our study have parallel results.

In our study, it was found that pregnant women who planned to have a normal birth in their current pregnancy experienced more birth anxiety (Table 4). It is thought that pregnant women who are planning a normal birth have higher birth anxiety due to the knowledge that normal birth is more painful, the fear of harm to the baby, and the transfer of negative experiences. In their study, Ust and Pasinlioglu (2015) found that birth anxiety was higher in pregnant women who planned to have a normal birth, similar to the findings of this study (Ust & Pasinlioglu, 2015). In a concept analysis conducted to examine pregnancy-related anxiety, birth was listed among the most frequently stated

causes of anxiety (Bayrampour et al., 2016). In a study, normal birth anxiety was higher. It has been found that the mother's lack of confidence in giving birth and the increased level of anxiety due to the fear of harm to the baby increase the desire for a cesarean section (Romero et al., 2012). While the type of birth can affect birth anxiety, birth anxiety can also affect birth preference. In particular, the fact that normal birth increases the level of anxiety may affect the choice of cesarean delivery. According to the latest data of the World Health Organization (WHO), 18.6% of all births worldwide are performed by cesarean section (WHO, 2018). In Türkiye, according to the Türkiye Demographic and Health Survey (2018) data, 52% of all births occur by cesarean section. The high number of unplanned cesarean deliveries in Türkiye indicates that the majority of cesarean deliveries are optional and not mandatory. Even if a normal delivery is planned, after the onset of labour, the decision to have a cesarean section may be taken due to both medical reasons and the woman's fear of childbirth. In Türkiye, it is reported that women are mostly concerned about labour and the postpartum period (Aslan & Okumuş, 2017). In another study, the most important source of fear was reported to be the mode of delivery and the delivery process (Matinnia et al., 2015) and the most common reasons for preferring cesarean section were the lack of pain (Storksén et al., 2015; Ozer & Erbay, 2017) and finding cesarean section safer (Yanikkerem & Cimen, 2017). In the literature, there are studies indicating that the level of anxiety affects the mode of delivery, as well as studies indicating that anxiety has no effect on the mode of delivery (Uslu Yuvaci et al., 2020; Henderson & Redshaw, 2016). In these studies, it is thought that the level of anxiety does not affect the mode of delivery due to the condition of the pregnant woman and hospital conditions. In our study, it was found that the planned mode of delivery affected the level of anxiety and was consistent with the literature.

In this study, it was observed that women who had previously given birth normally experienced higher levels of labour worry than women who had given birth by cesarean section (Table 4). According to the results of the regression analysis, it was found that the

most important variable predicting the labour anxiety of pregnant women was the type of previous delivery (Table 5). It is thought that the negative experiences of the pregnant women in their previous births and the fact that the first birth was longer and more painful caused women who had a normal delivery to have a higher level of anxiety. In a study conducted by Aslan and Okumuş (2017), it was emphasized that the rate of pain felt in labour being higher than expected was higher in women who had normal delivery (83.9%) than in women who had cesarean delivery, and that women found normal delivery more painful and experienced pain above what they expected (Aslan & Okumus, 2017). Similar to the findings of this study, while some studies found that the lowest level of anxiety was related to cesarean delivery (Kucukkaya et al., 2018; Köse & Pasinlioglu, 2018), other studies found that contrary to the findings of this study, the level of anxiety was higher in women with previous cesarean delivery (Schaal et al., 2019; Cankaya & Yilmaz, 2020).

In a qualitative study conducted by Amanak and Unay (2020), it was found that pregnant women experienced a lot of anxiety about childbirth and that the mode of delivery was among the factors causing anxiety in pregnant women (Amanak & Unay 2020). In the study conducted by Donmez et al. (2014), it was found that there was no difference between normal delivery and cesarean delivery in terms of prenatal anxiety level (Donmez et al., 2014). Another result obtained in this study according to regression analysis was that whether the pregnancy was planned or not and having a support person were found to be variables predicting labour anxiety (Table 5). In a qualitative study, it is stated that social support helps pregnant women to reduce their anxiety level and cope with negative feelings towards childbirth (Amanak & Unay, 2020). In the study of Gulec et al. (2014), it is stated that as the social support of pregnant women increases, their fear of childbirth decreases (Gulec et al., 2014). When the anxiety levels of pregnant women were examined in some studies, it was found that lack of support from the partner was the factor that least affected the anxiety level of pregnant women

(Kucukkaya et al., 2020; Ust & Pasinlioglu, 2015; Zengin et al., 2021).

In the study of Ust & Pasinlioglu, (2015), it was found that the presence of social support and planned pregnancy did not affect the anxiety of childbirth. It is stated that the education given during pregnancy will reduce the level of anxiety about childbirth (Uslu Yuvaci et al., 2020; Amanak & Unay, 2020). In a study by Ozcan and Aslan (2015), it was emphasized that women who gave birth normally did not feel comfortable and experienced birth anxiety because they were not sufficiently informed about the birth process. Studies have reported that a comprehensive prenatal education reduces birth anxiety (Uslu Yuvaci et al., 2020; Amanak & Unay, 2020; Yuksel et al., 2015), and the desire for cesarean delivery (Ozer & Erbay, 2017; Yuksel et al., 2015).

Limitations of the study: Since the study was conducted in a single hospital, the study results are limited to the pregnant women participating in this study and cannot be generalized to the entire population.

Conclusion: As a result of the study, pregnant women's birth and labour concerns were close to medium level. Pregnant women being primiparous, having previously experienced normal birth, and planning a normal birth in their current pregnancy increase their anxiety about birth. Previous delivery type, whether the pregnancy was planned or not, and having a support person are important predictors of anxiety during pregnancy. It is thought that education alone is not sufficient to reduce birth anxiety and it is important to make a plan by investigating the reasons that increase the level of anxiety. It is recommended that health professionals be aware of the pregnant woman's birth anxiety, listen to the pregnant woman's wishes, give birth-related information and counseling, make necessary interventions in the prenatal period, evaluate the birth anxiety level, identify the reasons that increase the anxiety level, and give more importance to these issues in prenatal training. In addition, it is thought that it is important to prepare prenatal education specifically for the individual and the needs of primiparous pregnant women, who have had a normal birth before or are about to give birth. It is

thought that conducting qualitative research to reduce the level of anxiety during pregnancy will make significant contributions to the literature.

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