ORIGINAL ARTICLE

Normal birth belief levels of pregnants and affecting factors

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Abstract

This study was carried out to determine the normal birth belief levels of pregnant women and the affecting factors. This descriptive study was conducted between November and December 2021 in a pregnant education class of a public university. The sample of the study consisted of 342 pregnant women. Data were obtained through the "Personal Information Form" and "The Belief Scale for Normal Delivery (BSND)". Pregnant women with a mean age of 28.18±4.77 were determined that 75.5% of them were high school and university graduates, 77.8% were not working, 71.1% perceived their economic status as moderate, and 80.7% had a nuclear family structure. In the study, the mean total score of BSND was 77.74±14.91, and it was determined that 12.6% of the pregnant women had low, 62.3% moderate, and 25.1% high-level normal birth beliefs. In this study, it was determined that the level of belief in normal birth during pregnancy was affected by family structure, spouse's employment status, planned pregnancy, choice of birth method, the person who is influential in deciding the mode of birth and receiving training on preparation for birth (p<0.05). It was determined that the belief of pregnant women in normal birth was at a moderate level and it was affected by some individual and obstetric characteristics. It can be suggested that health professionals should determine the factors that affect the normal birth belief levels of pregnant women and also include women in the decision-making process during pregnancy and childbirth.

Keywords: Pregnant women, birth belief, normal birth, influencing factors

Introduction

Pregnancy and labor, which involve the dimensions of family and society, are known as universal biological processes [1]. Many psychological, physical, and social changes that emerge along with pregnancy and birth are recognized as extremely important and challenging periods in a woman's life [2]. Women's involvement in decisions regarding their care and the provision of this care by considering their birth preferences and values are increasingly accepted as an inseparable part of high-quality birth care [3]. Although basic beliefs regarding the nature of the birth process are known to be associated with birth preferences [4], the relationship between women's birth beliefs and preferences has yet to be explained in the best way possible [5]. Birth practices, which have dramatically changed over the last century, have led to variations in the concept of perceived birth belief both in developed and developing countries. In It should be written as "Turkey Demographic and Health Survey (TDHS)" 2018, it was stated that C-section rates were 52%, only

3% of prenatal care was given by a midwife or nurse, birth under the management of a midwife was only 7.8% and approximately 99% of all deliveries are performed in hospitals [6]. It is stated that these data express the medical point of view on childbirth [7]. It has also been emphasized that medical interventions during birth should be avoided and that women should complete this process as a positive experience [8].

The birth belief concept can be defined as the general overview of the physical nature of the birth process. Birth beliefs, which are made up of medical and natural dimensions, offer an idea about what birth is and how it should be managed. Medical beliefs consider birth as a risky process that should be managed with the latest technology by a healthcare professional, and in this perspective, labor pain is seen as an unnecessary disturbance. The natural dimension of birth beliefs, on the other hand, considers birth as a natural and safe process and claims that a woman knows how to deliver with the least intervention [9]. It has been stated that belief in normal birth is associated with fear of birth, birth preference, and birth satisfaction [10]. As beliefs emerge as essential factors in women's perceived birth preferences, it is important to reveal the basis of the belief. In a study conducted to test the biopsychosocial model of normal birth beliefs, the woman's method of birth, the birth methods of the family members, and sociodemographic

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characteristics are listed as social factors affecting birth belief [11]. Situations such as conceiving through assisting reproductive technology, high-risk pregnancy, and/or previous miscarriage can affect women's belief in normal birth [12]. It has been pointed out that these effective factors shape the biomedical dimension of birth belief. It has also been stated that birth beliefs can be related to psychological tendencies [11]. Normal birth is associated with short-and long-term health benefits for the mothers and babies, including less risk of postnatal bleeding, increased satisfaction of the mother with the birth, less psychological morbidity in the postnatal period, early start of breastfeeding, and increased neonatal intestine microbiota variety in the early period [13]. It has been argued that as healthcare professionals, midwives should instill a perspective in women in which it is emphasized that pregnancy and birth are healthy situations and that not all deliveries require an active medical intervention [14]. Moreover, in studies conducted, it has been determined that care under the guidance of a midwife is related to both less medical intervention and increased satisfaction with the birth experience [15,16]. It has also been reported that increased positive birth experiences can increase belief in normal birth [11]. While there are various studies conducted in the literature that dealt with the fear of birth [17-19] and the method of birth [20], research examining birth belief is rather limited [3]. Therefore, it is believed that the present study in which we aimed to examine the factors affecting normal birth belief will contribute to the literature.

Material and Methods

The present study was carried out with a descriptive design to determine pregnant women's beliefs regarding normal birth. The study was conducted in a pregnancy training class affiliated with a state university between November-December 2021. The sample calculation was determined as a minimum of 208 pregnant women with a cohen effect size of 0.05 margin of error, 95% confidence interval, and 95% representative power using the g power 3.1 programs. The study was completed with 342 pregnant women who met the inclusion criteria with the voluntary sampling method, one of the nonprobability sampling methods.

Inclusion Criteria

- Being literate,
- Having a singular fetus,
- Not having a risky pregnancy,
- Being in the pregnancy week of between 20-38,
- Not having any diagnosed barriers to normal birth.

Exclusion Criteria

- Being pregnant with assisted reproductive techniques,
- Pregnant women with communication difficulties or mental disabilities

Data Collection Tools

In collecting the study data, "Personal Information Form" and "The Belief Scale for Normal Delivery (BSND)" were used.

Personal Information Form

The Personal Information Form prepared by the researchers in line with the literature [21,22] consisted of questions inquiring about the sociodemographic (the pregnant woman's age, education, employment status, income level, and family type) and obstetric characteristics (number of pregnancies, the previous method of birth, etc.).

The Belief Scale for Normal Delivery (BSND)

The Belief Scale for Normal Delivery (BSND) developed by Ibici Akca and Aksoy Derya evaluates pregnant women's beliefs and tendencies regarding normal birth. BSND consists of 6 subscales and 24 items. The 5-point Likert type scale is scored as Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), and Strongly Disagree (1). Items 12, 13, 14, 15, 16, and 17 are scored reversely. The minimum and maximum scores to be obtained from the scale are 24 and 120. In the evaluation of the scale, both the subscale scores and the total scale score can be used. The score obtained from the total scale between 24 and 56 indicates a low level of belief and tendency regarding normal birth, a score between 57-88 shows a moderate level of belief and tendency, and a score between 89-120 demonstrates a high level of belief and tendency. As the mean score obtained from the total scale increases, the pregnant women's beliefs and tendencies towards normal birth increase as well. The internal consistency coefficient of the total scale is 0.83 [23]. In the present study, this coefficient was found to be 0.95.

Data Collection

The study data were collected through face-to-face interviews held with pregnant women who attended a pregnancy training class affiliated with a state university and agreed to participate in the study between November-December 2021. The interviews lasted 10-15 minutes on average.

Ethical Aspect of Research

Written permission from the institution where the research data were obtained (Number: E-72527474-771-127845) and approval from the local ethics committee was obtained (Decision No: 2021/2598). In addition, verbal consent was obtained from the participants.

Analysis of the Data

The data obtained from the research were analyzed using the "Statistical Package for the Social Sciences" (SPSS) for Windows 25.0 (IBM SPSS Statistics for Windows, Armonk, NY) program. The Kolmogorov Smirnov Test was used to check whether the data included in the study fit the normal distribution. Since the skewness value of the model was between -2 and +2, it was seen that it yielded a normal distribution [24]. In the statistical analysis, in addition to descriptive statistics (number, percentage distribution, mean, and standard deviation), independent groups t-test, One-Way Analysis of Variance, Mann-Whitney U test, and Kruskal Wallis test were used. The results were evaluated at the 95% confidence interval and the significance level of $p < 0.05$.

Results

In table 1, the comparison of the pregnant women's Belief Scale for Normal Delivery (BSND) mean score concerning some sociodemographic characteristics is presented. It was determined that the participant's mean age was 28.18±4.77, 75.5% were high

school and university graduates, 71.1% perceived their income level as moderate, 77.8% were unemployed, 80.7% had a nuclear family, and the spouses of 92.9% were employed (Table 1). It was determined that the difference between the pregnant women's BSND total score and their "family structure" and "employment status of the spouse" was statistically significant (p<0.05), that the pregnant women with nuclear family structure compared to the pregnant women with extended family structure and the pregnant women whose spouses were employed in comparison to those with unemployed spouses had a higher level of normal birth belief (Table 1).

Table 1. Comparison of pregnant women's total scale scores from the Belief Scale for Normal Delivery (BSND) based on their sociodemographic attributes (n:342)

Variables	n	%	BSND (Mean±SD)
Age			
18-35	309	90.4	77.72±14.62
36 and above	33	9.6	77.93±17.63
Test and p value			t=-0.077 p=0.938
Education Level			
Literate-Primary School	84	24.5	76.32±15.62
High School-University	258	75.5	77.89±14.60
Test and p value			t=-0.696 p=0.487
Education Level of the Spouse			
Literate-Primary School	49	14.3	75.57±15.31
High School-University	293	85.7	77.84±14.55
Test and p value			t=-0.997 p=0.320
Level of income			Mean Rank
High	76	22.2	160.11
Modarete	243	71.1	175.30
Low	23	6.7	169.02
Test and p value			KW=0.693 p=0.501
Family Structure			
Nuclear family	276	80.7	78.59±14.78
Extended family	66	19.3	74.19±15.02
Test and p value			t=2.165 p=0.031*
Employment status			
Yes	76	22.2	80.19±14.64
No	266	77.8	77.04±14.94
Test and p value			t=1.627 p=0.105
Spouse's employment status			
Yes	318	92.9	78.17±14.89
No	24	7.1	72.08±14.23
Test and p value			MW=-2.144 p=0.032*
Age (Mean±SD)			28.18±4.77
Total	**342**	**100**	

BSND: Belief Scale for Normal Birth; SD: Standart deviation; t: Independent samples t-test; KW: Kruskall-Wallis test; *p<0.05

In table 2, the comparison of the pregnant women's BSND means scores concerning some obstetric characteristics is presented. It was found that the pregnant women's mean pregnancy week was 36.21±2.23, 46.8% had their first pregnancy, 90.7% had planned pregnancy, 46.1 were undecided about the choice of the method of birth, 71.9% were born through normal birth, the doctor was the determining person about the method of birth in 67.8%, 60.8% were followed-up for pregnancy at a state hospital, 82.7% had received information about pregnancy, and 70.2% had received information about pregnancy from a doctor (Table 2). It was determined that the difference between the pregnant women's BSND mean score

and "choice of the method of birth" was statistically significant, and that this difference stemmed from the C-section group (p<0.001) (Table 2). It was also determined that the difference between the pregnant women's BSND mean score and "the person who is influential in deciding the mode of birth" was statistically significant, and that the difference resulted from the pregnant women group who expressed that the doctor was effective in the decision about the method of birth (p<0.001) (Table 2). It was revealed that the difference between the pregnant women's BSND means to score and "planned pregnancy" and "receiving training on preparation for birth" was statistically significant (p<0.05), and that the pregnant women with planned pregnancy compared to those with an unplanned pregnancy and those who had received birth preparation training in comparison to those who had not had a higher level of normal birth belief (Table 2).

Table 2. Comparison of pregnant women's total scale scores from Belief Scale for Normal Delivery (BSND) based on their obstetric attributes (n: 342)

Variables	n	%	BSND (Mean±SD)
Number of pregnancies			
First pregnancy	160	46.8	79.45±12.78
Second pregnancy	100	29.2	75.55±16.50
3 times and more pregnancy	82	24.0	77.09±16.44
Test and p value			F=2.229 p=0.109
Planned pregnancy			
Yes	310	90.7	73.41±15.30
No	32	9.3	78.07±14.85
Test and p value			t=-2.000 p=0.046*
Choice of birth method			Mean Rank
Normal birth	106	31.0	82.02±15.54
Cesarean	78	22.9	68.20±14.34[a]
Undecided	158	46.1	79.58±12.63
Test and p value			F=24.500 p=0.000**
Method of birth			75.57±15.31
Normal birth	246	71.9	78.25±14.85
Cesarean	96	28.1	76.44±15.06
Test and p value			t=1.007 p=0.314
The person who is influential in deciding the type of birth			Mean Rank
Doctor	232	67.8	202.80[a]
Midwife	91	26.6	103.70
Social (family, friend)	19	5.6	114.00
Test and p value			KW=75.525 p=0.000**
The hospital for pregnancy follow-up			
Public	283	82.8	172.02
Private	56	16.3	172.69
University	3	0.9	100.67
Test and p value			KW=1557 p=0.459
Receiving training on preparation for birth			
Yes	283	82.7	81.65±12.87
No	59	17.3	77.04±15.26
Test and p value			t=-2.099 p=0.037*
Source of information			
Doctor	240	70.2	77.60±15.41
Midwife	102	29.8	78.08±13.72
Test and p value			F=-0.274 p=0.784
Pregnancy week (Mean±SD)			36.21±2.23
Total	**342**	**100**	

BSND: Belief Scale for Normal Delivery;SD: Standart Deviation; t:Independent samples t-test; KW: Kruskall-Wallis test;*p<0.05; F: One-way analysis of variance; **p <0.001 *p<0.05 a: KW Tukey test, one of the post hoc multiple comparison tests, was used for paired group comparisons in the test.

In table 3, the distribution of the pregnant women's mean score obtained from BSND and the mean score from the sub-dimensions is presented. The participating pregnant women's lowest and highest scores from the sub-dimensions of BSND were determined to be as follows: 3 and 15 from the subscale of perceived sensitivity, 4 and 20 from the subscale of perceived seriousness, 4 and 20 from the subscale of perceived benefit, 6 and 30 from the subscale of perceived barriers, 4 and 20 from the subscale of perceived self-efficacy, 3 and 15 from the sub-dimensions of health motivation in the pretest. The lowest and the highest BSND total scores were determined to be 37 and 117, respectively. The mean scores of the pregnant women obtained from the sub-dimensions of BSND were found to be as follows: 9.76±3.63 from the subscale of perceived sensitivity, 14.19±4.78 from the subscale of perceived seriousness, 14.32±4.78 from the subscale of perceived benefit, 15.08±7.03 from the subscale of perceived barriers, 13.76±4.59 from the sub-

dimensions of perceived self-efficacy, 10.61±3.60 from the sub-dimensions of health motivation, and BSND total mean score was determined to be 77.74±14.91 (Table 3).
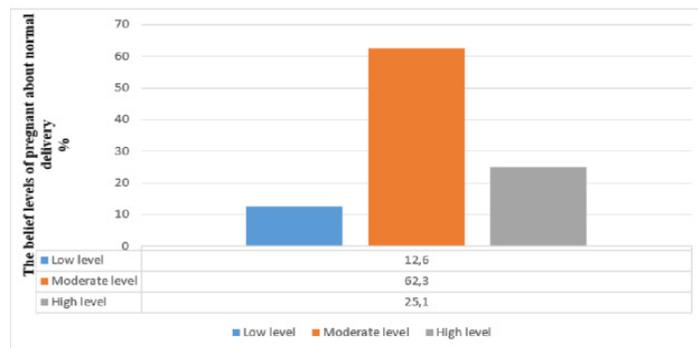

Figure 1. The belief levels of pregnant women about normal delivery

Table 3. Pregnant Women's Belief Scale for Normal Delivery (BSND) total and sub-dimension score averages minimum and maximum values (n: 342)

	BSND total and sub-dimensions	Lowest-Highest Value Receivable	Lowest-Highest Value Received	Mean ± SD
Sub-Dimensions	Perceived Sensitivity	3-15	3-15	9.76 ± 3.63
	Perceived Seriousness	4-20	4-20	14.19 ± 4.78
	Perceived Benefit	4-20	4-20	14.32 ± 4.78
	Perceived Barriers	6-30	6-30	15.08 ± 7.03
	Perceived Self-efficacy	4-20	4-20	13.76 ± 4.59
	Health Motivation	3-15	3-15	10.61 ± 3.60
	BSND Total	**24-120**	**37-117**	**77.74 ± 14.91**

BSND: Belief Scale for Normal Delivery; SD: Standart Deviation

Discussion

The rate of normal birth in our country has severely decreased, and the country has become one of the leading countries in terms of the rate of C-sections. Turkey is among the top five countries with the highest cesarean rate worldwide with a cesarean rate of 50.8% [25]. Hence, the present study, it was aimed to determine pregnant women's belief levels regarding normal birth and effective factors. It was found in the study that the normal birth belief levels of pregnant women with the nuclear family structure were higher compared to those with an extended family structure (p<0.05) (Table 1). It is thought that the low level of belief in pregnant women living in an extended family regarding normal birth may have been due to negative socioeconomic and cultural differences [11]. It is believed that factors such as family elderlies being effective in extended families and their active role in the woman's decision mechanism can also affect the preference of birth method. It is also thought that the traumatic birth stories told by family members who have had negative birth experiences can negatively affect the pregnant woman's normal birth belief. It has been reported that women in extended families generally have lower socioeconomic levels, their families have a more traditional structure, and women can be under the influence of other family members regarding the decision mechanisms [26]. This result obtained indicates the importance of healthcare professionals' considering all factors that could affect birth beliefs in terms of women's conscious choice of the birth method and playing an active role in the decision-making process. In addition, it was determined in the study that pregnant women with employed spouses had higher beliefs regarding normal birth and that the difference between the groups was

statistically significant (p<0.05) (Table 1). It is believed that the socioeconomic level increasing along with the employed spouse enables the woman to have access to healthy information related to the preference of the birth method. Considering that women with unemployed spouses may neglect their routine controls due to factors such as transportation, it can be concluded that they may experience difficulties in accessing accurate information about the birth method.

In the study, it was determined that the normal birth belief levels of the pregnant women who had unplanned pregnancies were higher compared to the belief levels of the pregnant women with planned pregnancies (p<0.05) (Table 2). The lower level of normal birth belief in planned pregnancies is an interesting finding. Planned pregnancy is an important process that prepares the woman for pregnancy and birth. In studies conducted, it has been stated that planned pregnancy allows women to assume more responsibility in terms of their care and the prospective baby's care, supports positive behavior changes and receiving prenatal care, and therefore positively contributes to birth satisfaction [27,28]. In fact, in the study conducted by Jafari et al. (2017), planned pregnancy was determined to increase satisfaction with normal birth [29]. It is believed that women's satisfaction with birth can be an important determinant in the preference of the method of birth. In studies conducted, it has been reported that the satisfaction levels of women who gave normal birth were higher than the satisfaction levels of mothers who had C-sections [30-32]. However, factors in our country such as birth satisfaction not being at the desired level and high perception of traumatic birth may have caused pregnant women to be inclined towards C-section in their preference of birth method. In addition, restriction of the movements of pregnant women during labor, implementation of episiotomy as a routine,

increased rate of inductions, and deliveries being performed in a horizontal position indirectly guide women towards C-section in our country [33,34]. It may be concluded that such situations commonly observed across the country may have decreased normal birth belief levels even in women with a planned pregnancy.

In the present study, it was seen that the Belief Scale for Normal Birth (BSND) mean score of the women who preferred normal birth was higher compared to the mean scores of the women who had C-sections and the women who were undecided about the method of birth (p<0.05) (Table 2). It can be inferred from this finding that preferring normal birth positively will contribute to a normal birth belief level.

It was determined in the study that 62.3% of the pregnant women had a moderate level of The Belief Scale for Normal Birth (BSND) (Figure 1). It is thought that this situation resulted from the contribution of pregnant women training class which is offered systematically and in a multidisciplinary way and provides access to accurate information for pregnant women. It should be remembered that providing pregnant women with healthy information will prevent factors such as the sharing of negative birth experiences to which pregnant women are exposed. In fact, in the studies conducted by Akca et al. (2017) and Spaich et al. (2013), it has been reported that women's attending birth preparation training could be associated with their being active in participating in the decisions made in the birth process [35,36]. According to another study conducted, it was determined that 90.9% of women who preferred normal birth had previously received information on birth preferences [37]. Similarly, in the present study, it was found that normal birth belief levels of women who were informed about birth were higher compared to the women who were not informed (p<0.05) (Table 2). It can be concluded from this finding that women who were informed about birth made the most accurate decision about birth method preference. In the training provided by healthcare professionals on the method of birth, it should be emphasized that C-section should be seen as an operation that is resorted to in case of a complication rather than an option. In the study, it was also determined that healthcare professionals who were the most effective in deciding the method of birth were the doctors (p<0.05) (Table 2). Doctors have a heavy responsibility in this regard in our country where the rate of normal birth is not at the desired level. As a matter of fact, in the study, it was determined that only one-fourth of the pregnant women had a high level of normal birth beliefs and tendencies (Figure 1). This finding can be interpreted as the status of women in terms of receiving birth information is still not at the desired level. It is also thought that factors such as a low level of satisfaction with previous birth experiences and transfer of the perception of a traumatic birth can be effective in this finding. Negative situations experienced by pregnant women during childbirth may lead to a decrease in their beliefs about normal birth [38,39].

Limitation of the Research

Conducting the study in a single center and not including risky pregnant women in the study prevented the generalization of the study to all pregnant women.

Conclusion

In the study, it was determined that only one-fourth of the pregnant women had a high-level normal birth belief. It was also found that factors such as family structure, employment status of the spouse, planned pregnancy, method of birth preference, the person who was effective on the method of birth and having received birth preparation training had an impact on the normal birth beliefs of the pregnant women. It is recommended to increase education and consultancy services in terms of increasing normal birth rates and to inform the people who are effective in birth preference by health professionals.

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