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### Healthcare Worker and Nonhealthcare Worker Mothers' Experiences of Vaginal Examination in Labor and Their Views on Birth Satisfaction

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#### ABSTRACT

**Objective:** Birth satisfaction is an extremely important issue for both the woman's own health, the health of the baby, and positive family relationships. This study was conducted to reveal the opinions of healthcare and nonhealthcare worker mothers about vaginal examination during labor and their birth satisfaction. **Materials and Methods:** The sample of this cross-sectional and comparative study consisted of 408 mothers who gave vaginal birth between the ages of 18-45. Demographic Information Form, Birth Satisfaction Scale-Short Form, and Women's Vaginal Examination Experiences at Birth Scale were used to collect data. Independent sample t-test, one-way ANOVA and one-way MANOVA were used to analyze the data. **Results:** Birth satisfaction and vaginal examination experience were found to be associated with education level, occupation, number of pregnancies, number of live births, antenatal education, number of vaginal examinations in the last delivery, the person who performed the vaginal examination, the person who delivered the baby and the interventions performed during delivery (amniotomy, artificial labour, fundal pressure, intervention delivery) ( $p<0.05$ ). **Conclusion:** It was observed that mothers who were health care workers had more positive vaginal examination experiences during trauma and higher birth satisfaction than mothers who were not health care workers ( $p<0.05$ ).

**Keywords:** Birth, Birth Experience, Satisfaction, Vaginal examination.

### Sağlık Çalışanı Olan ve Olmayan Annelerin Travayda Yapılan Vajinal Muayene Hakkındaki Görüşleri ve Doğum Memnuniyetleri

#### ÖZ

**Amaç:** Doğum memnuniyeti hem kadının kendi sağlığı hem bebeğin sağlığı hem de olumlu aile ilişkileri açısından son derece önemli bir konudur. Bu çalışma, sağlık çalışanı olan ve olmayan annelerin travayda vajinal muayeneye ilişkin görüşlerini ve doğum memnuniyetlerini ortaya koymak amacıyla yapılmıştır. **Gereç ve Yöntemler:** Kesitsel ve karşılaştırmalı olan bu çalışmanın örneklemini 18-45 yaş aralığında vajinal doğum yapan 408 anne oluşturmuştur. Veri toplamak için Demografik Bilgi Formu, Doğum Memnuniyet Ölçeği-Kısa Formu ve Kadınların Travayda Vajinal Muayene Deneyimleri Ölçeği kullanılmıştır. Verilerin analizinde bağımsız örneklem t-testi, tek yönlü ANOVA ve tek yönlü MANOVA analizi uygulanmıştır. **Bulgular:** Doğum memnuniyeti ve vajinal muayene deneyiminin; eğitim seviyesi, meslek, gebelik sayısı, canlı doğum sayısı, antenatal eğitim, son doğumda vajinal muayene sayısı, deneyimi ve vajinal muayeneyi yapan kişi, doğumu yaptıran kişi ve doğumda uygulanan girişimler (amniyotomi, suni sancı, fundal basınç, müdahaleli doğum) ile ilişkili olduğu bulunmuştur ( $p<0.05$ ). **Sonuç:** Sağlık çalışanı olan annelerin, sağlık çalışanı olmayan annelere göre travayda vajinal muayene deneyimlerinin daha olumlu ve doğum memnuniyetlerinin daha yüksek olduğu görülmüştür ( $p<0.05$ ).

**Anahtar Kelimeler:** Doğum, Doğum Deneyimi, Memnuniyet, Vajinal muayene.

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## INTRODUCTION

Satisfaction with birth is an important indicator in evaluating the birth experience. Birth satisfaction is an extremely important issue in terms of the woman's own health, the health of the baby, and positive family relationships. Determining women's satisfaction with the birth experience is important because it is an indicator of maternal care quality and the well-being of the newborn and mother. Birth satisfaction is affected by support for pregnant women in labor, minimal interventions during labor, stress levels, and readiness for delivery (Hinic, 2017; Serhatlıoğlu & Karahan, 2018). Birth dissatisfaction poses risks such as obstetric interventions and emergency cesarean delivery, postpartum hemorrhage, delayed mother-baby bonding, difficulty in adapting to the role of motherhood, infant neglect/abuse, and short- or long-term lactation problems (Weeks et al., 2017; Serhatlıoğlu & Karahan, 2018). In the literature; sociodemographic and obstetric characteristics, prenatal education status, attitudes and communication of health workers, practices such as episiotomy, oxytocin application, enema, amniotomy and fundal pressure have been reported to affect birth satisfaction. In addition, vaginal examination, which is widely used to evaluate the birth process, affects birth satisfaction. When the studies investigating the experiences and feelings of women about vaginal examination in labor are examined, it can be stated that women describe vaginal examination as a necessary but unpleasant, uncomfortable, embarrassing and painful condition (de Klerk et al., 2018; Dabagh-Fekri et al., 2020). Performing vaginal examinations at frequent intervals during delivery, not showing the necessary care during this practice, being harsh, hasty, and insensitive, not establishing verbal communication with the patient, the examination being performed by a health personnel of opposite sex, examination position, instruments used, previous negative examination experiences, lack of attention to privacy, and lack of examination experience cause women to feel pain, discomfort, anxiety, fear, shame, guilt, and powerlessness and decrease their birth satisfaction (Borders et al., 2012; Hassan et al., 2012; Downe et al., 2013; Bonilla-Escobar et al., 2016; El-Moniem & Mohamady, 2016). Considering that birth is a multifaceted experience for women, the negative attitudes encountered during the birth process, the high number of vaginal examinations, traumatic vaginal experiences, the negative attitudes of health personnel and the dissatisfaction with birth, the experiences and opinions of women who are health professionals such as nurses, midwives and doctors on this issue are considered as remarkable research. For this reason, in this study, the views of health professionals and non-health professionals on vaginal examination experiences during labour and satisfaction with childbirth were compared.

## MATERIALS AND METHODS

### Study type

This was a cross-sectional and comparative study based on the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines (Von Elm et al., 2008).

### Study group

The sample of this study, which was conducted to compare the views of mothers who were health personnel (n=204) and mothers who were not health personnel (n=204) about vaginal examination in labor and their satisfaction with delivery, consisted of 408 mothers who gave birth vaginally between the ages of 18-45. To determine the sample size, a power analysis was performed considering the studies evaluating the birth satisfaction, and the power of the study was calculated in the G\*Power (v3.1.7) program. The sample size was calculated as 378 using G\*Power analysis with an effect size of 0.79,  $\alpha=0.05$ , and 98% power calculation. To increase the power of the research, it aimed to reach more women, and the sample of the study consisted of a total of 408 women who agreed to work with the snowball sampling method. The study included mothers who were 18-45 years old and who gave birth vaginally. Volunteers are required to answer every question to complete the survey in the google form, and therefore no data loss has occurred. Data were collected online using Google Forms between September and December 2022.

### Research questions

- 1-What are the factors affecting the Vaginal Examination in Trauma Experience of mothers who are health workers and mothers who are not health workers?
- 2-What are the factors affecting the birth satisfaction of mothers who are health workers and mothers who are not health workers?
- 3-How are the traumatic vaginal examination experiences and birth satisfaction of mothers who are health workers?
- 4-How are the traumatic vaginal examination experiences and birth satisfaction of mothers who are not health care workers?

### Variables

The Demographic Information Form was used to question information such as age, education level, occupation, total number of pregnancies and births, the status of receiving childbirth preparation education, thoughts about the last vaginal examination and the person who delivered the last birth. Birth Satisfaction Scale-Short Form (BSS-SF) was used to question labour satisfaction, Women's Experiences of Vaginal Examination in Labour Scale (WEVELS) was used to question the experience of vaginal examination in labour.

### Procedures

The Demographic Information Form, the Birth Satisfaction Scale-Short Form (BSS-SF), and the

Women's Experiences of Vaginal Examination in Labor Scale (WEVELS) were used to collect data.

#### **Descriptive information form**

The descriptive information form prepared by the researcher within the scope of the relevant literature included about the socio-demographic and obstetric characteristics of the women who had vaginal delivery, their recent delivery history and their vaginal examination experiences in trauma (Afacan, 2018; Göncü, 2015; Serhatlıoğlu & Karahan, 2018).

#### **Birth Satisfaction Scale-Short Form (BSS-SF)**

The scale was revised by Martin and Martin in 2013. The revised version, the Birth Satisfaction Scale-Short Form, included 10 items on a Likert scale. The minimum and maximum scores that can be obtained from the scale are 0 and 40, respectively. Higher scores indicate higher levels of birth satisfaction. Turkish adaptation of the scale was conducted by Göncü (2015). The cronbach alpha value of the scale was reported as 0.74. In this study, Cronbach alpha value was found to be 0.76.

#### **Women's Experiences of Vaginal Examinations in Labor Scale (WEVELS)**

The scale was developed by Lewin et al. (2005) to investigate women's experiences of vaginal examination in labor. The scale consists of 20 items on a five-point Likert type scale. The scores for each item are summed, and a total score between 20-100 is obtained. Higher scores indicate higher levels of satisfaction with vaginal examination in labor. The Turkish adaptation of the scale was conducted by Afacan (2018). The cronbach alpha value of the scale was reported as 0.85. In this study, Cronbach alpha value was found to be 0.83.

#### **Statistical analysis**

This data was analyzed using SPSS software (version 26.0). Numbers, percentages, means, medians, and standard deviations were calculated in the analysis of sociodemographic data. Normal distribution was tested using the Kolmogorov-Smirnov test. For data with a normal distribution, an independent samples t test was used for two groups, and one-way ANOVA was performed for three or more groups. The effect of some independent variables on women's experiences of vaginal examinations in labor and birth satisfaction was analyzed using one-way MANOVA. The results were evaluated at a 95% confidence interval, and the level of significance was set at  $p < 0.05$ .

**Ethical considerations** Written ethical approval was obtained from the Istanbul Atlas University for the conduct of the study (Date: 13.01.2022, Approval no: E-22686390-050.01.04-1188). In addition, women who agreed to participate in the study were asked to fill out an informed consent form, which was prepared in accordance with the principles of the

Declaration of Helsinki and included information about the purpose of the study.

#### **RESULTS**

As a result of the analysis, it was determined that 24.0% of the women were primary school graduates, 20.6% were high school graduates and 55.4% were university graduates. It was also determined that 37.5% of the women were housewives, 12.5% were workers, 25.2% were nurses, 16.9% were midwives and 7.8% were doctors. The analysis revealed that 31% of the participants had one pregnancy and 37.0% had a live birth. There was an important difference in vaginal examination experiences and birth satisfaction by number of pregnancies and the total number of live births ( $p < 0.05$ ). A total of 22.5% of the women stated that all vaginal examinations during their last labor were disturbing. The women who do not feel uncomfortable during a vaginal examination were found to have higher vaginal examination experience and birth satisfaction mean scores ( $p < 0.05$ ) (Table 1).

One-way MANOVA analysis was performed to determine how experience of vaginal examination during birth and birth satisfaction with labour differed according to occupation. Vaginal examination experiences and birth satisfaction were used as the dependent variables, and occupation was used as the independent variable. Normality, linearity, and variance matrices, which are the assumptions required to carry out this test, ensured homogeneity. The analysis revealed that the type of occupation created significant differences in both dependent variables ( $F = 4.617$ ;  $p = 0.010$ ) (Table 2).

According to the analysis, it was determined that the arrival of amniotic fluid at the beginning of labor, the number of vaginal examinations, pressure applied to the fundus region, artificial pain during labor, amniotomy and the last delivery method affected the mothers' vaginal examination experiences and birth satisfaction levels (Table 3).

#### **DISCUSSION**

This study investigated mothers' birth and vaginal examination experiences and birth satisfaction by posing questions about the interventions made during the birth process. Vaginal examination experiences and birth satisfaction levels were compared according to the sociodemographic and obstetric characteristics of the mothers. According to the results of this study, it was found that birth satisfaction and vaginal examination experience were associated with the number of pregnancies, number of live births, antenatal education, the person who performed vaginal examination at the last birth, the person who delivered the baby and the definition of vaginal examination at birth.

**Table 1. Distribution of total Women's Experiences of Vaginal Examinations in Labor Scale (WEVELS) and Birth Satisfaction Scale–Short Form (BSS-SF) mean scores across characteristics related to labor/pregnancy (n=408).**

<b>Demographic and obstetric characteristics</b> Age Mean±SD: 31.28±5.32	<b>N</b>	<b>%</b>	<b>WEVELS</b> <b>Total Score</b> <b>Mean±SD</b>	<b>BSS-SF</b> <b>Total Score</b> <b>Mean±SD</b>
<b>Education level</b>				
Primary school <sup>1</sup>	98	24.0	61.62±10.42	20.13±4.98
High school <sup>2</sup>	84	20.6	63.27±12.14	21.42±5.67
University <sup>3</sup>	226	55.4	66.35±11.77	22.31±6.08
Test/p (value)			F=6.409 p=0.002	F=3.534 p=0.030
Post Hoc Test/Bonferroni			3>1 p=0.002	3>1, 3>2 p=0.028
<b>Occupation</b>				
Housewife <sup>1</sup>	153	37.5	59.76±9.87	19.65±6.98
Workers <sup>2</sup>	51	12.5	61.24±12.47	19.25±5.89
Nurse <sup>3</sup>	103	25.2	66.36±13.08	23.08±4.26
Midwives <sup>4</sup>	69	16.9	68.40±14.01	22.01±5.27
Doctor <sup>5</sup>	32	7.8	70.41±16.98	24.98±6.26
Test/p (value)			F=9.229 p=0.000	F=8.369 p=0.000
Post Hoc Test/Bonferroni			5>1, 5>2, 4>1, 4>2, 3>1, p<0.05	5>1, 5>2, 3>1, 3>2, p<0.05
<b>Total number of pregnancies</b>				
One pregnancy <sup>1</sup>	127	31.1	67.28±13.32	22.48±6.29
Two pregnancies <sup>2</sup>	120	29.4	61.59±11.32	20.93±5.73
Three pregnancies <sup>3</sup>	105	25.7	65.27±10.42	21.12±4.92
Four and more pregnancies <sup>4</sup>	56	13.7	63.57±9.16	20.95±5.17
Test/p (value)			F=5.295, p=0.001	F=0.489, p=0.030
Post Hoc Test/Bonferroni			1>2, p=0.001	-
<b>Total number of live births</b>				
One <sup>1</sup>	151	37.0	67.27±12.89	21.36±6.35
Two <sup>2</sup>	133	32.6	61.58±11.21	21.44±5.86
Three <sup>3</sup>	89	21.8	64.81±10.27	21.09±4.25
Four and above <sup>4</sup>	35	8.6	63.80±8.67	20.91±4.68
Test/p (value)			F=5.849, p=0.001	F=0.130, p=0.942
Post Hoc Test/Bonferroni			1>2, p=0.001	-
<b>How would you describe the vaginal examination experience at your last labor?</b>				
I wasn't disturbed <sup>1</sup>	81	19.9	66.73±12.30	23.05±5.37
I didn't feel much discomfort <sup>2</sup>	71	17.4	68.54±11.40	23.25±4.97
It was uncomfortable <sup>3</sup>	80	19.6	63.21±8.910	19.55±6.52
I was only disturbed in the period close to labor <sup>4</sup>	84	20.6	62.97±11.82	20.26±4.39
Vaginal examinations during labour were uncomfortable <sup>5</sup>	92	22.5	62.30±12.70	20.61±5.85
Test/p (value)			F=4.287, p=0.002	F=7.399, p=0.000
Post Hoc Test/Bonferroni			2>4, 1>3, 2>5, p<0.05	1>3, 2>3, 1>4, 2>4, 1>5, 2>5, p<0.05
<b>Health personnel who performed the vaginal examinations at your last labor</b>				
Only midwife <sup>1</sup>	125	30.6	65.76±14.26	21.77±6.19
Mostly midwives, less often doctor <sup>2</sup>	173	42.4	62.80±10.52	21.03±5.20
Mostly doctor, less often midwife <sup>3</sup>	46	11.3	63.70±9.09	18.48±4.80
Only doctor <sup>4</sup>	64	15.7	67.72±9.99	23.08±5.47
Test/p (value)			F=3.439, p=0.017	F=6.634, p=0.000
Post Hoc Test/Bonferroni			4>1, p=0.024	1>3, 2>3, 4>3, 4>1, p<0.05

**Table 1. (continue) Distribution of total Women's Experiences of Vaginal Examinations in Labor Scale (WEVELS) and Birth Satisfaction Scale–Short Form (BSS-SF) mean scores across characteristics related to labor/pregnancy (n=408).**

Demographic and obstetric characteristics	N	%	WEVELS Total Score Mean±SD	BSS-SF Total Score Mean±SD
<b>Having received birth preparation training before?</b>				
Yes	118	28.8	64.20±9.21	23.46±5.69
No	290	72.2	59.35±11.78	19.36±5.30
Test/p (value)			t=2.321, p=0.001	t=1.299, p=0.035
<b>Person who performed the last labor?</b>				
Doctor	220	53.9	66.59±11.54	21.72±5.68
Midwife	188	46.1	62.28±11.46	18.81±5.56
Test/p (value)			t=3.763, p=0.000	t=1.625, p=0.045
<b>Did your water break when your last labor started?</b>				
Yes	202	50.5	65.68±11.81	22.03±5.74
No	206	49.5	63.46±11.53	20.54±5.44
Test/p (value)			t=-1.538, p=0.125	t=-2.687, p=0.008

F= One-Way ANOVA, t= independent samples t

In study, the participants reported that they had negative views about vaginal examination because the healthcare personnel who performed the vaginal examination did not get permission from them before the examination, not communicating positively, failure to respect privacy, were examined by different health personnel each time, and the health personnel did not give information about the examination (Table 1). In similar research results, the most frequently stated expectation of women is; positive communication with health personnel, courteous behavior, informing about the procedure, getting permission before the procedure and respecting privacy (Martin & Fleming, 2011; Borders et al., 2012; Hassan et al., 2012; Bonilla-Escobar et al., 2016; El-Moniem & Mohamady, 2016; Hatamleh et al., 2012). The one-way MANOVA performed in study revealed that healthcare worker mothers had

more positive vaginal examination experiences and higher birth satisfaction than nonhealthcare worker mothers (Table 2). These findings suggest that healthcare worker mothers have more knowledge about labor, vaginal examination, and delivery process than other mothers and that their colleagues have a more positive approach toward them in this process. Before vaginal examination and during labor, the expectations and needs of all women can be revealed, appropriate interventions can be planned, the steps of the procedure can be explained and then implemented, the focus should be on the woman during the procedure, and the privacy of women should be ensured, all of which can turn the vaginal examination into a more positive experience (De Klerk et al., 2016; Dabagh-Fekri et al., 2020; Borders et al., 2012; Hassan et al., 2012; Bonilla-Escobar et al., 2016; El-Moniem & Mohamady, 2016; Downe et al., 2013; Hatamleh et al., 2012).

**Table 2. Comparison of the Women's Experiences of Vaginal Examinations in Labor Scale (WEVELS) and Birth Satisfaction Scale–Short Form (BSS-SF) mean scores of healthcare and nonhealthcare worker mothers (n=408).**

	Independent variables	$\bar{X}$	SD	F (group)	p (group)	F (model)	p (model)	Partial Eta Squared
	Occupation							
WEVELS	Healthcare worker mother	66.81	10.81	8.769	0.003	4.617	0.010*	0.474
	Nonhealthcare worker mother	62.88	12.25					
BSS-SF	Healthcare worker mother	22.90	5.21	4.899	0.027			
	Nonhealthcare worker mother	20.67	5.28					

F= One-way MANOVA

**Table 3. Distribution of mean total scores of Women's Experiences of Vaginal Examination During Labor Scale (WEVELS) and Birth Satisfaction Scale - Short Form (BSS-SF) according to the practices performed at the last birth.**

Practices performed at the last birth	WEVELS Total Score		BSS-SF Total Score	
	Non-healthcare worker (n=204) Mean±SD	Healthcare worker (n=204) Mean±SD	Non-healthcare worker (n=204) Mean±SD	Healthcare worker (n=204) Mean±SD
<b>Did you have amniotic fluid at the time of your last labour?</b>				
Yes	63.65±11.90	66.60±11.46	20.90±5.72	23.63±5.19
No	60.02±12.51	64.99±10.24	20.40±6.24	20.23±4.92
Test/p (value)	t=-1.381 p=0.169	t=-0.916 p=0.361	t=-0.544 p=0.587	t=-3.367 p=0.000
<b>What is the average number of vaginal examinations at your last labor?</b>				
≤4	63.47±13.06	66.75±13.87	21.70±6.12	23.36±6.26
≥5	60.18±10.47	60.74±11.68	19.25±5.98	20.17±5.51
Test/p (value)	t=-2.241 p=0.037	t=-1.676 p=0.001	t=-2.684 p=0.042	t=2.367 p=0.000
<b>Pressure on the fundus region</b>				
Yes	62.56±11.47	65.00±11.03	19.74±5.51	21.32±5.18
No	63.69±14.09	71.69±8.33	23.03±6.52	24.38±4.63
Test/p (value)	t=-0.592 p=0.554	t=-3.552 p=0.000	t=-3.651 p=0.001	t=-3.384 p=0.001
<b>Artificial pain at birth</b>				
Yes	60.92±12.40	60.35±10.12	19.11±5.97	20.38±5.17
No	65.23±11.70	70.02±9.63	22.55±5.46	23.87±5.02
Test/p (value)	t=-2.534 p=0.012	t=-6.846 p=0.000	t=-4.256 p=0.001	t=-3.412 p=0.000
<b>Amniotomy at birth</b>				
Yes	62.68±12.87	65.16±10.81	19.56±7.17	20.13±4.60
No	63.33±11.81	67.61±10.86	21.16±5.02	23.45±5.54
Test/p (value)	t=0.776 p=0.439	t=1.618 p=0.110	t=-0.233 p=0.029	t=3.765 p=0.000
<b>Last type of birth (interventional/ spontaneous)</b>				
Spontaneous	64.38±11.47	67.85±11.71	21.83±5.77	22.37±4.89
Interventional	60.46±15.45	65.74±7.24	19.01±6.95	20.33±5.97
Test/p (value)	t=1.289 p=0.199	t=-1.034 p=0.302	t=.827 p=0.039	t=2.363 p=0.019

t= independent samples t

According to the findings, it was observed that the arrival of amniotic fluid at the beginning of the last birth significantly affected the birth satisfaction of only the mothers who were healthcare workers. It was determined that both the vaginal examination experience was better and the birth satisfaction level was significantly higher in mothers who had 4 or less vaginal examinations during labor (Table 3). Performing vaginal examinations at frequent intervals during delivery, not showing the necessary care during this practice, being harsh, hasty, and insensitive, not establishing verbal communication with the patient, the examination being performed by a health personnel of opposite sex, examination position, instruments used, previous negative

examination experiences, lack of attention to privacy, and lack of examination experience cause women to feel pain, discomfort, anxiety, fear, shame, guilt, and powerlessness and decrease their birth satisfaction (Borders et al., 2012; Hassan et al., 2012; Bonilla-Escobar et al., 2016; El-Moniem & Mohamady, 2016; Downe et al., 2013; Hinic, 2017). Clinically vaginal examinations among the most accepted ways to assess progress during childbirth, but its repetition at shorter intervals has no value. The intrapartum care guide for positive birth experience published by the World Health Organization (WHO) in 2018 indicated that vaginal examinations should be done every 4 hours in the active phase, but that the number of vaginal examinations should be limited in prolonged

amniotic membrane ruptures and prolonged labor, and that vaginal examinations by more than one health personnel at the same/different times for the same woman should be avoided (WHO, 2018). As a result of the analysis conducted in the study, it was determined that applying pressure to the fundus region, giving artificial pain during birth, performing amniotomy and interventional birth decreased birth satisfaction in mothers (Table 3). When the studies were examined; it was reported that women who gave birth with intervention (episiotomy, amniotomy, fundal compression, oxytocin application, vacuum, use of forceps) had lower birth satisfaction compared to women who gave birth spontaneously vaginally and it is seen that it is compatible with our findings (Hinic, 2017; Martin & Martin, 2014; Dencker et al., 2010; Hildingsson et al., 2013; Maskálová et al., 2021; Smarandache et al., 2016; Mortazavi & Mehrabadi, 2022). The current approach in the management of childbirth is not to intervene unless necessary and not to interfere with the process, especially in low-risk pregnant women. In addition, mothers do not want interventions such as induction, amniotomy, vacuum, forceps, episiotomy, and fundal pressure to accelerate or facilitate delivery unless serious problems occur in baby health. These interventions are unexpected for women. In addition, all unnecessary interventions negatively affect the birth experience and birth satisfaction of women (Hinic, 2017; Maskálová et al., 2021; Smarandache et al., 2016; Mortazavi & Mehrabadi, 2022).

#### Study Limitations and Strengths

This is the first national study to compare the labour satisfaction and vaginal examination experiences of women with and without healthcare professionals. This study has several limitations that should be mentioned. Firstly, the data of the present study were collected online. Secondly, the fact that women gave birth in different conditions at different times may affect the generalisability of the data of our study. We recommend that qualitative studies be conducted to examine women's labour satisfaction and vaginal examination experiences in depth.

#### CONCLUSION

In this study revealed that healthcare worker mothers had more positive vaginal examination experiences and higher birth satisfaction than nonhealthcare mothers. As health professionals, midwives and nurses have important responsibilities in protecting and improving women's health. Providing quality care and creating a positive experience that can contribute to overall birth satisfaction should be a common target of healthcare professionals in caring for parturient women. According to the findings, the most important duties of doctors, midwives and nurses working in delivery rooms during the birth process are to meet the physical and psychological needs of pregnant women during labor, to provide them with emotional support, to make them feel that

the care given is unique to them, to help them cope with labor pain and to ensure their cooperation and contribution to ascertain that the labor is as smooth and positive as possible, which all eventually increase birth satisfaction.

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#### Conflict of Interest

It has been declared by the authors that there is no conflict of interest.

#### Author Contributions

**Plan, design:** EŞ, SY; **Material, methods and data collection:** EŞ, SY; **Data analysis and comments:** EŞ, SY; **Writing and corrections:** EŞ, SY.

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#### Ethical Approval

**Committee:** Istanbul Atlas University, Non-invasive Scientific Research Ethics Committee.

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