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Women's Experiences and Frequency of Vaginal Examination during Labour

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ABSTRACT

Objective: Vaginal examinations (VE's) are techniques that are widely used by midwives, nurses or doctors to assess the progress of labor. The present study aimed to determine the women's experiences and frequency of VE during labor.

Methods: A total of 328 women who gave vaginal birth were included in this descriptive study conducted in Turkey between January and October 2019. Data were collected in the first 24 h after birth using the "Personal Information Form" and "The Women's Experiences of Vaginal Examinations in Labour Scale".

Results: VE was performed 4.05±1.72 (range,1–12) times and by 2.41±1.24 (range,1–7) different medical personnel during labor. During VE, women mostly experience fear, pain, and shame. The average score of women on the WEVEL scale was 74.18±10.08 (good level). VE experiences of women to whom information was provided before the procedure, for whom the sex of medical personnel did not matter, whose privacy was protected, and on whom VE was performed by the same medical personnel were more positive; the difference was statistically significant ($p<0.05$).

Conclusion: VE should be performed while considering the sociocultural characteristics of the woman, paying attention to her privacy, only in cases where it is necessary and by the same medical personnel, as much as possible.

Keywords: Labor, Vaginal Examinations, Pain, Privacy, Women's Health

1. INTRODUCTION

Vaginal examination (VE) during labor is performed to determine the color/ smell of the amniotic fluid, the suitability of the pelvic structure for delivery, the effacement and dilatation of the cervix, the presentation and position of the fetus, and the deviations during labor (1,2). The World Health Organization (WHO) recommends that in low-risk women, VE should be performed every 4 h and by the same staff personnel in the active phase of the first stage of labor (3). The National Institute of Health and Clinical Excellence (NICE) concludes that there is no evidence that frequent VE at short intervals is beneficial and that it should be performed when necessary and to facilitate decision-making during active management of delivery (4). However, there are reports that VE is performed at frequent intervals in clinical practices (5,6,7,8,9,10,11,12). In addition, the NICE emphasizes that women are in a different environment during labor and experience pain; therefore, they should be informed about the procedure, and their privacy should be protected (4).

Frequent VE and lack of proper care leads to more pain, discomfort, anxiety, fear, shame, guilt, weakness, and decreased birth satisfaction during this process (7,13,14).

There are limited studies in Turkey examining the frequency of VE during vaginal delivery and the views as well as the feelings of women and their expectations from healthcare staff (15,16,17) Therefore, the present study aimed to investigate the women's experiences and frequency of VE during labor.

2. METHODS

2.1. Participants

This descriptive study was conducted in the education and research hospital of a province in northern Turkey between January and October 2019. This study included 328 women aged between 20 and 45 years with single pregnancy and

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vertex presentation who did not receive epidural analgesia, early membrane rupture, genitourinary infection, and latex allergy as well as those who gave vaginal birth.

2.2. Data collection tools

Data were collected in the first 24 hours after delivery by face-to-face interviews using the "Personal Information Form" (5,6,7,8,9,10,11,12,13) and "The Women's Experiences of Vaginal Examinations in Labor Scale" (18).

Personal Information Form: The form contains five questions related to age, level of education, profession, parite and gestational week, as well as the following questions which aimed to determine: "Have you been given information before VE?," "Was your privacy protected during VE?," "Did you feel discomfort during VE?," "What are the feelings you experienced during VE?," and "What were your expectations from the health staff performing VE?,".

The Women's Experiences of Vaginal Examinations in Labor (WEVEL): This scale was developed by Lewin et al. (9); the reliability and validity study of the Turkish version was conducted by Afacan (18). The cronbach alpha value of the scale is 0.86. WEVEL is a 5-point Likert-type scale consisting of 20 items. A minimum of 20 points and a maximum of 100 points can be obtained from the scale. Higher scores indicate positive VE experience. The cronbach alpha value of the scale was found to be 0.84 in this study.

2.3. Analysis

Statistical analysis was performed using SPSS (Statistical Package for the Social Sciences) for Windows 24.0 software. The Kolmogorov Smirnov test were used to determine whether the data obtained were normally distributed. Data were presented as number, percentage, mean, and standard deviation. In the study, independent groups t-test was used for comparison of normally distributed binary groups and a non-parametric Mann Whitney U test was used for comparison of non-normally distributed binary groups. In the study, the nonparametric Kruskal-Wallis H test was used for comparison of more than two groups that were non-normally distributed. $p<0.05$ was accepted as statistically significant in all analyses.

2.4. Ethical Considerations

To conduct the study, ethics committee approval by the KTU Faculty of Medicine Scientific Researches Ethics Committee (dated 14.01.2019 and numbered 24237859-41) were obtained. Women meeting the inclusion criteria were informed about the study, and the VE application and oral consent were received. Data collection took about 20–30 min for each woman. Verbal informed consent was obtained from women who agreed to participate in the study.

3. RESULTS

In this study, it was determined that 34.1% of women were in the 25–29 age group, most were primary school graduates (43.9%), unemployed (83.8%), multiparous (63.4%), and at 37–39 gestational week (55.2%) (Table 1).

Table 1. *Distribution of women according to some sociodemographic and obstetric characteristics (n = 328)*

Characteristics	n	%
Age group		
20–24 ages	84	25.6
25–29 ages	112	34.1
30–34 ages	85	25.9
35–39 ages	38	14.3
40 ages and above	9	2.7
Education status		
Primary school	144	43.9
High school	110	33.5
University and above	74	22.6
Employment status		
Employed	53	16.2
Unemployed	275	83.8
Parity		
Primiparous	120	36.6
Multiparous	208	63.4
Gestational week at admission to the hospital		
37–39 weeks	181	55.2
40–42 weeks	147	44.8

Vaginal examination was performed 4.05±1.72 (range,1–12) times and by 2.41±1.24 (range,1–7) health staff on both the examination table and their bed (62.8%), and majority of women were informed prior to performing VE (62.2%), and attention was paid to their privacy (98.2%) (Table 2). It was found that 70.7% of women did not experience discomfort during VE (Table 2). While VE was performed in most cases to assess the progress of labor (83.5%), most women stated that the sex of the health staff performing the examination was important to them (66.2%), and more than half of the participants asked for midwives to perform VE (51.5%) (Table 2). During VE, the majority of women experienced fear (57.9%) and/or pain (50%) (Table 2). It was determined that 80.2% of women requested only the person performing the examination to be present in the room during VE (Table 2). Participants expected the medical staff performing the examinations to be understanding (92.1%), friendly (90.9%), and caring (89.0%) (Table 2).

Table 2. *Characteristics of vaginal examination performed on women during labor, information, feelings and expectations of women (n = 328)*

Characteristics	Number/ Mean ± SD	Percentage/ Min-max
Total number of VEs*	4.05 ±1.72	1–12
1	3	0.9
2	55	16.8
3	83	25.3
4	79	24.1
5	55	16.8
6	24	7.3
7	12	3.7
8	12	3.7
9	3	0.9
10	0	0
11	1	0.3
12	1	0.3
Number of personnel performing VE*	2.41±1.24	1–7
1	83	25.3
2	113	34.5
3	79	24.1
4	32	9.8
5	11	3.4
6	9	2.7
7	1	0.3
Was VE performed by different medical staff? (Yes)	245	74.7
Where was VE performed?**		
Only on the examination table	94	28.7
Only in bed	28	8.5
Examination table and bed	206	62.8
Were you informed before VE? (Yes)	214	65.2
Who informed you before VE? (n = 214) (Midwife)	209	97.7
Was your privacy protected during VE? (Yes)	322	98.2
Did you feel any discomfort during VE? (No)	232	70.7
Degree of discomfort during VE***	1.28±2.29	0-10
Cause of discomfort during VE		
The fact that it's painful	16	4.9
Painful examination/pain	14	4.3
Disturbing behavior of the midwife	2	0.6
Examination performed by male doctor	3	0.9
Being examined by different persons	3	0.9
Climbing on the examination table	3	0.9
Not to be respected/no attention to privacy	3	0.9
Frequent examinations	7	2.1
The attitude of the doctor	1	0.3
Why do you think the VE is performed for? **		
To assess the progression of childbirth	274	83.5
For maternal health	38	11.6
For fetal health	32	9.8
Is the sex of the health personnel performing VE important to you? (Yes)	217	66.2
Which healthcare personnel would you like to perform a VE?		
Midwife	169	51.5
Physician	54	16.5
It doesn't matter.	105	32.0
What are the feelings you experience during VE? **		
Fear	190	57.9
Pain	164	50.0
Shame	79	24.1
Anxiety/stress	53	16.2
Joy/excitement	51	15.5
Nothing	2	0.6
Sadness	1	0.3
Disgust	1	0.3
Loneliness	1	0.3
Would you like to have someone with you during the VE?		
Just the person performing the examination	263	80.2
One member of my family	26	7.9
My mother	18	5.5
My husband	14	4.3
My friend	4	1.2
Midwife	2	0.6
Physician	1	0.3
What do you expect from the health personnel performing VE? **		
To be understanding	302	92.1
To be friendly	298	90.9
To be caring	292	89.0
Provide information	274	83.5
To be knowledgeable	263	80.2
To be attentive	259	79.0
To be careful	258	78.7

Data is from patient file (Delivery room observation form); **More than one response was given; * Rated by a 10-point system (0:none, 10:many)*

The mean score of women from WEVEL was 74.18±10.08 (good level), and the mean scores of the approval/ confirmation, perception, privacy, information, and pain subdimensions were 75.55±9.96 (good), 76.17±14.75 (good), 81.63±14.06 (good), 73.79±15.44 (good), and 55.85±18.85 (moderate), respectively.

It was found that VE experiences of women for whom information was provided before the application, and whose privacy was protected during VE practice were more positive. Additionally, it was found that VE experiences of women for whom the gender of medical staff performing vaginal examination did not matter, and whom VE was performed by the same medical staff were more positive. The difference was found to be statistically significant ($p<0.05$) (Table 4).

Table 3. *Descriptive statistics of the scores received by women from WEVEL and its subdimensions (n = 328)*

Scale and subdimensions		Min-max	Mean ± SD
The Women's Experiences of Vaginal Examinations in Labour		40–98	74.18±10.08
Sub dimensions	Approval/Confirmation	30–97	75.55±9.96
	Perception	25–100	76.17±14.75
	Privacy	27–100	81.63±14.06
	Information	32–100	73.79±15.44
	Pain	20–100	55.85±18.85

Table 4. *WEVEL score distribution according to several vaginal examinations (VE) characteristics (n = 328)*

Characteristics	n	%	The Women's Experiences of Vaginal Examinations in Labour	
			Mean ± SD / Median (Min-Max)	Statistical analysis
Number of VEs				
1–4	220	67.1	74.68±9.72	t*=1.297 p=0.196
5 and above	108	32.9	73.15±10.73	
Has VE been performed by different health staff?				
Yes	245	74.7	73 (40-98)	MWU**=8064.00 **p=0.005**
No	83	25.3	77(47-92)	
Number of staff				
1	83	25.3	77 (47-92)	KW***=8.166 **p=0.017**
2–3	192	58.5	74 (43-98)	
4–7	53	16.2	72 (40-94)	
Have you been informed prior to VE?				
Yes	214	65.2	77 (55-98)	MWU**=4187.50 **p<0.001**
No	114	34.8	67 (40-83)	
Is the gender of the health staff performing VE important to you?				
Yes	217	66.2	72.74±10.25	t*=-3.674 **p<0.001**
No	111	33.8	76.98±9.14	
Was your privacy protected during the VE?				
Yes	322	98.2	74.53±9.79	t*=4.865 **p<0.001**
No	6	1.8	55.00±5.36	

Student T-test; **Mann Whitney U; * Kruskal Wallis*

4. DISCUSSION

The WHO and NICE guidelines recommend that VE should be done every 2–4 h during labor and by the same health staff, as much as possible (3,4). In the present study, it was determined that VE was performed on an average of 4.05±1.72 (range, 1–12) times during labor and by 2.41±1.24 health staff (Table 2). It was also found that VE performed by the same health staff resulted in more positive experiences for women. When the relevant literature was examined, it was seen that the average number of VE performed during labor varied between 2.8 and 5.6 (range, 1-15) times (5-10) and that the number of health staff performing VE varies between ranged 2 and 7 (7,8). Although the results of this study are consistent with the WHO recommendations and some studies, there is no consensus on how often VE should be performed on average during labor and by how many medical staff (1,5).

One of the supportive care activities provided by the midwife or nurse during labor is to provide information about the procedure to be performed (19). In the present study, the majority of women were informed by midwives before VE. Furthermore, participants received a good score (73.79±15.44) from the "information" subdimension of the scale, and majority of women stated that VE was performed to assess the progress of delivery, which supports this result (Table 2). Contrary to the results of the present study, Hatamleh et al. (8) and El-Moniem and Mohamady (6) reported that consent was not received from women prior to VE and that the women were not informed before, during, and after the application. However, studies state that information provided using effective communication skills allows women to be more comfortable during the application (6,20).

Personal privacy within the scope of reproductive rights also has an important place in nursing care services, as stated in the item of "Protection of Patient Rights and Respect for Privacy" in the Declaration of Patient Rights (21). In the present study, attention was paid to the privacy of majority of the women prior to VE. It was determined that the participants obtained a score from the "privacy" subdimension of the scale that can be considered as quite good (81.63±14.06 points) (Table 3), and paying attention to privacy resulted in more positive VE experiences (Table 4). Similarly, in the study of Lewin et al., (9) women stated that their privacy was always protected during VE, while Afacan (18) reported a good average score in the subdimension of "privacy" (73.77±13.73 points). Contrary to the results of the present study, Hassan et al. reported that attention was not paid to privacy during VE application (7). Women in the present study requesting that only the person performing the examination to stay in the room during VE suggest that privacy is a real concern. The difference between the studies may be due to the fact that hospital where the present study was conducted is a mother-friendly hospital; thus, the maternity units consist of "single person rooms based on privacy," and the examinations of pregnant women can be performed on their beds, which can also function as examination tables.

Socio-cultural characteristics of society can affect women's sex preference in the field of health (17). In the present study, the majority of women stated that the gender of the personnel performing VE was important to them and that they wanted VE to be performed by midwives. However, it was found that the VE experiences of women who stated that the sex of the health staff performing VE did not matter to them were more positive. Similarly, other studies also reported that the healthcare staff performing VE were mostly women, and patients prefered women staff to perform the examination (22,23,24). Phumdoung and Youngvanichsate (10) reported that women who were planned to be examined by male staff wanted a female nurse to stay with them during the examination. Unlike the results of the present study, El-Moniem and Mohamady (6) reported that the majority (93.9%) of the staff performing VE was men, and women examined by male health staff felt more embarrassment and discomfort. These results show that women prefer VE to be performed by female health staff.

The situations such as VE performed in lithotomy position, attitude and sex of health staff, intimate parts of the body being exposed, and lack of consent or information before the application can cause women to experience feelings such as fear, shame, pain, and discomfort (25). In the present study, feelings most commonly experienced by women during VE were fear, pain, and embarrassment, and women

received a low score in the "pain" subdimension of the scale (55.85±18.85 points), which supports these results. Similar studies also reported that women experienced pain, shame, fear, guilt, and weakness during VE (6,7,8,10,13,16). Maiita et al. (26) also stated that even though women experienced pain, shame, and discomfort during VE, VE was useful during labor. These studies also acknowledge the need for VE during labor despite reporting that women experienced unpleasant feelings during VE (15,17).

The WHO recommends that effective communication using simple and culturally acceptable methods should be established between health care professionals and women for positive birth experience, and respectful maternal care should be provided, which allows them to receive constant support to protect their self-respect, confidentiality and privacy (3). In the present study, it was found that women mostly expected health staff performing VE to be understanding, friendly, attentive, and knowledgeable by provide information. It is reported in the literature that women want health staff to treat them kindly, friendly and attentively, by providing necessary explanations, and information (15,16,22). In this context, health staff should take into account the expectations of women to ensure positive communication between health staff and women, and to increase the quality of care given and maternal satisfaction.

5. CONCLUSION

It was found that women underwent VEs on average 4 times during labor. On the other hand it was determined that women experienced pain, embarrassment, fear, and anxiety during VE, but their VE experiences were positive. In this respect, information and explanation should be provided prior to the examination, and attention should be paid to their privacy during the examination by performing VE only when necessary by the same health staff to ensure that VE experiences of women are positive. Moreover, it was observed that more than half on the participants asked for midwives to perform VE.

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