

The affecting factors of childbirth fear for pregnant women admitted to a health center and university hospital in Turkey

Childbirth fear
of pregnant
women

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Abstract

Purpose – Fear of birth may cause perinatal complication, increased risk of intervention and need for analgesia, delayed mother–infant attachment process and deterioration of spouse relationship. The purpose of this study was to determine the affecting factors and childbirth fears of Turkish pregnant women.

Design/methodology/approach – This is a descriptive research type. The sample of this study consisted of 78 pregnant women who met the inclusion criteria and agreed to participate in this study. This study was carried out in a family health center and university hospital in a city in Turkey. Data were collected with Personal Information Form and Wijma Expectancy/Experience Scale-A Version (W-DEQ A).

Findings – The mean scores of pregnant women from W-DEQ A version were 75.60 ± 9.48 . In 65.4% of pregnant women, fear of severe birth, 20.5% fear of clinical birth and 14.1% of children had a fear of moderate birth. W-DEQ A version, the third trimester, unplanned pregnancies, lack of knowledge of the level of inadequate birth and more than eight pregnancies in pregnancy, the total score of pregnant women was found to be higher ($p < 0.05$).

Research limitations/implications – The limitation of this study is its small sample size. Further studies with larger sample sizes are needed.

Practical implications – It was determined that one-fifth of the sample group experienced birth fear at the clinical level and childbirth fear level is associated with unplanned pregnancies, lack of knowledge. In antenatal period, the pregnant woman should be encouraged to express her feelings and thoughts about the labor and give information about the labor.

Social implications – Cognitive and behavioral education programs can be structured to cope with fear of birth for pregnant women at risk.

Originality/value – This research is original. This study presents data on Turkish women. The data can also be used to evaluate intercultural differences.

Keywords Childbirth, Fear of birth, Pregnant women, Turkey

Paper type Research paper

Introduction

The birth process presents women with many risks during pregnancy and delivery but also during the postpartum period [1]. Birth and the birthing process is often a cause for anxiety and increasingly requires intervention. Women prefer to hand over responsibility to healthcare professionals rather than trust their bodies and the natural birthing process. As a



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result, interventional vaginal delivery and cesarean section rates are increasing [2, 3]. Factors causing the fear of childbirth are diverse. Many reasons such as low-income level, lack of social support, lack of trust in healthcare professionals, being alone in a different environment, concerns about the infant's health during the pregnancy period, concerns about postnatal breastfeeding, having a cesarean section and fear of pain increase the fears of a pregnant woman [4–8].

Fear of childbirth can cause many problems such as complications of pregnancy and labor, increased use of analgesia during labor, increased birth interventions, urgent and voluntary cesarean sections, postpartum depression, post-traumatic stress disorder, delay in maternal–infant attachment and deterioration in spousal relations [4]. Additionally, women who experience fear of childbirth during the antenatal period are at greater risk in terms of negative effects that may develop between the mother and infant after delivery. Fear of pain at birth and the fear of failing to get help in case of having pain may be an early predictor of pain and stress during labor. The fear of childbirth observed in the third trimester of pregnancy can also increase the risk of an urgent cesarean section [9].

The aim of interventions for women experiencing fear of childbirth is to support the pregnancy and to control the concerns related to pregnancy and labor. For this purpose, many approaches such as psychoprophylaxis, hypnosis, cognitive-behavioral change-oriented therapeutic interventions and counseling interventions are used. In order to prevent negative effects of the fear of childbirth on the woman/fetus/newborn/family, the support of healthcare services by a multidisciplinary team including nurses, midwives, psychologists, psychiatrists, obstetricians and gynecologists provides useful results. Professional support given by a multidisciplinary team during pregnancy and childbirth may develop a sense of control and confidence and can help a pregnant woman to cope with the fear of childbirth and prevent negative experiences [10]. In order to provide the most effective and efficient care and support, it is necessary to objectively identify the cause of fear for pregnant women in receipt of care related to their impending labor. This study aims to determine the childbirth fear status of Turkish pregnant women and the factors related to the fear of childbirth.

Methodology

Sample

This study was conducted as a descriptive research type. There are 29 family health centers in the city center of Sivas. Within the scope of this study, one of these family health centers, the Sivas Orhangazi Family Health Center, was chosen by simple random sampling methodology. The Cumhuriyet University Research and Application Hospital in the city was selected as another study center. The population of this study consisted of the pregnant women who attended the abovementioned institutions and were in the last trimester of their pregnancy between March and July 2018. The study sample consisted of 78 pregnant women who met the inclusion criteria and agreed to participate in this study.

Data collection tools

The research data were collected using a Personal Information Form and the “Wijma Delivery Expectancy/Experience Questionnaire Version-A (W-DEQ A)”.

Personal Information Form: This was prepared by the researchers to determine the sociodemographic and obstetric characteristics of the pregnant women involved in this study. The form consisted of 12 open-ended and 26 close-ended items.

Wijma Delivery Expectancy/Experience Questionnaire Version-A (W-DEQ A): The Turkish adaptation of the Wijma Delivery Expectancy/Experience Questionnaire Version-A developed by Wijma *et al.* aimed to determine the level of pregnant women's fear of childbirth as previously conducted by Korukcu *et al.* [11, 12]. W-DEQ A version is a scale with

33 items. The responses in the scale are numbered from 0 to 5 on a 6-point Likert scale. While 0 was referred to as “completely”, 5 was referred to as “never”. The minimum score was 0 on the scale whereas the maximum score was 165. A high total item score indicated a high level of fear. The cut-off value was 85 points.

- (1) W-DEQ score of ≤ 37 points referred to fear at a mild level,
- (2) W-DEQ score of 38–65 points referred to fear at a moderate level,
- (3) W-DEQ score of 66–84 points referred to fear at a severe level,
- (4) W-DEQ score of ≥ 85 points referred to a clinical level of fear.

Negatively loaded questions in the scale (2, 3, 6, 7, 8, 11, 12, 15, 19, 20, 24, 25, 27, 31) were calculated reversely to provide adaptation in the measurement. The Cronbach's alpha value of the scale was 0.88 for primiparous pregnant women and 0.90 for multiparous pregnant women. In this study, the Cronbach's alpha value obtained from the scale was determined as 0.86.

Data analysis

The coding and evaluation of the data were carried out in SPSS 22.0 for Windows packaged software. In addition to descriptive statistical methods (number, percentage, mean, standard deviation), Pearson product-moment correlation analysis, significance test of the difference between two means (*t*-test) and ANOVA test were used in the assessment of the data. The results were evaluated at a confidence interval of 95% and a significance level of $p < 0.05$.

Ethical consideration

Before commencing on the study, approval from the Non-invasive Clinical Trials Ethics Committee (2018-02/60) and written permission from the Provincial Health Directorate were obtained. Then, the pregnant women who applied to the study centers and met the inclusion criteria of the study were informed about the purpose of the study and their consent was obtained. It was explained that the data would be published for scientific purposes without stating names. Data collection tools were applied by the researcher to the pregnant women who agreed to participate in the study. A consent form was completed by all participants.

Results

Sociodemographic characteristics of the pregnant women

The mean age of the pregnant women participating in the present study was 27.18 ± 4.93 . Of all the pregnant women, 38.5% of them had a high school and above education level and 9% described their income status as “low”. All of the pregnant women had health insurance and 85.9% of them lived as a nuclear family; 35.9% of the pregnant women stated that they did not receive social support and 16.7% stated that they were smokers (Table 1).

Obstetric characteristics of the pregnant women

It was found that the mean gestational week of the pregnant women was 30.28 ± 4.9 and 65.4% of them were in the third trimester; 19.2% of the pregnancies were unplanned. The mean gravida number of the pregnant women was 2.24 ± 1.27 , 6.4% had a history of curettage, and 24.4% had a history of abortion. Of all the pregnant women, 32.1% of them had experienced their first pregnancy and all of them had commenced taking prenatal care from the first trimester. The pregnant women started to receive prenatal care in any health institution at a mean of 10.15 ± 4.88 times during their current pregnancy. The pregnant women utilizing prenatal care services received knowledge from healthcare personnel on

Table 1.
Sociodemographic
characteristics of
pregnant
women ($n = 78$)

| Characteristics | n (%) |
|--|--------------|
| <i>Age group (n = 78)</i> | |
| 20-24 | 29 (37.2) |
| 25-29 | 20 (25.6) |
| ≥30 age | 29 (37.2) |
| <i>The mean age</i> | 27.18 ± 4.93 |
| <i>Education status (n = 78)</i> | |
| Elementary school and below | 48 (61.5) |
| High school and above | 30 (38.5) |
| <i>Income status (n = 78)</i> | |
| Good | 27 (34.6) |
| Middle | 44 (56.4) |
| Low | 7 (9.0) |
| <i>Family type (n = 78)</i> | |
| Nuclear family | 67 (85.9) |
| Extended family | 11 (14.1) |
| <i>Perceived social support (n = 78)</i> | |
| Yes | 50 (64.1) |
| No | 28 (35.9) |
| <i>Smoking (n = 78)</i> | |
| Yes | 13 (16.7) |
| No | 65 (83.3) |

three main subjects, namely, postpartum contraception (87.2%), preparation (83.3) and physical changes during pregnancy (83.3). Of all the pregnant women, 57.7% of them found their knowledge level about pregnancy to be “insufficient” and 39.7% of them found their knowledge level about childbirth to be “insufficient”. Among the sources from which the pregnant women obtained knowledge about childbirth, friends (97.4%), relatives (93.6%) and newspapers/books/magazines (92.3%) were the most frequent responses (Table 2).

Scale mean scores of the pregnant women

The W-DEQ A Version mean scores of the pregnant women were 75.60 ± 9.48 . Of all the pregnant women, 65.4% of them had severe levels of childbirth fear, 20.5% had clinical levels of childbirth fear and 14.1% had moderate levels of childbirth fear (Tables 3 and 4).

Scale total mean score according to some characteristics of the pregnant women

No statistically significant difference was found between the W-DEQ A Version total mean scores in terms of the age groups, educational level, income level and getting social support in the current pregnancy ($p > 0.05$). Besides, the W-DEQ A Version total mean scores of the pregnant women who were in the third trimester and recorded that theirs was an unplanned pregnancy, found their knowledge level about labor insufficient, and that pregnancy monitoring ≥ 8 times before the birth was found to be high ($p < 0.05$) (Table 5).

Correlation scale total mean score according to some characteristics of the pregnant women

A statistically significant positive correlation was found between the scores of the pregnant women from W-DEQ A Version and the number of pregnancy follow-ups, number of gravidae, number of parity and the gestational week ($p < 0.05$). As the numbers of pregnancy

| Obstetric characteristics | <i>n</i> (%) | Childbirth fear of pregnant women |
|---|--------------|---|
| <i>Pregnancy Trimester</i> | | |
| 1. Trimester | — | |
| 2. Trimester | 27 (34.6) | |
| 3. Trimester | 51 (65.4) | |
| <i>Gestational week mean</i> | 30.28 ± 4.9 | 393 |
| <i>Planned status of pregnancy</i> | | |
| Planned | 63 (80.8) | |
| Unplanned | 15 (19.2) | |
| <i>Getting prenatal care</i> | | |
| 1. Trimester | 78 (100.0) | |
| <i>Number of follow-ups in pregnancy</i> | | |
| <8 times | 30 (38.5) | |
| ≥8 times | 48 (61.5) | |
| <i>Topics of interest*</i> | | |
| Postpartum contraception | 68 (87.2) | |
| Preparation for childbirth | 65 (83.3) | |
| Physical changes in pregnancy | 65 (83.3) | |
| Emotional changes in pregnancy | 63 (80.8) | |
| Newborn care | 62 (79.5) | |
| Exercise during pregnancy | 62 (79.5) | |
| Fetus growth and development | 56 (71.8) | |
| Breastfeeding counseling | 55 (70.5) | |
| Signs of danger in pregnancy | 37 (47.4) | |
| Nutrition in pregnancy | 20 (25.6) | |
| <i>Sufficient finding of knowledge level about pregnancy</i> | | |
| Sufficient | 26 (33.3) | |
| Insufficient | 45 (57.7) | |
| Partially sufficient | 7 (9.0) | |
| <i>Sufficient finding of knowledge level about childbirth</i> | | |
| Sufficient | 20 (25.6) | |
| Insufficient | 31 (39.7) | |
| Partially sufficient | 27 (34.6) | |
| <i>Sources of knowledge about childbirth*</i> | | |
| Friends | 76 (97.4) | |
| Relatives (mother, neighbor, etc.) | 73 (93.6) | |
| Newspaper/book/magazine | 72 (92.3) | |
| Health professionals | 63 (80.8) | |
| Internet/television | 62 (79.5) | |
| Note(s): *It was determined according to the statement of the pregnant woman; multiple options marked, percentages were taken over “n” | | Table 2. Obstetric characteristics of pregnant women (<i>n</i> = 78) |

| | Scale min–max score | Study min–max score | m (sd) | Table 3. W-DEQ A Version total score mean of pregnant women (<i>n</i> = 78) |
|--|---------------------|---------------------|--------------|--|
| W-DEQ A* | 0–165 | 51–93 | 75.60 ± 9.48 | |
| Note(s): *W-DEQ A: Wijma Delivery Expectancy/Experience Questionnaire Version A | | | | |

follow-up, gestational week, gravida and parity increased, the childbirth fear increased, as well (Table 6).

Discussion

Fear of childbirth is an important issue that requires closer attention because of its relationship with pregnancy complications, poor birth experience and postpartum emotional problems [4]. Fear of childbirth adversely affects maternal/fetal/neonatal health [13]. The W-DEQ A Version total mean score of the pregnant women participating in the present study was 75.60 ± 9.48. Women having a W-DEQ A score of 66–84 are considered to have severe levels of childbirth fear. According to this result, it was determined that the women included in the present study experienced a severe level of childbirth fear.

It was determined that the childbirth fears of the women who were in the present study and were in the third trimester of pregnancy were higher ($p < 0.05$). The result found in the study by Sen *et al.* indicating that 62.5% of the women in the last trimester experienced fear of childbirth supports the result of the present study [14]. Research shows that women focus on pregnancy in the first trimester, the infant in the second trimester and delivery in the third trimester [15]. Furthermore, anxiety levels increase during the third trimester of pregnancy [8]. It was found that as the numbers of gravida and parity of the pregnant women participating in the present study increased, the fear of childbirth also increased ($p < 0.05$). Similar to the result of the present study, Sahin *et al.* found in their study that the fear of childbirth increased statistically as the number of parity of the pregnant women increased [16]. Experiencing negative events by multiparous pregnant women from their previous pregnancies caused them to experience fear of childbirth [15, 17]. It was determined as a result of the study conducted by Mazúchová *et al.* that childbirth fear of primiparous pregnant women was higher compared to multiparous women [18]. High levels of fear in primiparous pregnant women can be attributed to the fear of the unknown.

The childbirth fear of pregnant women who found their knowledge levels about labor to be insufficient was found to be high in the present study ($p < 0.05$). Soltani *et al.* determined that women who did not have enough knowledge about labor experienced more fear of childbirth which supports the result of the present study [19]. It has been determined in the literature that the training given during the prenatal period reduces the fear of childbirth of pregnant women [20, 21]. Reducing the fear of the unknown can be achieved by increasing the level of knowledge on the subject. The knowledge given by the healthcare personnel in the prenatal period in accordance with the needs of the pregnant women contributes to the reduction of their fear levels [22].

Prenatal care (PNC) involves the monitoring of the mother and fetus by a trained health worker at regular intervals throughout the pregnancy while providing necessary examinations and recommendations. The main objective of the PNC process is to ensure that expectant mothers experience a healthy pregnancy and give birth to healthy babies [23]. In the pregnancy follow-up standardized by the Ministry of Health in the content of “Safe Motherhood”, at least four follow-ups were accepted for all pregnant women who were not in the at risk category [24]. Periodic follow-up and examinations during the pregnancy period provides unique opportunities for healthcare professionals to reach pregnant women. With

Table 4.
Birth fear according to W-DEQ A Version score of pregnant women ($n = 78$)

| W-DEQ A* | Light (≤ 37) <i>n</i> (%) | Moderate (38–65) <i>n</i> (%) | Severe (66–84) <i>n</i> (%) | Clinical (≥ 85) <i>n</i> (%) |
|---------------|-------------------------------------|----------------------------------|--------------------------------|--|
| Fear of birth | 0 (0) | 11 (14.1) | 51 (65.4) | 16 (20.5) |

Note(s): *W-DEQ A: Wijma Delivery Expectancy/Experience Questionnaire Version A

| Characteristics | W-DEQ A* m (sd) | t / F | p | Childbirth fear of pregnant women | |
|---|-----------------|-------|-------|-----------------------------------|--|
| <i>Sociodemographic characteristics</i> | | | | | |
| <i>Age groups</i> | | | | | |
| 20–24 age (n = 29) | 75.51 ± 9.40 | 0.949 | 0.392 | 395 | |
| 25–29 age (n = 20) | 77.90 ± 10.06 | | | | |
| ≥30 age (n = 29) | 74.10 ± 9.17 | | | | |
| <i>Education status</i> | | | | | |
| Elementary and below (n = 48) | 76.66 ± 10.48 | 1.258 | 0.212 | | |
| High school and above (n = 30) | 73.90 ± 7.45 | | | | |
| <i>Income status</i> | | | | | |
| Good (n = 27) | 74.85 ± 7.85 | 0.171 | 0.843 | | |
| Medium (n = 44) | 75.84 ± 11.06 | | | | |
| Low (n = 7) | 77.00 ± 2.00 | | | | |
| <i>Perceived social support</i> | | | | | |
| Sufficient (n = 50) | 75.18 ± 10.36 | 0.523 | 0.602 | | |
| Insufficient (n = 28) | 76.35 ± 7.78 | | | | |
| <i>Obstetrical characteristics</i> | | | | | |
| <i>Pregnancy trimester</i> | | | | | |
| 2. Trimester (n = 27) | 72.96 ± 7.90 | 1.815 | 0.043 | | |
| 3. Trimester (n = 51) | 77.00 ± 10.01 | | | | |
| <i>Pregnancy follow-up</i> | | | | | |
| <8 times | 71.30 ± 8.08 | 3.375 | 0.001 | | |
| ≥8 times | 78.29 ± 9.37 | | | | |
| <i>Planned status of pregnancy</i> | | | | | |
| Planned (n = 63) | 75.49 ± 9.89 | 1.210 | 0.035 | | |
| Unplanned (n = 15) | 78.06 ± 7.79 | | | | |
| <i>Sufficient finding of knowledge level about pregnancy</i> | | | | | |
| Sufficient (n = 26) | 73.88 ± 8.99 | 0.637 | 0.532 | | |
| Insufficient (n = 45) | 76.42 ± 9.17 | | | | |
| Partially sufficient (n = 7) | 76.71 ± 13.43 | | | | |
| <i>Sufficient finding of knowledge level about childbirth</i> | | | | | |
| Sufficient (n = 20) | 71.15 ± 8.45 | 4.011 | 0.022 | | |
| Insufficient (n = 31) | 78.77 ± 9.67 | | | | |
| Partially sufficient (n = 27) | 75.70 ± 9.06 | | | | |
| Note(s): *W-DEQ A, Wijma Delivery Expectancy/ Experience Questionnaire Version A | | | | | |

Table 5. W-DEQ A Version total score mean of pregnant women according to some characteristics (n = 78)

| Characteristics | r ^a | W-DEQ A* | P |
|--|----------------|----------|-------|
| Pregnancy follow-up | 0.246 | | 0.030 |
| Gravida | 0.239 | | 0.035 |
| Parity | 0.329 | | 0.003 |
| Gestational week | 0.352 | | 0.002 |
| Note(s): *W-DEQ A, Wijma Delivery Expectancy/Experience Questionnaire Version A; ^a Pearson's correlation coefficient | | | |

Table 6. Correlation of W-DEQ A Version total mean scores with some characteristics of pregnant women

adequate health training provided during these follow-ups, pregnant women can be supported and strengthened at the determined subjects and the points they need. Training that includes support in determining the fear and concerns of pregnant women about childbirth and preparing them for labor can result in a more positive pregnancy and birth experience. However, it was found in this study that the fear of childbirth of pregnant women increased as the frequency of prenatal follow-ups increased ($p < 0.05$). The study conducted by Keklikci supports the results of the present study where pregnant women with high fear of childbirth had also experienced more doctor, nurse and midwife examinations [25]. Based on this data, it can be deduced that healthcare professionals do not effectively implement their health training roles and do not offer supportive care initiatives to reduce the concerns/fears of pregnant women. Moreover, it was determined in the present study that pregnant women with unplanned pregnancies experience higher levels of fear of childbirth ($p < 0.05$).

Conclusion

Fear of birth is a condition that prevents the attachment of the mother–baby, adversely affecting pregnancy, labor and the postpartum processes. In the antenatal period, the pregnant woman should be encouraged to express her feelings and thoughts about the labor and receive care and support about the labor and postdelivery process.

Limitations

The limitation of this study was its small sample size. Further studies with larger sample sizes would be beneficial in order to conduct a more detailed analysis.

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