



Original Article / Araştırma Makalesi

## The Relationship Between Pregnant Women's Birth Beliefs and Traumatic Birth Perception Levels, Birth Outcomes and Postpartum Depression\*

### Gebelerin Doğum İnançları ile Travmatik Doğum Algı Düzeyleri, Doğum Sonuçları ve Doğum Sonu Depresyon Görülme Durumları Arasındaki İlişki

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#### ABSTRACT

**Introduction:** From the beginning of pregnancy, pregnant women think about their birth and the birth is shaped according to the birth belief of the person.

**Objective:** This study aims to determine the relationship between the birth beliefs of pregnant women and birth outcomes, traumatic birth perception levels and postpartum depression.

**Materials and Methods:** This cross-sectional study was conducted in a province in eastern Türkiye. The data was collected using the Personal Information Form, Birth Beliefs Scale, Traumatic Birth Perception Scale, and Edinburgh Postpartum Depression Scale.

**Results:** While there was no significant difference between the medical birth beliefs of women according to their descriptive characteristics ( $p>0.5$ ), those who were at 28-36 weeks of gestation, who did not have a curettage, and those who went to pregnancy control  $\geq 4$  times, considered the birth more natural ( $p<0.05$ ). While there was a positive and significant relationship between Natural Process Belief and Postpartum Depression ( $r=0.116$ ,  $p=0.009$ ), the regression model (stepwise) was also found to be significant ( $F=6.944$ ,  $p=0.009$ ).

**Conclusion:** The study determined a positive and significant relationship between natural birth belief and postpartum depression, and the regression model established between these two was significant.

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#### ÖZET

**Giriş:** Gebeliğin başından itibaren, gebeler doğumunun nasıl olacağını düşünür ve doğum, kişinin doğum inancına göre şekillenir.

**Amaç:** Bu çalışmanın amacı gebelerin doğum inançları ile travmatik doğum algı düzeyleri, doğum sonuçları ve doğum sonu depresyon görülme durumları arasındaki ilişkiyi belirlemektir.

**Gereç ve Yöntem:** Kesitsel tür şeklinde tasarlanan bu çalışma, Türkiye'nin doğusundaki bir ilde yürütüldü. Verilerin toplanmasında Tanıtıcı Bilgi Formu, Doğum İnançları Ölçeği, Travmatik Doğum Algısı Ölçeği, Edinburgh Postpartum Depresyon Ölçeği kullanıldı.

**Bulgular:** Kadınların tanıtıcı özelliklerine göre tıbbi doğum inançları arasındaki farkın önemli olmadığı belirlenirken ( $p>0,05$ ); 28-36 gebelik haftasında olanların, küretaj yapmayanların,  $\geq 4$  kez gebelik kontrolüne gidenlerin doğumu daha doğal gördükleri belirlendi ( $p<0,05$ ). Doğal Süreç İnancı ile Doğum Sonrası Depresyon arasında pozitif yönde ve anlamlı ilişki bulunurken ( $r=0,116$ ,  $p=0,009$ ) aynı zamanda kurulan regresyon modelinin de (stepwise) anlamlı olduğu belirlendi ( $F=6,944$ ,  $p=0,009$ ).

**Sonuç:** Çalışma sonucunda, doğal doğum inancı ile doğum sonu depresyon arasındaki pozitif yönde anlamlı ilişki olduğu ve bu ikisi arasında kurulan regresyon modelinin anlamlı olduğu belirlendi.

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#### 1. Introduction

Socio-cultural beliefs are the concepts that include morality, religious belief, a sense of justice, and traditions and customs, which

are transferred to the next generation, and affect people's health behaviours. While individuals can develop positive health behaviours with their society, they can also develop dysfunctional

health behaviours (1). In the belief that birth is medical, it is indicated that birth is dangerous and risky, and labour pain should be treated medically (2). Women may have a similar belief. The woman may consider birth natural but prefer medical birth to give birth safely. Many factors play a role in the perception of birth as a natural or medical process. The person's social environment, cultural beliefs, previous birth, and obstetric history are some factors (2, 3). Traumatic birth experiences may cause the woman to fear labour and request a cesarean section (4). The woman who perceives birth as traumatic may be stressed, angry and depressed (5). Dysfunctional health beliefs can be transformed into functional health beliefs by an appropriate intervention technique. It is important to develop preventive health behaviours towards health beliefs that are at risk of experiencing health problems and may have serious consequences (6). Factors, such as fear of childbirth, traumatic birth perception, and fear of experiencing pain at birth, may affect the pregnant woman's daily life, social relations, and birth outcomes (7-9). In this context, it is important to determine the dysfunctional birth beliefs and the related factors and outcomes of pregnant women in terms of planning preventive health behaviours and providing prenatal care services (5).

This study aimed to determine the relationship between pregnant women's birth beliefs and traumatic birth perception levels, birth outcomes, and postpartum depression.

## 2. Materials and Methods

### 2.1. Collection of Research Data:

This cross-sectional study was conducted in a hospital in Malatya, located in eastern Türkiye, between December 2021 and March 2022. The sample size was calculated using the sample calculation of the known universe in the OpenEpi version 3 statistical software (<http://www.openepi.com>). In the power analysis, the sample size was calculated to be at least 456 with a margin of error of 5%, a confidence interval of 95%, a representative power of 0.80, and a two-way significance level. The study was completed with 540 pregnant women. Pregnant women who were able to communicate, who were at 28-41 weeks of gestation, whose mother tongue was Turkish, who had a healthy pregnancy and fetus, who were not diagnosed with depression during pregnancy and pre-pregnancy period, and who did not receive any treatment for a psychiatric disease were invited to the study. Twenty-six women who could not be contacted postpartum were excluded from the study. The study was completed with 514 women who agreed to participate and were contacted during the postpartum period.

The data were collected in two stages: During pregnancy and postpartum. In the first stage, pregnant women admitted to the Obstetrics and Gynecology Polyclinics in the hospital, from which the institution permission was obtained, were invited to the pregnant training class so that the data could be collected in a quiet and calm environment. Using the face-to-face interview technique in the Pregnant Information Class, the section of the Personal Information Form containing demographic and obstetric information, the BBS, and the STCP were applied to the pregnant women, and their contact numbers were obtained to reach the same women after giving birth. In the first stage, data collection lasted for 15-20 minutes. In the second stage, pregnant women were searched according to their estimated delivery date, and the section of the Personal Information Form containing the birth outcomes information and the EPDS were applied. In this stage, data collection lasted for 5-10 minutes.

### 2.2. Data Collection Tools

**Personal Information Form:** This form comprised 18 questions created by reviewing the literature (10, 11). The questions included demographic characteristics, obstetric data, and birth-related questions.

**Birth Beliefs Scale (BBS):** The scale was developed by Preis and Benyamini to evaluate women's fundamental beliefs about childbirth, and Ahsun conducted its Turkish validity and reliability study (11, 12). The scale was composed of two subscales: Natural Process Belief and Medical Process Belief. The Cronbach's alpha reliability coefficient of the scale was 0.890 for the Natural Belief subscale and 0.868 for the Medical Belief subscale (11). In this study, Cronbach's alpha reliability coefficient was 0.710 for the Natural Belief subscale and 0.790 for the medical belief subscale.

**The Scale of Traumatic Childbirth Perception (STCP):** The scale developed by Yalınz et al. (2016) determines the traumatic birth perception levels of women of reproductive age (13). The scale items are scored between 0 and 10 (I am not afraid at all; I am very afraid). The minimum and maximum points obtained from the scale are 0 and 130, respectively. The mean total score shows the level of traumatic birth perception. The Cronbach's alpha reliability coefficient of the scale is 0.895 (13). In this study, Cronbach's alpha reliability coefficient of the scale was 0.890.

**Edinburgh Postpartum Depression Scale (EPDS):** The scale consists of 10 items, and each item questions how the mother felt in the previous week (14, 15). This four-point Likert-type scale is scored between 0-3 points, and the minimum and maximum scores obtained from the scale are 0 and 30, respectively. The cut-off point was 13. The Cronbach's alpha coefficient of the scale was reported to be 0.79

(15). In this study, Cronbach's alpha reliability coefficient of the scale was 0.81.

Ethical Considerations: Approval of İnönü University Health Sciences Non-Interventional Research Ethics Committee (Date: 07.09.2021, Decision No: 2021/2394) was obtained to conduct the study. All pregnant women included in the study were informed about the study, and verbal consent was obtained from women who agreed to participate. The determination of the women who would participate in the study was based on the principle of volunteering. The data obtained in the survey were used only for this study.

Statistical Analysis: The data obtained from the study were statistically analyzed using the SPSS 25.0 (Statistical Packet for the Social Science) program. The conformity of the data to the normal distribution was investigated by the Kolmogorov-Smirnov test. It was determined that the data were normally distributed. Independent samples t-test and one-factor analysis of variance test were used to evaluate the role of sociodemographic, obstetric and birth

characteristics in the birth beliefs of the participants. Independent samples t-test was used to evaluate the participants' birth beliefs, traumatic birth perception, postpartum depression levels and birth outcomes. Pearson correlation analysis was used to determine the relationship between birth beliefs subscales, traumatic birth perception and postpartum depression. The results were evaluated at a  $p < 0.05$  significance level.

### 3. Results

The comparison of the mean NPBS and MPBS scores according to some introductory characteristics of women is presented in Table 1. While there was no statistically significant difference between the mean MPBS scores and the baseline characteristics of women ( $p > 0.05$ ), the difference between the mean NPBS score and the gestational week, miscarriage/curettage, and the mean number of controls during pregnancy was statistically significant (Table 1;  $p < 0.05$ ).

**Table 1.** Comparison of the mean scores of women of the Natural Process Belief and Medical Process Belief according to some descriptive characteristics (n=514)

Variables	n(%)	Natural Process Belief		Medical Process Belief	
		Mean±SD	Test*	Mean±SD	Test*
<b>Age (year)</b>					
19-29 year	272(52.9)	20.16±3.37	t=-0.465	21.25±2.97	t=0.333
30-40 year	242(42.1)	20.30±3.48	p=0.642	21.16±2.74	p=0.740
<b>Education status</b>					
High school and below	360(70.0)	20.07±3.39	t=-1.626	21.30±2.83	t=1.142
University and above	154(30.0)	20.61±3.48	p=0.105	20.99±2.92	p=0.254
<b>Employment status</b>					
Yes	87(16.9)	20.36±3.92	t=-0.395	21.00±3.27	t=0.395
No	427(83.1)	20.20±3.31	p=0.693	21.25±2.77	p=0.693
<b>Income status</b>					
Low	73(14.2)	20.42±3.14	F=0.289 <sup>a</sup>	21.20±2.62	F=0.649
Medium	427(83.1)	20.18±3.48	p=0.749	21.24±2.89	p=0.523
High	14(2.7)	20.71±3.07		20.35±3.05	
<b>Family type</b>					
Nuclear family	441(85.8)	20.30±3.37	t=1.188	21.22±2.80	t=0.248
Extended family	73(14.2)	19.79±3.69	p=0.235	21.13±3.22	p=0.804
<b>Country of residence</b>					
State	364(70.8)	20.05±3.51	t=-1.894	21.14±2.92	t=-0.911
County	150(29.2)	20.68±3.16	p=0.059	21.39±2.71	p=0.512
<b>Status of undergoing a gynecological operation</b>					
Yes	67(13.0)	20.59±3.62	t=0.927	21.14±2.74	t=-0.198
No	447(87.0)	20.18±3.39	p=0.355	21.22±2.88	p=0.843
<b>Gestational week</b>					
28-36 w	218(42.4)	20.75±3.51	t=2.985	21.33±2.84	t=-0.821
≥37 w	296(57.6)	19.85±3.31	p=0.003	21.12±2.87	p=0.412
<b>Number of pregnancies</b>					
1-2 pregnancy	279(54.3)	20.08±3.65	t=-1.052	21.06±2.99	t=-1.290
≥3 pregnancy	235(45.7)	20.40±3.12	p=0.293	21.39±2.69	p=0.197
<b>Miscarriage/curettage status</b>					
Yes	142(27.6)	20.83±3.01	t=-2.447	21.36±2.72	t=-0.744
No	372(72.4)	20.00±3.54	p=0.015	21.15±2.91	p=0.457
<b>Pregnancy planning status</b>					
Yes	403(78.4)	20.30±3.45	t=0.849	21.55±2.87	t=-0.627
No	111(21.6)	19.99±3.31	p=0.396	21.06±2.81	p=0.531
<b>Number of controls during pregnancy</b>					
≤3 controls	53(10.3)	18.13±3.48	t=-4.664	21.33±2.80	t=0.344
≥4 controls	461(89.7)	20.47±3.33	p=0.000	21.19±2.87	p=0.512

\*Independent samples t-test, <sup>a</sup>Analysis of Variance (ANOVA)

The comparison of some birth outcomes of women and the mean NPBS and MPBS scores are presented in Table 2. The difference between the mean scores of the administration of amniotomy, administration of labour induction and the mean NPBS score was statistically significant ( $p < 0.05$ ). In contrast, the difference between the type of delivery, having problems at birth, abdominal compression, administration of episiotomy and the mean NPBS

score was not statistically significant ( $p > 0.05$ ). The difference between only having problems at birth and the mean MPBS score was statistically significant ( $p < 0.05$ ). In contrast, the difference between the administration of amniotomy, administration of labour induction, abdominal compression, administration of episiotomy and the mean MPBS score was not statistically significant ( $p > 0.05$ ; Table 2).

**Table 2.** The comparison of some birth outcomes of women and Natural Process Belief and Medical Process Belief mean scores (n=514)

Variables	Natural Process Belief			Medical Process Belief	
	n (%)	Mean±SD	Test	Mean±SD	Test
<b>Type of delivery</b>					
Vaginal	274(53.3)	20.01±3.60	t=-1.564	21.14±2.77	t=-0.606
Cesarean section	240(46.7)	20.48±3.19	p=0.118	21.29±2.96	p=0.545
<b>Having problems at birth*</b>					
Yes	45(8.8)	20.86±3.58	t=1.295	22.46±2.80	t=3.098
No	469(91.2)	20.17±3.40	p=0.196	21.09±2.84	p=0.002
<b>Administration of amniotomy*</b>					
Yes	272(52.9)	19.95±3.33	t=-1.993	21.22±2.95	t=0.117
No	242(47.1)	20.55±3.50	p=0.047	21.19±2.76	p=0.907
<b>Administration of labor induction*</b>					
Yes	202(39.3)	19.59±3.35	t=-3.452	21.07±2.92	t=-0.859
No	312(69.7)	20.65±3.41	p=0.001	21.30±2.82	p=0.391
<b>Abdominal compression*</b>					
Yes	103(20.0)	19.87±3.56	t=-1.199	21.44±2.95	t=0.922
No	411(80.0)	20.32±3.38	p=0.231	21.15±2.84	p=0.357
<b>Administration of episiotomy*</b>					
Yes	214(41.6)	20.07±3.35	t=-0.924	21.18±2.88	t=-0.212
No	300(58.4)	20.35±3.47	p=0.356	21.23±2.85	p=0.832

\*Based on women's verbal statements.

The correlation coefficients between BBS subscales and STCP and EPDS are presented in Table 3. There was a relationship between NPBS and STCP; however, this relationship was not statistically significant ( $p > 0.05$ ). There was a positive relationship with EPDS, which was statistically significant ( $p < 0.05$ ). There was a relationship between MPBS, STCP, and EPDS; however, this relationship was not statistically significant (Table 3;  $p > 0.05$ ).

**Table 3.** The correlation coefficients between BBS subscales and STCP and EPDS

	NPBS		MPBS		STCP		EPDS	
	r*	p-value	r*	p-value	r*	p-value	r*	p-value
NPBS	1							
MPBS	0.301**	0.000	1					
STCP	0.083	0.062	0.053	0.230	1			
EPDS	0.116**	0.009	0.016	0.722	0.056	0.205	1	

r\*: Pearson Correlation Analysis, NPBS: Natural Process Belief Scale, MPBS: Medical Process Belief Scale, STCP: The Scale of Traumatic Childbirth Perception, EPDS: Edinburgh Postnatal Depression Scale

The regression analysis results on natural birth beliefs of pregnant women (Stepwise) are presented in Table 4. The regression model created between the natural birth beliefs of pregnant women and

EPDS was found to be statistically significant ( $F=6.944$ ,  $p=0.009$ ). A one-unit increase in EPDS causes an increase of 0.078 in pregnant women's natural birth belief levels (Table 4;  $p=0.009$ ).

**Table 4.** The regression analysis results on natural birth beliefs of pregnant women (Stepwise)

	B (%95 CI)	Beta	t	P- value	Zero- order	Partial
(Constant)	19.772 (19.318- 20.226)	-	85.516	0.000	-	-
EPDS	0.078	0.116	2.635	0.009	0.116	0.116

B: Non-standardized coefficient; Beta: Standardized coefficient, F=6.944, p=0,009  
Adj.R<sup>2</sup>=0.011, SE=3.405

#### 4. Discussion

It is considered that determining the factors related to birth beliefs for women to have a healthy pregnancy and a positive birth experience may contribute positively to women's perception of birth and birth outcomes (12, 16). Therefore, this study aimed to determine birth beliefs, traumatic birth perception levels, birth outcomes, and postpartum depression in pregnant women.

In the study, while there was no difference between the mean NPBS scores in terms of demographic characteristics (age, education, income level, employment status, and place of living), women who were 28-36 weeks pregnant, who had miscarriage/curettage, and who had  $\geq 4$  controls during their pregnancy considered birth as a natural process (Table 1;  $p < 0.05$ ). Informing the expectant mother about the birth may cause her to perceive the birth as normal (17). According to the study results, the fact that those who went to more than four check-ups during their pregnancy saw the birth as natural may result from getting more information about birth during the visits. Women may prefer normal delivery to avoid surgery and interventional procedures (18). This may explain the perception of birth as natural by those who had miscarriages and curettage in the study. In the literature, there are studies with different results about birth beliefs. In a study, it was reported that profession and educational status were not effective in the choice of mode of delivery (19). In the study conducted by Sönmez and Sivashioğlu, the relationship between the education of pregnant women and their choice of mode of delivery was examined, and it was reported that there was no significant difference between the education level of pregnant women and their choice of mode of delivery (20). In their study, Alp Yılmaz and Durgun Ozan determined the factors affecting natural birth beliefs in primiparous women and stated that age, education, and income level affected the birth beliefs (21). In the study by Preis et al., it was stated that age did not affect birth beliefs, while education and income level affected birth beliefs (22). It was considered that the similar and opposite study results compared with our results in terms of demographic characteristics were because the studied groups were different in terms of obstetric and demographic characteristics such as the number of gravidae.

In the study, women who did not undergo amniotomy and were not given labour induction perceived birth as natural during pregnancy, and those with higher mean medical birth belief scores in their pregnancies were higher than those who had problems at birth (Table 2;  $p < 0.05$ ). Accordingly, women with problems at birth were more likely to consider birth as a medical process. There was no difference in the subscales of the birth belief scale in terms of episiotomy and mode of delivery characteristics. Women who consider birth as natural consider pregnancy as the peak point of a feminine experience (23). In the study by Hainess et al., the beliefs and attitudes toward birth were evaluated with different parameters. It was reported that “women who indicated a preference for vaginal birth showed higher levels of agreement with ‘Birth as a Natural Event’ compared with preferring cesarean”.<sup>2</sup> Although no study in Turkey reports the relationship between birth beliefs during pregnancy and birth outcomes, a study was conducted to determine the factors affecting birth beliefs. In the related study, although 78.5% of women had a positive attitude towards normal birth, 41.2% of them had a cesarean section (24). Therefore, the results of our study support the knowledge that women can have both beliefs. The relationship between the subscales of the birth belief scale and the STCP and EPDS was evaluated by Pearson’s correlation analysis. Accordingly, there was a relationship between NPBS and STCP; however, this relationship was not statistically significant (Table 3;  $p > 0.05$ ). There was a positive relationship with EPDS, which was statistically significant ( $p < 0.05$ ). There was a relationship between MPBS, STCP, and EPDS; however, this relationship was not statistically significant ( $p > 0.05$ ). In the stepwise regression between pregnant women's natural birth beliefs and EPDS, birth belief was a natural predictor of postpartum depression (Table 4;  $p = 0.009$ ). Although women consider vaginal delivery ideal, they may prefer medical delivery to ensure safe delivery. Women may be affected by either one of the beliefs or both simultaneously (12). Therefore, psychologist’s separate beliefs from attitudes (25). Normal birth is well-received by society. Therefore, women may force themselves to have a normal birth. They may have to have a cesarean section, although they have fear and anxiety about normal birth. False birth beliefs may lead to consequences that adversely affect maternal health after birth (2, 26, 27). In this study, the positive and significant relationship between natural birth belief and postpartum depression may be the result of it. Various studies have reported that inconsistency between birth preferences and mode of delivery results in low birth satisfaction and may even increase the risk of postpartum trauma stress disorder (28, 29). Many cultural and health system-specific

factors affect women's birth beliefs (21). The lack of a statistically significant relationship between traumatic birth perception and birth beliefs may be explained by this.

## 5. Conclusion

In conclusion, there was a positive relationship between NPBS and EPDS, and EPDS predicted natural birth belief, and this relationship was statistically significant. The fact that birth is a physiological process supports the idea that normal birth is natural and safe. So, it may be recommended to provide training in antenatal care and birth preparation classes. Unnecessary (inappropriate or unnecessary amniotomy, etc.) interventions that may cause negative birth beliefs should be avoided.

### 5.1. Limitations of the Study

This study has some limitations. In cross-sectional studies, there are difficulties in establishing causality between independent and dependent variables, which is also true for our study. There were some limitations regarding the data collection process. Although women's birth beliefs are collected close to birth (28-41 weeks), beliefs may change until birth. This may affect the relationship between birth beliefs and birth outcomes and the risk of postpartum depression. Therefore, it may be recommended to further investigate the factors related to the realization of birth preferences and their relationship with birth outcomes and postpartum depression. Furthermore, the results of the study cannot be generalized since the study was conducted in a single centre with 28-41 weeks pregnant women. There are differences in the results of our study compared to the results of the studies in the literature, which may contribute to the expansion of the relevant results. Furthermore, due to the limited number of relevant studies in our country, it is considered that the study will contribute to the literature.

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### Authorship Contribution:

SB: Concept, materials, data collection and/or processing, literature search, analysis and/or interpretation, writing manuscript.

EG: Design, supervision, analysis, critical review, writing manuscript.

## 6. References

1. McDevitt-Petrovic O Kirb K. Assessing the effectiveness of brief and low intensity psychological interventions for medically unexplained symptoms and health anxiety: A systematic review of the literature. In: Psychosomatic Medicine, ed. Ignacio Jáuregui Lobera. 4th ed. London, Intech Open;2020;1-27.
2. Haines H, Rubertsson C, Pallant JF, Hildingsson I. Womens' attitudes and beliefs of childbirth and association with birth preference: a comparison of a Swedish and an Australian sample in midpregnancy. *Midwifery*. 2012;28(6):e850-856. doi:10.1016/j.midw.2011.09.011
3. Benyamini Y, Molcho ML, Dan U, Gozlan M, Preis H. Women's attitudes towards the medicalization of childbirth and their associations with planned and actual modes of birth. *Women Birth*. 2017;30(5):424-430. doi:10.1016/j.wombi.2017.03.007
4. Nystedt A, Högberg U, Lundman B. The negative birth experience of prolonged labour: a case-referent study. *J Clin Nurs*. 2005;14(5):79-86. doi:10.1111/j.1365-2702.2004.01105.x
5. Rodríguez-Almagro J, Hernández-Martínez A, Rodríguez-Almagro D, et al. Women's perceptions of living a traumatic childbirth experience and factors related to a birth experience. *Int J Environ Res Public Health*. 2019;16(9):1654. doi:10.3390/ijerph16091654
6. Akça E. Nullipar gebelere sağlık inanç modeli doğrultusunda verilen mobil eğitim normal doğum eğilimine etkisi. İnönü Üniversitesi Sağlık Bilimleri Enstitüsü Ebelik Anabilim Dalı, Doktora Tezi. Malatya, Türkiye. 2021.
7. Yazıcı Topçu T, Aktaş S. An investigation of the relationship between health literacy levels of pregnant women and their perceptions of traumatic childbirth. *Soc Work Public Health*. 2022;37(2):195-207. doi:10.1080/19371918.2021.1986450
8. Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression: development of the 10-item Edinburgh Postnatal Depression Scale. *Br J Psychiatry*. 1987;150(6):782-786. doi:10.1192/bjp.150.6.782
9. Nagle U, Naughton S, Ayers S, et al. A survey of perceived traumatic birth experiences in an Irish maternity sample—prevalence, risk factors and follow up. *Midwifery*, 2022;113,103419. doi:10.1016/j.midw.2022.103419
10. Şahin M, Erbil N. Doğum ve medikalizasyon. *Ordu University J Nurs Stud*. 2019;2(2):120-130.
11. Ahsun E. Doğum inançları ölçeği Türkçe formu geçerlilik ve güvenilirlik çalışması. Ege Üniversitesi Sağlık Bilimleri Enstitüsü Ebelik Anabilim Dalı, Yüksek Lisans Tezi. İzmir, Türkiye. 2018.
12. Preis H, Benyamini Y. The birth beliefs scale—a new measure to assess basic beliefs about birth. *JPOG*. 2017;38(1):73-80. doi:10.1080/0167482X.2016.1244180
13. Yalnız H, Canan F, Ekti Genç R, Kuloğlu MM, Geçici Ö. Travmatik doğum algısı ölçeğinin geliştirilmesi. *Yeni Tıp Dergisi*. 2016;8(3):81-88.
14. Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression: development of the 10-item Edinburgh Postnatal Depression Scale. *Br J Psychiatry*. 1987;150(6):782-786. doi:10.1192/bjp.150.6.782
15. Engindeniz AN, Küey L, Kültür S. Edinburgh Doğum Sonrası Depresyon Ölçeği Türkçe formu geçerlilik ve güvenilirlik çalışması. *Bahar Sempozyumları* 1996;1:51-52.

16. Taşpınar A, Özpınar S, Çoban A, Küçük M. The effects of prenatal care on cesarean section rates in a maternity and children's hospital. *Cumhuriyet Med J.* 2014;36:442-450. doi:10.7197/cmj.v36i4.5000070055
17. Altman MR, Oseguera T, McLemore MR, et al. Information and power: Women of color's experiences interacting with health care providers in pregnancy and birth. *Soc Sci Med.* 2019;238:112491. doi:10.1016/j.socscimed.2019.112491
18. Sun N, Yin X, Qiu L, Yang Q, Gong Y. Chinese obstetricians' attitudes, beliefs, and clinical practices related to cesarean delivery on maternal request. *Women Birth.* 2020;33(1): e67-e71. doi:10.1016/j.wombi.2019.03.001
19. Rajabi A, Maharlouei N, Rezaianzadeh A, et al. Non-medical factors affecting antenatal preferences for delivery route and actual delivery mode of women in southwestern Iran. *J Matern Fetal Neonatal Med.* 2016;29(22):3622-3628. doi:10.3109/14767058.2016.1140137
20. Sönmez Cİ, Sivaslıoğlu AA. Gebe kadınların doğum şekli tercihi ve bunları etkileyen faktörler. *Konuralp Medical Journal.* 2019;11(3):369-376. doi:10.18521/ktm.629706
21. Yılmaz FA, Ozan YD. Women's birth beliefs and associated factors in an obstetrics clinic in the Southeastern Anatolian Region of Turkey. *J. Health Res.* 2020;34(4):345-351. doi:10.1108/JHR-07-2019-0166
22. Preis H, Gozlan M, Dan U, Benyamini YA. A quantitative investigation into women's basic beliefs about birth and planned birth choices. *Midwifery.* 2018;63:46-51. doi:10.1016/j.midw.2018.05.002
23. Raphael-Leff J. Healthy Maternal Ambivalence. *Studies in the Maternal.* 2010;2(1),1-15. doi:10.16995/sim.97
24. Siabani S, Jamshidi K, Mohammadi MM. Attitude of pregnant women towards normal delivery and factors driving use of caesarian section in Iran (2016). *Biopsychosoc Med.* 2019;13(1):1-7. doi:10.1186/s13030-019-0149-0
25. Stoll KH, Hauck YL, Hall WA. Home or hospital? Midwife or physician? Preferences for maternity care provider and place of birth among Western Australian students. *Women Birth.* 2016;29(1):e33-e38. doi:10.1016/j.wombi.2015.07.187
26. D'Cruz L, Lee C. Childbirth expectations: an Australian study of young childless women. *J Reprod Infant Psychol.* 2014;32(2):199-211. doi:10.1080/02646838.2013.875134
27. Jenabi E, Khazaei S, Bashirian S, Aghababaei S, Matinnia N. Reasons for elective cesarean section on maternal request: a systematic review. *J Matern Fetal Neonatal Med.* 2020;33(22):3867-3872. doi:10.1080/14767058.2019.1587407
28. Preis H, Lobel M, Benyamini Y. Between expectancy and experience: testing a model of childbirth satisfaction. *Psychol Women Q.* 2019;43(1):105-117. doi:10.1177/0361684318779537
29. Gibson E. Women's expectations and experiences with labour pain in medical and midwifery models of birth in the United States. *Women Birth.* 2014;27(3):185-189. doi:10.1016/j.wombi.2014.05.002