

## ***Physiological birth advocates: Turkish midwifery students' perceptions of natural birth***

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### **ABSTRACT**

**Objective:** The aim of this study is to examine the views of students studying in the midwifery department about the perception of birth. **Method:** A cross sectional descriptive study. The study was carried out using an online questionnaire, which was prepared by researchers in accordance with the current literature, evaluating students' perception of childbirth. **Results:** 484 undergraduate midwifery students (mean age, 20.94±2.35 years) agreed to participate in the study. Approximately 90% of the students reported that they have heard the concept of natural birth. The findings showed that 61% of the students have heard the term of natural birth at the university. The percentages of students who disagree with the presence of the freedom of movement of a pregnant woman, the usefulness of music, bath and massage at birth, the effectiveness of relaxation techniques or entering to water at the body temperature at birth, supporting to other birth positions instead of supine and preference of vertical positions during active delivery, were higher in the first-year midwifery students compared to other students. **Conclusion:** It is recommended that create in-service training programs are created for the student midwives to access up-to-date information after graduation, to provide the integration of the theoretical information given to the students to the clinical environment, and to carry out visual and cohort studies on the subject. In line with the findings obtained from the study, additions can be made to the midwifery education curriculum.

**Keywords:** Midwifery, education, natural birth

***Fizyolojik doğum savunucuları: Türk ebelik öğrencilerinin doğal doğum algıları***

### **ÖZET**

**Amaç:** Bu araştırmanın amacı, ebelik bölümünde öğrenim gören öğrencilerin doğum algısına ilişkin görüşlerini incelemektir. **Yöntem:** Araştırma kesitsel tanımlayıcı tiptedir. Çalışma, araştırmacılar tarafından güncel literatüre uygun olarak hazırlanan ve öğrencilerin doğum algısını değerlendiren Veri Toplama Formu aracılığıyla çevrimiçi anketler kullanılarak gerçekleştirilmiştir. **Bulgular:** 484 ebelik lisans öğrencisi (ortalama yaş, 20,94±2,35 yıl) çalışmaya katılmayı kabul etti. Öğrencilerin yaklaşık %90'ı doğal doğum kavramını duyduklarını bildirmiştir. Bulgular, öğrencilerin %61'inin üniversitede doğal doğum terimini duyduğunu göstermiştir. Gebe kadının hareket özgürlüğünün varlığı, doğumda müzik, banyo ve masajın faydası, doğumda gevşeme tekniklerinin veya vücut sıcaklığında suya girmenin, aktif doğum sırasında sırt üstü pozisyon yerine dikey pozisyon tercihi etkinliğinin doğumlara destek olup olmadığına katılmayan öğrencilerin yüzdeleri ebelik birinci sınıf öğrencilerinde diğer öğrencilere göre daha yüksekti. **Sonuç:** Öğrenci ebelerin mezuniyet sonrası güncel bilgilere ulaşabilmeleri için hizmet içi eğitim programlarının oluşturulması, öğrencilere verilen teorik bilgilerin klinik ortama entegrasyonunun sağlanması, görsel ve kohort çalışmaları yapılması önerilmektedir. Konuyla ilgili çalışmadan elde edilen bulgular doğrultusunda ebelik eğitim müfredatına eklemeler yapılabilir.

**Anahtar Kelimeler:** Ebelik, eğitim, normal doğum

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## INTRODUCTION

Midwifery is one of the oldest professions in history associated with birth, which is the continuation of the human generation, and both the obstetrics and midwifery professions have undergone many changes in the historical process.<sup>1,2</sup> Birth, which means the continuity of living life, is an instinctive act of the female body.<sup>3,4</sup> This action progresses and ends in a healthy way with the female's natural adaptation to the birth process.<sup>5,6</sup> However, the disciplines involved in childbirth, especially with medicalization, adopt the pattern of fitting or fitting rather than conforming to birth. Although the midwifery profession is also influenced by the medical world, the basic approach to pregnancy and childbirth today; that childbirth is a physiological process and requires little medical intervention.<sup>1,7,8</sup>

While the midwifery profession, which exists with the act of birth, adopts the instinctive process of birth, midwifery instills this professional understanding to undergraduate students. However, Birth has changed from midwife-center to physician-centered care in its historical process and has undergone some changes in its meaning.<sup>4</sup> As a large part of the world, especially in Turkey is advancing reproductive health professionals in the management of an action physician.<sup>9-11</sup> Today's understanding adopts the process of recovering the nature of birth. It offers natural birth and pregnant-centered education models to its students in the midwifery profession, undergraduate education.<sup>12,13</sup>

Midwifery students receive education on birth since the first years of their education. This education coincides with birth and women-centered care.<sup>14</sup> Students are trained to continue their birth as a physiological action and to their nature throughout their theoretical education. However, the situation does not overlap when they try to put theoretical knowledge into practice in clinical areas. In a study conducted, they stated that midwifery students gained knowledge about natural birth from school but they knew that they were practically incomplete in this regard.<sup>15</sup> The evidence is that the education they receive and the differences in clinical areas affect students' perceptions of birth perception.<sup>16</sup> Students in a study conducted in Turkey with the training they received ideas about the birth of perception reported that influenced in a positive way. The same group of students have associated their views about birth in a hospital environment adversely and birth as a painful event.<sup>17-19</sup> It is an important opportunity for midwives who support natural birth and graduate with the necessary education in order to use their preferences in the direction of natural birth.<sup>5,6,20</sup> Natural birth is gaining more and more importance in our country recently.<sup>21,22</sup>

The midwifery profession adopts the purpose of training professional midwives who adopt and

implement the philosophy of natural birth and the importance of woman-centered care.<sup>10,11</sup> However, midwifery students go through many positive and negative events about childbirth from when they start their undergraduate education to when they step into their professional life. In fact, the theoretical training that students receive and the practical training they experience in the clinical field contradict each other in terms of perception of birth. This contradiction affects the Midwifery students' opinions about birth.<sup>10-12</sup> The training of midwifery students with this aim is very important in terms of reducing negative environments in practice and having a positive birth experience for women.<sup>13</sup> For this reason, this research was carried out to examine the views of midwifery students about the perception of birth, which will be a guide in natural birth in the future.

## METHOD

### Study Design

A cross-sectional study was performed in 2020. STROBE Notification was used in planning, implementation and reporting of the study design.<sup>23</sup> The research was carried out with midwifery students at two University in Istanbul between 2020-2021. The data were obtained via Google survey on the online platform. Between April and May when the study was conducted, students who were; volunteering to participate in the study and studying in midwifery were included. In the study, students who were; who did not want to participate in the study, receiving high school education in the field of health, full-time midwives in clinical areas were excluded from the study. The universe of the study consisted of 540 midwifery students who received a Midwifery Undergraduate education at a foundation and a public university. Although it was desired to reach the entire population, 26 students did not want to participate in the research and 30 students were not included in the research because their forms were incompletely filled. The research was carried out with 484 midwifery students.

### Variables and Instrument

The data were obtained by using the "Data Collection Form" created by the researchers by scanning the literature.<sup>12,13,17,20</sup> The "Data collection form" consists of 41 questions. In the form, six questions are about birth information and 30 statements are about determining their opinions about birth. 30 items measuring their views on birth were tested by showing the Cronbach  $\alpha$  coefficient  $> 0.7$ , and the internal consistency was found to be 0.94. First, a pilot questionnaire was applied and the data obtained were included in the study since there was no need for revision (adding or removing questions).

## Data Collection Process

The research link was sent online by the researchers to the representatives at each grade level in both universities. The link remained active for one month, and the data collection process was completed at the end of one month. An informed consent form was added to the first page of the online questionnaires and the women were informed about the purpose and confidentiality of the research. Women who signed the "I agree" option at the end of the first page accepted that their consent was obtained and could proceed to the next page, while those who chose the "I do not agree" option were not allowed to answer the survey. In addition, students were free to participate, and no benefits or penalties were promised.

## Statistical Analysis

First of all, it was checked whether the questionnaires were complete or not. Given that the missed items were less than 1%, they were all eligible. Statistical Package for Social Science (SPSS) version 21.0 for Windows software (SPSS, Inc., Chicago, IL, USA) was used for all statistical analysis. Before the statistical analysis, the Kolmogorov – Smirnov test was used to assess the distribution of the data. Demographic data were compared among the four groups by one-way analysis of variance for continuous variables and chi-squared test for categorical variables. Descriptive statistics, including frequency, the percentage for nominal variables, and mean and standard deviation for continuous variables were calculated. A chi-squared test was used to analyze the differences in terms of thoughts and perceptions of natural birth among the groups. The significance level was set as  $p < 0.05$ .

## Ethical Aspect of the Research

Before starting to collect data, ethics committee approval (Date: 18.05.2020; Ethics committee number: 68) was obtained. During the research, the Helsinki Declaration rules were followed. Students were

voluntarily asked to participate in the research and no incentives were offered to them. The survey was anonymous and students were able to quit whenever they wanted. In each midwifery program, links were collected by sharing them in a virtual environment to ensure that students participate free of charge not to be under the pressure of teachers.

## RESULTS

Four hundred and eighty-four undergraduate midwifery students (mean age,  $20.94 \pm 2.35$  years) agreed to participate in the study. 101 of the participants were the first-year midwifery students, 116 of the participants were second-year midwifery students, 156 of participants were third-year midwifery students, and 101 of the participants were fourth-year midwifery students. Demographic data and characteristics in the four groups are shown in Table 1. Midwifery 4th grade students ages and it was seen that the students were related to the place of residence. ( $p=0.001$  and  $p=0.004$ , respectively). However, the other demographic variables were not significantly different among groups ( $p>0.05$ ).

Approximately 90% of the students reported that they have heard the concept of natural birth. Ninety-two students (82.9%) in Group 1, 99 students (85.3%) in Group 2, 145 students (92.9%) in Group 3, and 99 students (98%) reported that they have heard the concept of natural birth ( $p=0.001$ ). The percentage of students, who reported that they have heard the concept of natural birth, was increasing from first-year students to fourth-year students. The findings showed that 61% of the students have heard the term of natural birth at the university. Besides, the findings showed that only 43.2% of students reported out that they received training about natural birth. Also, 425 students (87.8%) reported that midwifery should lead to the birth process. Twenty-nine students reported that the doctor should lead to the birth process while thirty students reported that the pregnant woman should lead to the birth process (Table 1).

**Table 1. Demographic data and characteristics in the groups**

Variables	Groups				p
	Group 1 (n=111) Mean±SD	Group 2 (n=116) Mean±SD	Group 3 (n=156) Mean±SD	Group 4 (n=101) Mean±SD	
Age (years)	19.51±2.05	20.68±2.45	21.27±1.55	22.31±2.65	0.001**
Marriage status					
Single, never married	111 (100)	113 (97.4)	152 (97.4)	100 (99)	0.31
Married	-	3 (2.6)	4 (2.6)	1 (1)	
Residence					
Village	7 (6.3)	5 (4.3)	7 (4.5)	9 (8.9)	0.50
Town	3 (2.7)	3 (2.6)	9 (5.8)	5 (5)	
City	101 (91)	108 (93.1)	140 (89.7)	87 (86.1)	
Currently live with another person					
Family	67 (60.4)	76 (65.5)	103 (66)	72 (71.3)	0.004*
Alone	1 (0.9)	1 (0.9)	6 (3.8)	3 (3)	
Relative	3 (2.7)	4 (3.4)	8 (5.1)	9 (8.9)	
Roommate	36 (32.4)	30 (25.9)	25 (16)	16 (15.8)	
Friend	4 (3.6)	5 (4.3)	14 (9)	1 (1)	

**Table Descriptions:**  
Abbreviations:  
F, female; M, male; n, number; SD, standard deviation.  
\*Chi-squared test; significance level set at  $<0.05$ .  
\*\*One-way analysis of variance (one-way ANOVA); significance level set at  $<0.05$ .

**Table 2. The differences between “agree” and “disagree” responders in terms of thoughts and perceptions of natural birth among the groups**

Thoughts and Perceptions	Response	Groups				p
		Group 1 (n=111)	Group 2 (n=116)	Group 3 (n=156)	Group 4 (n=101)	
		n (%)	n (%)	n (%)	n (%)	
Delivery should start spontaneously	Agree	100 (90.1)	111 (95.7)	150 (96.2)	96 (95)	0.15
	Disagree	11 (9.9)	5 (4.3)	6 (3.8)	5 (5)	
The pregnant woman should have freedom of movement at birth.	Agree	96 (86.5)	110 (94.8)	149 (95.5)	97 (96)	<b>0.01</b>
	Disagree	15 (13.5)	6 (5.2)	7 (4.5)	4 (4)	
Each birth is specific to pregnant woman.	Agree	97 (87.4)	111 (95.7)	151 (96.8)	97 (96)	<b>0.006</b>
	Disagree	14 (12.6)	5 (4.3)	5 (3.2)	4 (4)	
The pregnant woman should give birth in a safe environment.	Agree	103 (92.8)	113 (97.4)	151 (96.8)	97 (96)	0.29
	Disagree	8 (7.2)	3 (2.6)	5 (3.2)	4 (4)	
The pregnant woman is the first decision-maker on her birth.	Agree	94 (84.7)	104 (89.7)	142 (91)	81 (80.2)	0.06
	Disagree	17 (15.3)	12 (10.3)	14 (9)	20 (19.8)	
Pregnancy and labor are not disease.	Agree	103 (92.8)	113 (97.4)	151 (96.8)	97 (96)	0.29
	Disagree	8 (7.2)	3 (2.6)	5 (3.2)	4 (4)	
Birth is a natural, normal and healthy function of the body.	Agree	103 (92.8)	113 (97.4)	151 (96.8)	98 (97)	0.24
	Disagree	8 (7.2)	3 (2.6)	5 (3.2)	3 (3)	
Both prenatal support and information are effective and important in the choice of the delivery method of a pregnant woman.	Agree	103 (92.8)	114 (98.3)	151 (96.8)	97 (96)	0.18
	Disagree	8 (7.2)	2 (1.7)	5 (3.2)	4 (4)	
Emotional and physical support should be given at birth.	Agree	104 (93.7)	112 (96.6)	151 (96.8)	97 (96)	0.61
	Disagree	7 (6.3)	4 (3.4)	5 (3.2)	4 (4)	
It is useful to use techniques such as music, bath and massage at birth.	Agree	93 (83.8)	113 (97.4)	150 (96.2)	97 (96)	<b>0.001</b>
	Disagree	18 (16.2)	3 (2.6)	6 (3.8)	4 (4)	
The pregnant woman should take an active role in their labor.	Agree	103 (92.8)	104 (89.7)	145 (92.9)	96 (95)	0.49
	Disagree	8 (7.2)	12 (10.3)	11 (7.1)	5 (5)	
Teaching pregnant woman to cope with labor pain and relaxation techniques enables her to be effective at birth.	Agree	87 (78.4)	106 (91.4)	141 (90.4)	81 (80.2)	<b>0.004</b>
	Disagree	24 (21.6)	10 (8.6)	15 (9.6)	20 (19.8)	
The pregnant woman instinctively knows how to birth.	Agree	94 (84.7)	99 (85.3)	141 (90.4)	93 (92.1)	0.22
	Disagree	17 (15.3)	17 (14.7)	15 (9.6)	8 (7.9)	
Entering to water at the body temperature during the active period of birth can accelerate the birth.	Agree	50 (45)	64 (55.2)	125 (80.1)	87 (86.1)	<b>0.001</b>
	Disagree	61 (55)	52 (44.8)	31 (19.9)	14 (13.9)	
Pregnant woman should be free to eat or drink if there is no risk.	Agree	103 (92.8)	109 (94)	151 (96.8)	96 (95)	0.50
	Disagree	8 (7.2)	7 (6)	5 (3.2)	5 (5)	
Any unnecessary intervention to the pregnant woman should be avoided.	Agree	32 (28.8)	64 (55.2)	105 (67.3)	42 (41.6)	<b>0.001</b>
	Disagree	79 (71.2)	52 (44.8)	51 (32.7)	59 (58.4)	
Opening the amniotic sac is an unnecessary intervention for the birth process.	Agree	76 (68.5)	88 (75.9)	142 (91)	93 (92.1)	<b>0.001</b>
	Disagree	35 (31.5)	28 (24.1)	14 (9)	8 (7.9)	
Instead of the supine position, other positions should be supported at birth.	Agree	85 (76.6)	103 (88.8)	150 (96.2)	97 (96)	<b>0.001</b>
	Disagree	26 (23.4)	13 (11.2)	6 (3.8)	4 (4)	
Vertical positions such as standing, walking, squatting should be preferred during active delivery.	Agree	96 (86.5)	112 (96.6)	150 (96.2)	97 (96)	<b>0.002</b>
	Disagree	15 (13.5)	4 (3.4)	6 (3.8)	4 (4)	
The baby should be given to the mother's lap as soon as possible after birth.	Agree	85 (76.6)	106 (91.4)	146 (93.6)	98 (97)	<b>0.001</b>
	Disagree	26 (23.4)	10 (8.6)	10 (6.4)	3 (3)	
The baby should be breastfed as soon as possible after birth.	Agree	84 (75.7)	84 (72.4)	130 (83.3)	93 (92.1)	<b>0.001</b>
	Disagree	27 (24.3)	32 (27.6)	26 (16.7)	8 (7.9)	
Delivery should be in a dimly lit environment.	Agree	92 (82.9)	100 (86.2)	143 (91.7)	93 (92.1)	0.07
	Disagree	19 (17.1)	16 (13.8)	13 (8.3)	8 (7.9)	
It should be waiting for the beat of the umbilical cord to the end to cut the umbilical cord.	Agree	45 (40.5)	65 (56)	89 (57.1)	35 (34.7)	<b>0.001</b>
	Disagree	66 (59.5)	51 (44)	67 (42.9)	66 (65.3)	
Episiotomy does not affect expanding the birth canal and preventing tears.	Agree	89 (80.2)	102 (87.9)	148 (94.9)	95 (94.1)	<b>0.001</b>
	Disagree	22 (19.8)	14 (12.1)	8 (5.1)	6 (5.9)	
It is unnecessary to perform episiotomy routinely.	Agree	102 (91.9)	110 (94.8)	150 (96.2)	96 (95)	0.49
	Disagree	9 (8.1)	6 (5.2)	6 (3.8)	5 (5)	
Skin-to-skin contact should be made before or after the umbilical cord is cut.	Agree	104 (93.7)	111 (95.7)	151 (96.8)	97 (96)	0.67
	Disagree	7 (6.3)	5 (4.3)	5 (3.2)	4 (4)	
Skin-to-skin contact increases bonding and breast milk release.	Agree	98 (88.3)	101 (87.1)	135 (86.5)	94 (93.1)	0.41
	Disagree	13 (11.7)	15 (12.9)	21 (13.5)	7 (6.9)	
The pregnant woman should get family support at birth.	Agree	100 (90.1)	111 (95.7)	149 (95.5)	95 (94.1)	0.23
	Disagree	11 (9.9)	5 (4.3)	7 (4.5)	6 (5.9)	
There should be a relationship that accepts the woman's autonomy between the midwife and pregnant woman.	Agree	103 (92.8)	111 (95.7)	151 (96.8)	97 (96)	0.45
	Disagree	8 (7.2)	5 (4.3)	5 (3.2)	4 (4)	
The pregnant woman should be allowed to express their feelings clearly at birth.	Agree	100 (90.1)	112 (96.6)	150 (96.2)	97 (96)	0.08
	Disagree	11 (9.9)	4 (3.4)	6 (3.8)	4 (4)	
Birth is a part of nature, it should not be suppressed.	Agree	100 (90.1)	106 (91.4)	143 (91.7)	97 (96)	0.40
	Disagree	11 (9.9)	10 (8.6)	13 (8.3)	4 (4)	

**Table Descriptions:** Group 1: First-year midwifery students; Group 2: Second-year midwifery students; Group 3: Third-year midwifery students; Group 4: Fourth-year midwifery students. Abbreviations: n, number. \*Chi-squared test; significance level set at <0.05

Table 2 demonstrates the differences between “agree” and “disagree” responders in terms of thoughts and perceptions of natural birth according to the years of education. The percentages of students who disagree with the presence of the freedom of movement of a pregnant woman, the usefulness of music, bath and massage at birth, the effectiveness of relaxation techniques or entering to water at the body temperature at birth, supporting to other birth positions instead of supine and preference of vertical positions during active delivery, were higher in the first-year midwifery students compared to other students ( $p=0.01$ ,  $p=0.001$ ,  $p=0.004$ ,  $p=0.001$ ,  $p=0.001$ , and  $p=0.002$ , respectively) (Table 2).

## DISCUSSION

Natural deliveries that begin spontaneously without any intervention, actively participate in the birth of the pregnant woman, actively secrete natural hormones, do not intervene unless necessary, do not cut the cord until the beating stops in the postpartum period, where the baby is born as soon as possible, and the baby is kept in the breast of the naked mother and the attachment process is as long as possible.<sup>18,24</sup> Approximately 90% of the students reported that they have heard the concept of natural birth. In the study of Egitimli (2009), contrary to the findings of our study, it was reported that less than half of the participants knew about natural birth and the majority of the students who knew were third-year students.<sup>5</sup> In a study conducted in obstetrics clinics, it was found that the knowledge level of midwives and nurses about natural birth was quite low.<sup>17</sup> The fact that the research findings are different from each other can be related to the fact that natural birth is also on the agenda today and that students become more aware of the first grade.

Education, trust, privacy, freedom of movement, respect for time, physical and emotional support are required to provide natural birth.<sup>17,18,24,27</sup> Percentage of students who do not participate in the freedom of movement of a pregnant woman, the usefulness of music at birth, the effectiveness of bath and massage, the effectiveness of relaxation techniques or the body temperature at birth, the support of other births, is higher than the other students in the first year midwifery students ( $p<0.05$ ). According to World Health Organization (1996) and Lamaze International (2007), six evidences including the self-onset of labor, freedom of movement of the expectant mother during the birth process, emotional and physical support to the pregnant woman, avoiding any unnecessary interventions and supporting other positions instead of backstroke at birth and the coexistence of the mother and baby after birth stated that with the implementation of the based practice, birth action for healthy mother and baby can be carried out with the least possible intervention and safely.<sup>25,26</sup> In addition, progressive muscle relaxation, breathing, music, focus, distraction,

daydreaming, etc. are used to cope with pain to ensure positive birth experience. WHO, suggests manual relaxation techniques and manual techniques such as massage or local hot application (hot pad / bag / compress application etc.).<sup>28</sup>

World Health Organization natural birth; It defines every woman's unique birth experience, including health personnel with courtesy, technical equipment and skills, and the continuity of the practices and emotional support provided by the supporter at birth, giving birth to a healthy baby in a clinically and psychologically safe environment.<sup>28</sup> The vast majority of students participating in the study describe that births are peculiar to pregnant, and that unnecessary routine interventions such as amniotomy and episiotomy should be avoided. It was observed that the findings in this direction increased from the first grade to the last grade and it was thought that the information was shaped in parallel with the education curriculum. Another study conducted for midwives and nurses working in the clinic; While most of the participants considered lithotomy, perineum shaving and enema necessary, it was reported that they define routine episiotomy and restriction of oral intake as unnecessary application.<sup>28,29</sup> Having different findings may be related to the fact that students have access to current literature information in their undergraduate education, after graduation information is not updated sufficiently in line with the literature.

Birth refers to the separation from the quiet, dark and warm environment in the womb for months. Adaptation to the new environment of the newborn physically and emotionally is very important in the future. For this reason, the mother and baby should be contacted with awning as soon as possible after birth and breastfeeding should be initiated.<sup>28,29</sup> About 90% the students agreed that the baby should be given to the mother's lap as soon as possible after birth and that the baby should be breastfed as soon as possible after birth ( $p=0.001$ ). In a systematic review where Moore et al.<sup>15</sup> examined the effects of early tincture contact on mother and newborn, it was stated that breastfeeding was more successful in mothers and that it was longer after discharge, and physiological parameters were better, blood sugars were higher, and body temperatures were more normal for newborns. It was determined<sup>16</sup> Lamaze and WHO suggest that the mother and baby should be brought together with sensual contact in the early period after birth and that the delivery environments should be prepared accordingly.<sup>26,28</sup> It is determined that there is no need for unnecessary interventions in natural births that are created on the agenda today and accompanied by midwives, as well as mother-baby communication, early tincture contact and breastfeeding started in a much shorter time.<sup>7,8</sup> As a result of the study, it is seen that almost all of the students participating in the research overlap with the literature.



## CONCLUSION AND RECOMMENDATIONS

The awareness of natural birth increases among midwifery students participating in the study as they approach the final class. Knowing and participating in the evidence-based practices required for the provision of natural birth shows that the students are related to their classes, and in the final year, almost all of the students agree that these practices are applied in a natural birth. On the other hand, students state that the staff who will provide natural birth and practice will be midwives. It is recommended to create in-service training programs for the student midwives to access up-to-date information after graduation, to provide the integration of the theoretical information given to the students to the clinical environment, and to carry out visual and cohort studies on the subject. In line with the findings obtained from the study, additions can be made to the midwifery education curriculum.

### Author contributions

Study idea/design: AYK, FŞB

Data collection: AYK, FŞB, NG

Data analysis and interpretation: AYK, FŞB

Literature review: AYK, FŞB

Writing of the article: AYK, FŞB

Critical review: AYK, FŞB, NG

Final approval and responsibility: AYK, FŞB, NG

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