



# What do the pregnant women in our hospital know and think about complementary medicine methods in childbirth?

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## Original Article

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## ABSTRACT

**Objectives:** Pregnancy is a very special and challenging process for women. Especially in the third trimester, as the birth approaches, some concerns may increase. Especially normal birth can scare many women. Since women do not dominate the birth process in their first pregnancies, they have some concerns for both their baby and themselves. In recent years, complementary medicine methods have been used to support normal birth and for the comfort of the patient. In this study, we evaluated the knowledge and thoughts of pregnant women hospitalized in the delivery room about complementary medicine methods in childbirth.

**Methods:** This prospective survey study was conducted at Bursa Yüksek İhtisas Training and Research Hospital from 01 March 2022 to 30 April 2022. The study consists of 57 patients aged 18-40 who gave birth in our hospital. Consent was obtained from all participants and archived before starting the study.

**Results:** Although only nine pregnant heard about complementary medicine methods in childbirth; 100% of the patients thought that these techniques would reduce the mother's stress during childbirth. While 54.4% of these patients were in pain, they were trying to take deep breaths as breathing and relaxation exercises, while 21.1% were praying. None of the patients wanted to try the hypnosis method because they thought it was too scary. 68.4% of the patients thought that relaxing music in labor and 63.2% of them thought that aromatherapy would be successful. In addition, none of the patients had heard of homeopathy.

**Conclusions:** Complementary medicine methods such as aromatherapy, relaxing music therapy or lumbar massage will increase the place of these methods in childbirth, as pregnant women demand it as much as doctors. We can achieve this by providing training on complementary medicine to patients from the early stages of their pregnancy. The increase in the number of patients receiving support from complementary medicine at birth will also diversify the scientific studies that can be done on this subject. In this way, we may have the opportunity to re-evaluate complementary medicine methods with the scientific data we have.

**Keywords:** Complementary medicine, Labor, Aromatherapy



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**P**regnancy is a very special and challenging process for women. Especially in the third trimester, as the birth approaches, some concerns may increase. Especially normal birth can scare many women. Since women do not dominate the birth process in their first pregnancies, they have some concerns for both their babies and themselves. They have a lot of questions and wonders especially about normal birth. A pregnant woman who does the appropriate physical exercises for this process from the first weeks of her pregnancy, goes to the maternity school and prepares herself mentally will feel much more comfortable during childbirth [1]. The process will be much more successful and seamless.

In recent years, complementary medicine methods have been used to support normal birth. Hypnosis, aromatherapy, the relaxing effect of music during labor or homeopathy are the supports methods that increase comfort of the patient [2]. Although scientific evidence for its operability is low [3], it is important for women to be aware of these supportive treatments. Because a woman who feels more comfortable and safer in labor may increase the probability of having a normal vaginal delivery [4]. This may be an important support for the decreasing normal vaginal delivery rates in our country [5].

In order to make this process more comfortable, obstetricians in many institutions started to support the birth process with complementary medicine methods. However, many methods still cannot be used actively during childbirth. One of the reasons for this may be the lack of knowledge of the patients on this subject. In this study, we evaluated the knowledge and thoughts of pregnant women hospitalized in the delivery room about complementary medicine methods in childbirth.

## METHODS

This prospective survey study was conducted at Bursa Yuksek Ihtisas Training and Research Hospital from 01 March 2022 to 30 April 2022. The study consists of 57 patients aged 18-40 who gave birth in our hospital. Consent was obtained from all participants and archived before starting the study.

Patients between 37-41 weeks of gestation who were alive, had cephalic presentation and were admitted to the delivery room for normal vaginal delivery coming from the vertex were included. Gestational weeks of the patients were calculated according to their last menstrual period and 9-12

weeks old ultrasound. Inclusion criteria of the study: low-risk pregnant women, patients who has sufficient sociocultural level to answer the survey questions, and pregnant women whom labor induction can be applied. High-risk pregnancies (i.e., preeclampsia, IUGR, poor obstetric history), patients with previous uterine surgery, patients at high risk of postpartum bleeding, women with serious disease such as heart, kidney or liver disorders diagnosed during the study or previously and hospitalization in the delivery room. Pregnant women with less than an hour interval between delivery, placenta previa, invasion anomaly or a diagnosis of abruptio placenta were excluded from the study. In addition, patients who did not speak Turkish or wanted to leave the study during the evaluation were not included in the study. These patients were excluded according to their anamnesis and laboratory values.

Bishop scoring and detailed anamnesis were taken for all women who met the study criteria when they were admitted to the delivery room. Demographic and obstetric characteristics of the included pregnant women were recorded. A survey was conducted on these patients who had normal delivery or cesarean section, about how much they knew about complementary medicine methods and which one they would like to apply more in childbirth.

Dinoprostone insert was placed in the posterior fornix of patients with a Bishop score of  $\leq 6$  on admission to the delivery room, and the application time was recorded. The application time of this insert was determined as a maximum of 24 hours [6]. Patients whose cervix did not open despite a dinoprostone swab for 24 hours were performed cesarean section with the diagnosis of failed induction and were excluded from the study. Oxytocin infusion was started when necessary, in patients with a Bishop score of  $>6$  or a Bishop score of  $>8$  at admission. It was prepared as 5U in 500 ml of saline and started at a dose of 4 mU/min, increasing by 2 mU/min in 20 minutes. The dose was not increased in patients with contractions of 200 Montevideo units every 10 minutes [7]. The maximum dose was defined as 20 mU/min. All patients were followed up with continuous fetal heart monitoring after uterine contractions started.

Primary outcome was the level of knowledge of the pregnant women hospitalized in our delivery room about complementary medicine methods. The secondary outcome was which of these complementary methods they wanted to apply during childbirth.

## Statistical analysis

SPSS v23 package programs were used in the analysis of the data. The conformity of the data to the normal distribution was examined with the Shapiro-Wilk test. When the data were normally distributed, comparisons between the two groups were made with Student's t-test and descriptive statistics were mean  $\pm$  standard deviation; When the continuous data did not show normal distribution, the comparison of the continuous data was made with the Mann-Whitney U test and the descriptive statistics were given as the Median (Minimum-Maximum) value. The comparison of categorical data between two groups was made with chi-square and Fisher's exact chi-square test, and descriptive statistics were given as frequency and percentage. In statistical analyzes,  $\alpha = 0.05$  was taken as the level of significance.

## RESULTS

At the time of the study, an average of 1350 pregnant women gave birth. Approximately 650 of these patients were taken directly to cesarean section. Only 112 of the patients followed for normal delivery agreed to participate in the survey. Excluding patients with increased contractions or those who could not complete the questionnaire, 57 patients met the study criteria.

Demographic characteristics of the patients are given in Table 1. The median age of the patients was 29, and the body mass index was 25. 38.6% of the patients were secondary school graduates and 29.8% were high school graduates. The obstetric results of the patients were evaluated in Table 2. Their gestational

week was 39 weeks. Only 7% were diagnosed with preterm labor. 84.2% of the patients were admitted to the delivery room with the complaint of pain and most of them had normal vaginal delivery. Fetal outcomes were evaluated in Table 3.

In Table 4, patient data about complementary medicine methods are shared. Although only nine pregnant heard about complementary medicine methods in childbirth; 100% of the patients thought that these techniques would reduce the mother's stress during childbirth. While 54.4% of these patients were in pain, they were trying to take deep breaths as breathing and relaxation exercises, while 21.1% were praying. None of the patients wanted to try the hypnosis method because they thought it was too scary. 68.4% of the patients thought that relaxing music in labor and 63.2% of them thought that aromatherapy would be successful. In addition, none of the patients had heard of homeopathy.

## DISCUSSION

The women who gave birth in our hospital did not know the complementary medicine methods that could be applied during delivery. Although they did not know, they believed that these methods could enable more active participation in childbirth. In addition, although they did not know at all, they were afraid to practice because of the name of some methods.

According to a study conducted by family physicians [3], 82% of the sources that pregnant women obtained information about complementary medicine methods were from family members, while 34% were from friends. In another study conducted in our country,

**Table 1. Demographic characteristics of the patients**

	Values (n = 57)
Maternal age, years(min-max)	29 (20-40)
Gravida, n (min-max)	2(1-7)
Parity, n (min-max)	1(0-4)
BMI (kg/m <sup>2</sup> ), median (min-max)	25(21-29)
<b>Education status</b>	
Primary school, n (%)	9 (15.8)
Middle school, n (%)	22 (38.6)
High school, n (%)	17 (29.8)
University, n (%)	9 (15.8)

BMI: Body mass index

**Table 2. Obstetric and fetal outcomes of the patients**

	Values (n = 57)
<b>Gestational week, median (min-max)</b>	39 (31-41)
<b>Reason for hospitalization</b>	
Labor pain, n (%)	48 (84.2)
PPROM, n (%)	5(8.8)
Fetal distress, n (%)	4 (7)
<b>Contraction</b>	
Yes, n (%)	53 (93)
No, n (%)	4 (7)
<b>Type of birth</b>	
Vaginal birth, n (%)	48(84.2)
Cesarian, n (%)	9 (15.8)
Fetal weight, n (%)	3200 (1840-3835)
1.min. APGAR, median (min-max)	9 (7-9)
5.min. APGAR, median (min-max)	10 (9-10)

PPROM: Preterm premature rupture of membranes , min: minute

the rate of obtaining information from close friends, family and relatives is around 76.9% [8]. In another study conducted on patients who applied to family medicine, it was found that the media (64%) and family members (34.6%) were the most common [9]. According to a study conducted with individuals with breast and gynecological cancer in Germany, the rate of obtaining complementary medicine information from friends and family members is 31.6% [10]. As can be seen, women get this information mostly from their close circles. It is necessary to change this situation, which has a very low scientific level, and to facilitate access to information.

Complementary medicine applications, which are widely used today, are also used in the treatment of problems experienced during pregnancy. When we look at the literature, women used at least one type of complementary medicine method in order to reduce the symptoms they experienced during pregnancy in the early stages of pregnancy and stated that the methods were effective [1,5]. In a review published in recent years [11], the successful results of massage therapy and foot reflexology for edema, which is common in late pregnancy, were mentioned.

Aromatherapy which is defined as the use of oils obtained entirely from plants [3], can be used to control blood pressure in hypertension [12]. These oils, which are used during labor, are mostly used by massage, bath, foot bath and inhalation. Aromatherapy application

during childbirth is usually used with rose, lavender, neroli, sage etc. It is applied in the form of rubbing or inhalation of essential oils on the skin of the mother in labor. In the second phase of the baby's descent and birth, peppermint oil is recommended for the mother as it gives a feeling of strength, lavender oil reduces the sense of panic and strengthens contractions [13, 14]. More than half of the women participating in our study stated that they could try aromatherapy during labor. They've probably heard of this method before. They thought positively about the back massage to be applied with aromatherapy.

In a recent study [15], it was emphasized that nurses and midwives could use music therapy in the care and follow-up of pregnant women with preeclampsia in obstetric units. The majority of the patients in our study were also positive towards music therapy during delivery. With scientific evidence, pregnant women can be relieved by the application of music that has a relaxing timbre in delivery rooms. Thus, a pregnant woman who can cope with contractions more easily may have a higher chance of having a normal delivery. Another method known and favored by most of the patients is water birth. The fact that water delivery rooms have been established and actively working in delivery rooms in some hospitals cannot be denied.

Most of the patients did not research complementary medicine methods before delivery. The reason can be the low sociocultural levels of the pregnant. But the

**Table 3. Patient data on complementary medicine modalities**

	<b>Values (n=57)</b>
<b>Have you heard of complementary medicine methods in childbirth?</b>	
Yes, n (%)	9 (15.8)
No, n (%)	48 (84.2)
<b>Do these methods enable the mother to participate more actively in the birth?</b>	
Yes, n (%)	39 (68.4)
No, n (%)	18 (31.6)
<b>Do these methods reduce the mother's stress during childbirth?</b>	
Yes, n (%)	57 (100)
No, n (%)	-
<b>Do these methods provide a more positive outcome of the birth?</b>	
Yes, n (%)	53 (93)
No, n (%)	4 (7)
<b>Do you want to listen to relaxing music during labor?</b>	
Yes, n (%)	39 (68.4)
No, n (%)	18 (31.6)
<b>Would you like to apply aromatherapy?</b>	
Yes, n (%)	36 (63.2)
No, n (%)	21 (36.8)
<b>Do you think that the back massage applied during labor will reduce the pain?</b>	
Yes, n (%)	30 (52.6)
No, n (%)	27 (47.4)
<b>Would you like to give birth in water?</b>	
Yes, n (%)	31 (54.4)
No, n (%)	26 (45.6)
<b>Do you think complementary medicine methods will relieve the mother physically and psychologically?</b>	
Yes, n (%)	47 (82.5)
No, n (%)	10 (17.5)

majority of the patients prefer lumbar massage and music therapy during labor pains. Thus, priority would be informing pregnant about these new methods and studies. The creation of more isolated rooms where complementary medicine methods can be applied, may contribute to normal birth rates.

## CONCLUSION

Complementary medicine methods such as aromatherapy, relaxing music therapy or lumbar massage will increase the place of these methods in childbirth, as pregnant women demand it as much as doctors. We can achieve this by providing trainings

on complementary medicine from the early stages of pregnancies. The increase in the number of patients receiving support from complementary medicine at birth will also diversify the scientific studies. In this way, we may have the opportunity to re-evaluate complementary medicine methods with the scientific data.

## Authors' Contribution

Study Conception: NNY,; Study Design: NNY,; Supervision: NNY,; Materials: EYB,; Data Collection and/or Processing: EYB,; Statistical Analysis and/or Data Interpretation: EYB,; Literature Review: NNY,; Manuscript Preparation: EYB and Critical Review: NNY.



*Conflict of interest*

The authors declare that they have no conflicts of interests.

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