

Women's Feeling of Discomfort During Vaginal Examination and Related Factors

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Abstract

Objective: This study aimed to identify the level of women's feeling of discomfort during the vaginal examination and associated factors.

Methods: Designed as cross-sectional research, the study was performed with 386 women who had a vaginal examination at a public hospital in Malatya province of Turkey in August-November 2018. The Personal Information Form, the Visual Analog Scale (VAS), and the Impact of Event Scale were used in the collection of research data.

Results: The mean of VAS scores was 2.86 ± 3.52 points for the discomfort felt by participant women from the vaginal examination, and 22.8% of participant women (n=88) felt discomfort from the vaginal examination (VAS \geq 6 cm). Participant women who had no post-traumatic stress symptoms (79.3%), to whom the doctor made explanations during the examination (82.2%), to whom the doctor made explanations after the examination (83.3%), who found the post-examination explanation adequacy (80.2%), who were examined by the doctor (85.1%), who were examined by male health staff (86.6%), and who had the vaginal examination due to pregnancy (86.9%) felt lower levels of discomfort from the vaginal examination, and these differences from corresponding groups of participant women were statistically significant (p<0.05).

Conclusion: It was identified that participant women felt low-level discomfort from the vaginal examination, approximately one-fifth of them had the feeling of discomfort, and the post-traumatic stress and health staff's approaches toward the woman in the vaginal examination affected the woman's feeling of discomfort.

Keywords: Vaginal Examination, Stress, Feeling of Discomfort, Gynecology

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INTRODUCTION

Vaginal examination is an important part of reproductive health services and is one of the most commonly applied procedures (1). Many women in the world experience one or more vaginal examinations throughout their lives, from youth to old age (2). Although vaginal examination takes a shorter time than many other examinations, studies have shown that most of the women do not like vaginal examination, are embarrassed and feel uncomfortable with the examination (1,3,4). Although vaginal examination takes a shorter time than many other examinations, studies have shown that most of the women do not like vaginal examination, are embarrassed and feel uncomfortable with the examination (3,4).

Among all medical interventions, vaginal examinations are one of the most common causes of anxiety and discomfort. In studies conducted on the subject, it was reported that 26% of women felt uncomfortable during the examination, 25% of them embarrassment, 23% of them stress and 20% of them anxiety (4,5). The vulnerability of private parts of the body along with the loss of control during the vaginal examination can lead to psychological disorders besides the feeling of physical discomfort (6,7). In addition, other reasons for the feeling of discomfort experienced in the vaginal examination; Lack of information about the examination, insufficient privacy, the approach of health professionals, the young age of the woman, the lack of examination experience, examination position, the gender of the examining health professional and previous negative examination experiences (4,5,8).

The feeling of discomfort experienced during a vaginal examination can cause feelings ranging from

mild anxiety to high stress in women. The case in which the vaginal examination leads to stress symptoms in women as a negative experience can give rise to reluctance in women to attend vaginal examinations and cause delays or absenteeism in examinations, which has potentially harmful health effects (9,10). For this reason, analyzing the factors inducing women to have the feeling of discomfort during the vaginal examination can help women avoid having a negative experience in the vaginal examination by putting these factors under control (9). Thus, the impediments dissuading women from regularly having vaginal examinations, which are important to the protection of the woman's health, can be eliminated. In this respect, this study aimed to identify the level of the woman's feeling of discomfort during the vaginal examination and associated factors.

Research Questions

1. What is the level of the feeling of discomfort in women during the vaginal examination?
2. What are the related factors that are associated with the feeling of discomfort during the vaginal examination?

METHODS

Research Type and Sample

Designed as cross-sectional research, the study was performed with women who had a vaginal examination at polyclinics of a public hospital in Malatya province of Turkey in August-November 2018. At the hospital, there are six polyclinics, and women can apply to these polyclinics due to gynecological and obstetric reasons. According to hospital records, approximately 7550 women annually were admitted to polyclinics for vaginal examination.

The research population was composed of women who applied to polyclinics of the public hospital. In the selection of women from the population to the sample, the simple random sampling method was used. OpenEpi 3.0, an open-source statistical software, was utilized in the calculation of the sample size (<http://www.openepi.com>). As per the power analysis, the sample size was calculated as a minimum of 366 women with a 5% margin of error, a 95% confidence interval at the two-tailed significance level, and an 80% power. A total of 386 women who volunteered to participate in the research by filling in the informed consent form were included in the study. The criteria designated for women to be included in the research were to have no communication problem and to be aged above 18 years whereas the criteria designated for women to be excluded from the research were to have a history of any psychological disease, to have a vaginal infection, and to have an anatomical or functional disorder in reproductive organs (on grounds that these conditions were likely to raise the level of discomfort felt during the vaginal examination). Only women who applied for pregnancy and postpartum control and routine gynecological control were included in the study. The women who had vaginal bleeding and menstrual bleeding during the examination, and infertility or history of vaginismus were not included in the study.

Data Collection Tools

Researchers collected the data from women by using the face-to-face interview method. Data were collected in patient rooms when women and researchers were left alone in order to protect women's privacy and prevent women from being influenced by others. The Personal Information Form,

the Visual Analog Scale, and the Impact of Event Scale were used in the collection of research data.

Personal Information Form: Researchers created this form in light of the review of the relevant literature. The form has questions addressing participant women's certain descriptive characteristics (age, education level, employment status, income level, and so on) and examination-related characteristics (whether the woman had a vaginal examination in the past, whether the doctor made any explanation about the examination to the woman before/during/after the last examination, the title and gender of the health staff who conducted the vaginal examination, and so on). In the Personal Information Form, there are five questions about descriptive characteristics and nine questions about examination-related characteristics.

Visual Analog Scale (VAS): In the research, the VAS was utilized to identify the feeling of discomfort experienced by women during the vaginal examination. The VAS is a 10 cm measure starting from 0 (not severe at all) to 10 points (unbearably severe). Across the VAS, the woman herself can tick off the level of her feeling of discomfort during the vaginal examination. When the marking on the scale is divided into two according to the score close to the 75% percentile; a score of 5 or less was defined as "no discomfort", and a score of 6 or more as "discomfort" (11).

Impact of Event Scale (IES): The IES that is utilized to evaluate traumatic stress symptoms was developed by Horowitz et al. (12). The IES has a total of 22 items, and each IES item is scored from 0 to 4. Minimum and maximum total scores to be obtained from the IES are respectively 0 and 88 points. A high IES total score shows that the respondent has high-

level stress. Besides, the cut-off point for the IES is 33, and a total IES score of 33 points or above is in support of the probable diagnosis of post-traumatic stress symptoms. Çorapçioğlu et al. (2006) performed the validity and reliability study for the IES in Turkish, and Cronbach's alpha coefficient as the measure of internal consistency was found as 0.93 for the IES (13). In the current study, Cronbach's alpha coefficient was calculated as 0.92 for the IES.

Statistical Analysis

The data collected during the research were evaluated by using the Statistical Package for Social Science (SPSS) 20.0 for Windows. The research data were expressed as numbers, percentages, means, and standard deviations. The chi-squared test and Fisher's exact test were used in the evaluation of categorical data in statistical analysis. In the research, the statistical significance was identified if the p-value was below 0.05 (p<0.05).

RESULTS

The data collected from 386 participant women who were included in the research were evaluated, and the breakdown of participant women's descriptive characteristics was exhibited in Table 1. In this regard, participant women had a mean age of 30.56±8.43 years, and of all participant women, 25.4% were high school graduates, 84.2% did not work, 72.8% had incomes equaling their expenses, and 71.8% were multiparous (Table 1).

Besides, in the research, the mean of VAS scores was 2.86±3.52 points (range: 0-10 points) for the discomfort felt by participant women from the vaginal examination, and 77.2% of the participant women (n=298) felt no discomfort from the vaginal examination (VAS<6 cm) whereas 22.8% of the

participant women (n=88) felt discomfort from the vaginal examination (VAS≥6 cm) (Figure 1).

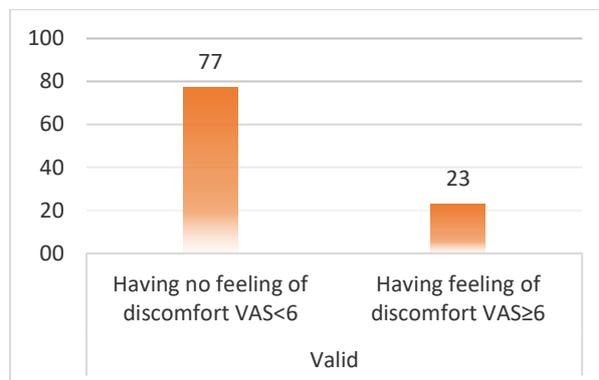


Figure1. Rate of discomfort in gynecological examination in women

Moreover, inter-group comparisons of participant women's discomfort levels during the vaginal examination as per their descriptive characteristics were indicated in Table 2. Participant women who exhibited no post-traumatic stress symptoms (79.3%) felt a lower level of discomfort from the vaginal examination than those who had post-traumatic stress symptoms, and the difference between the two groups was statistically significant (p<0.05).

Table 1. Distribution of introductory characteristics of women (n=386)

Variables	n	%
Age (year) (Ort ± SS)	30.56 ± 8.43	
Education level		
Primary school	104	26.9
Secondary school	93	24.1
High school	98	25.4
University	91	23.6
Occupational status		
Working	61	15.8
Not working	325	84.2
Income level		
Low	41	10.6
Moderate	281	72.8
Good	64	16.6
Parite		
Nullipar	35	9.1
Primipar	74	19.1
Multipar	277	71.8

SS: Standart Sapma

Table 2. Comparison of discomfort during gynecological examination according to the introductory characteristics of women (n=386)

Variables	Having no feeling of discomfort (VAS < 6 cm)	Having feeling of discomfort (VAS ≥ 6 cm)	Test and p value
Age (year)			
≤ 35	220 (74.8)	74 (25.2)	$\chi^2=3.944$
> 35	78 (84.8)	14 (15.2)	p=0.051
Education level			
Primary school	85 (81.7)	19 (18.3)	$\chi^2=2.968$
Secondary school	67 (72.0)	26 (28.0)	p=0.397
High school	74 (75.5)	24 (24.5)	
University	72 (79.1)	19 (20.9)	
Occupational status			
Working	47 (77.0)	14 (23.0)	$\chi^2=0.001$
Not working	251 (77.2)	74 (22.8)	p=0.975
Income level			
Low	33 (80.5)	8 (19.5)	$\chi^2=0.651$
Moderate	214 (76.2)	67 (23.8)	p=0.722
Good	51 (79.7)	13 (20.3)	
Parite			
Nullipar	33 (94.3)	2 (5.7)	$\chi^2=6.456$
Primipar	55 (74.3)	19 (25.7)	p=0.051
Multipar	210 (75.8)	67 (24.2)	
PTSB			
Yes	22 (57.9)	16 (42.1)	$\chi^2=8.927$
No	276 (79.3)	72 (20.7)	p=0.007

Lastly, inter-group comparisons of participant women's discomfort levels during the vaginal examination as per their examination-related characteristics were exhibited in Table 3. Participant women to whom the doctor made explanations during the examination (82.2%), to whom the doctor made explanations after the examination (83.3%), who found the post-examination explanation adequacy (80.2%), who were examined by the doctor (85.1%), who were examined by male health staff (86.6%), and who had the vaginal examination due to pregnancy (86.9%) felt lower levels of discomfort from the vaginal examination, and these differences from corresponding groups of participant women were statistically significant ($p < 0.05$).

DISCUSSION

Vaginal examination is a process that is utilized regularly to protect the woman's health and identify the woman's sexual problems; however, it triggers negative feelings in most women. In this study, we aimed to identify the level of the woman's feeling of

discomfort during the vaginal examination and associated factors. In our study, it was found that participant women felt low-level discomfort from the vaginal examination (2.86 ± 3.52 points) and approximately one-fifth of them (22.8%) had the feeling of discomfort. In previous studies, this percentage was identified as 17.9% for Danish women (14), 51% for Swiss women (15), and 68% for Palestinian women (16). In studies performed in Turkey, Erbil et al. put forward that woman experienced medium-level anxiety, embarrassment, and distress before vaginal examination (17), Gunes and Karacam found 26.3% of the women described discomfort during vaginal examinations (9), and Demiray et al. asserted that women had mild anxiety in association with the examination, and 15% of the women felt uneasy and 21.7% of the women felt embarrassment and distress during the examination (18). In light of these findings, it can be said that women had negative feelings during the examination even if they felt different levels of discomfort.

Another reason for women to feel different levels of discomfort during the examination may be the fact that the feeling of discomfort is a subjective experience and is measured by using different measurement tools in different communities.

Table 3. Comparison of the discomfort during the gynecological examination according to the characteristics of the examination (n=386)

Variables	Having no feeling of discomfort (VAS < 6 cm)	Having feeling of discomfort (VAS ≥ 6 cm)	Test and p value
History of gynecological examination			
Yes	293 (76.9)	88 (23.1)	$\chi^2=1.496^*$ p=0.593
No	5 (100)	0	
State of making a statement before the examination			
Yes	131 (74.4)	45 (25.6)	$\chi^2=4.081$ p=0.130
No	133 (82.1)	29 (17.9)	
Partially	34 (70.8)	14 (29.2)	
Person making a statement during the examination			
Midwife	45 (57.7)	33 (42.3)	$\chi^2=15.728$ p<0.001
Doctor	120 (82.2)	26 (17.8)	
State of making a statement after the examination			
Yes	200 (83.3)	40 (16.7)	$\chi^2=26.144$ p<0.001
No	38 (54.3)	32 (45.7)	
Partially	60 (78.9)	16 (21.1)	
Adequacy of the explanation made after the examination			
Yes	146 (80.2)	36 (19.8)	$\chi^2=10.963$ p=0.004
No	82 (67.2)	40 (32.8)	
Partially	70 (85.4)	12 (14.6)	
Number of previous gynecological examinations			
1-5 times	109 (72.2)	42 (27.8)	$\chi^2=3.743$ p=0.154
6-10 times	51 (78.5)	14 (21.5)	
11-15 times	138 (81.2)	32 (18.8)	
Medical personnel examining			
Midwife	54 (62.8)	32 (37.2)	$\chi^2=47.943$ p<0.001
Nurse	5 (26.3)	14 (73.7)	
Doctor	239 (85.1)	42 (14.9)	
Gender of the examining health personnel			
Woman	78 (59.1)	54 (40.9)	$\chi^2=37.385$ p<0.001
Man	220 (86.6)	34 (13.4)	
Reason for inspection			
Pregnancy control	133 (86.9)	20 (13.1)	$\chi^2=41.753$ p<0.001
Gynecological reasons	131 (80.4)	32 (19.6)	
Postpartum control	34 (48.6)	36 (51.4)	

VAS: Visual Analog Skala, *Fisher kesin ki-kare testi sonucu

Moreover, in our study, it was found that the title of the health staff who conducted the vaginal examination and made explanations during the examination affected levels of discomfort felt by women. In this respect, it was discerned that women to whom the doctor made explanations during vaginal examination felt a lower level of discomfort than those to whom the midwife made explanations. In the study by Erbil et al., women put forward that the

doctor conducting the gynecological examination should be first of all well-informed and talented (63.8%) and should provide information (44.6%), and also, in the same study, 37.5% of women stated that they did not want anyone else, except the doctor, to be with them in the examination room during the gynecological examination (17). This finding may have been obtained due to the women's perception of firstly the doctor and then successively the midwife

and nurse as experts in the field of gynecology as indicated in our study.

Furthermore, in our study, it was identified that women to whom the doctor made explanations after the examination and who found the post-examination explanation adequacy felt lower levels of discomfort from the vaginal examination respectively than those to whom the doctor made no explanation after the examination and who found the post-examination explanation inadequacy. In the study by Demir and Yesiltepe Oskay, it was identified that 69.7% of the women expected that necessary information would be given, and explanations would be made in the gynecological examination (19). In the study by Altay and Kefeli, it was stated that among women's expectations was that the health staff would provide information (20). In the qualitative study performed by Gunes and Karacam with women who had a vaginal examination, it was discerned that women's expectations were to be treated more kindly and to obtain information about the vaginal examination (1). In the literature, it has been reported that informing women during the vaginal examination process by a health professional will reduce anxiety and fear and provide a positive experience. Having a positive communication with the woman after gynecological examination and informing the woman about the administered procedure and her health status can eliminate negative experiences to be faced by the woman during the examination (1,19).

Next, one of the factors associated with the level of discomfort felt by women in the vaginal examination is the examiner's gender. In our study, it was found that women who were examined by female health staff felt a higher level of discomfort than those

examined by male health staff. In the study by Gunes and Karacam, the majority of women asserted that they wanted to be examined by a female midwife/doctor and felt higher levels of diffidence and embarrassment in examinations conducted by male health staff (1). In the study by Yanikkerem et al., it was discerned that, when women were asked about their preferences for the doctor's gender, 45.5% of the women wanted to be examined by a female doctor, 4.2% of them preferred a male doctor, and the rest of them (49.9%) did not have any particular preference (21). In the study by Szymoniak et al., 56% of the women wanted to be examined by female health staff, 37% of them wanted to be examined by male health staff, and 7% of them told that being examined either by female or by male health staff was not important at all (22). These findings differ from our study result. This may be due to the fact that the women we sampled consisted of women who only came for routine controls.

Lastly, in our study, it was identified that women who had the vaginal examination in the context of the postpartum control felt a higher level of discomfort from the vaginal examination than those having the vaginal examination due to gynecological control and pregnancy. Vaginal examination in the postpartum period is conducted after a few weeks following childbirth, and thus, for the woman, this means being re-examined at an interval of a few weeks. It is thought that, in comparison to routine controls, the vaginal examination conducted more frequently in this period may have increased the feeling of discomfort in women. As a matter of fact, the finding of the study by Esencan indicating that the rate of having routine vaginal examinations after the last

childbirth was low (19.2%) (23) is in support of this thought.

In this study, discomfort from vaginal examination was also evaluated in women with and without post-traumatic stress symptoms. It was discerned that women who felt discomfort from the vaginal examination had post-traumatic stress symptoms more than those who felt no discomfort from the vaginal examination. Swahnberg et al. stated that the feeling of discomfort during the vaginal examination was associated with traumatic stress disorder and the negative emotional state (24). Also, Hilden et al. found that women who felt discomfort during the vaginal examination later had stress symptoms and sadness (14). Along with these findings, it can be put forward that woman could have post-traumatic stress symptoms due to perceiving the vaginal examination as a traumatic experience, or women with post-traumatic stress symptoms felt higher levels of discomfort during the vaginal examination.

CONCLUSION

In this study, it was found that participant women felt low-level discomfort from the vaginal examination and approximately one-fifth of them had the feeling of discomfort. Besides, it was discerned that the participant women who had no post-traumatic stress symptoms, who found the post-examination explanation adequacy, who were examined by the doctor, to whom the doctor made explanations during the examination, who were examined by male health staff, and who had the vaginal examination due to pregnancy felt lower levels of discomfort from the vaginal examination.

Ethics Committee Approval: Ethical approval was obtained from İnönü University Health Sciences Scientific Research and Publication Ethics Committee (Decision No: 2018/3-16).

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REFERENCES

1. Gunes G, Karacam Z. Vaginal examination experiences of postpartum women: a qualitative study. *Dokuz Eylül University Faculty of Nursing Electronic Journal* 2018;11(2):87-95.
2. Erkek ZY, Ozer S. Views of mothers on vaginal examination during labor. *Anatolian Journal of Nursing and Health Sciences* 2020;23(1):9-16.
3. Ozbek H, Sumer H. The effect of supportive midwifery approach on the anxiety level of women who come to pelvic examination. *Journal of Cumhuriyet University Institute of Health Sciences* 2019;4(1):45-54.
4. Aksu S, Turgut B. Anxiety level of women before gynecological examination and affecting factors. *Journal of İnönü University Vocational School of Health Services* 2020;8(3):688-700.

5. Ozcan H, Dagli A, Kocak DY. Experiences of women who had gynecological examination: The case of Gümüşhane. *Journal of Health Academics* 2020;7(3):188–195.
6. Calim SI, Ulas SC, Suluden E, Atac S, Gocer S, Yurekli ZN. Determining the gynecological examination experiences and expectations of academic women. *Adnan Menderes University Faculty of Health Sciences Journal* 2022;6(1):125–134.
7. Skär L, Grankvist O, Soderberg S. Factors of importance for developing a trustful patient-professional relationship when women undergo a pelvic examination. *Health Care for Women International* 2020;41(8):869–882.
8. Saleh N, Abu-Gariba M, Yehoshua I, Peleg, R. Barriers to implementation of a pelvic examination among family doctors in primary care clinics. *Postgraduate Medicine* 2018;130(3):341–347.
9. Gunes G, Karacam Z. The feeling of discomfort during vaginal examination, history of abuse and sexual abuse and post-traumatic stress disorder in women. *Journal of Clinical Nursing* 2017;26(15–16):2362–2371.
10. Mrayan L, Alnuaimi K, Abujilban S, Abuidhail J. Exploring Jordanian women’s experience of first pelvic examination. *Applied Nursing Research* 2017;38(September):159–162.
11. Noble B, Clark D, Meldrum M, Have H, Seymour J, Winslow M, Paz S. The Measurement of Pain, 1945–2000, *Journal of Pain and Symptom Management* 2005;29(1):14–21.
12. Horowitz M, Wilner N, Alvarez W. Impact of Event Scale: A measure of subjective stress. *Psychosomatic medicine* 1979; 41(3):209–218.
13. Corapcioglu A, Yargic I, Geyran P, Kocabasoglu N. The validity and reliability of Turkish version of “Impact of Event Scale-Revised” (IES-R). *New Symposium Journal* 2006;44(1):14–22.
14. Hilden M, Sidenius K, Langhoff-Roos J, Wijma B, Schei B. Women's experiences of the gynaecologic examination: Factors associated with discomfort, A.O.G.S. 2003; 82(11):1030–1036.
15. Neuhaus LR, Memeti E, Schääffer M-K, Zimmermann R, Schääffer L. Using a wrap skirt to improve the pelvic examination experience. *Acta Obstet Gynecol Scand* 2016;95:534–540.
16. Hassan S, Sundby J, Husseini A, Bjertness E. Palestinian women’s feelings and opinions about vaginal examinations during normal childbirth: an exploratory study. *The Lancet Journal* 2012;380:35.
17. Erbil N, Senkul A, Saglam Y, Ergul N. Determination of attitudes with gynecologic examination and anxiety of turkish women before gynecologic examination. *International Journal of Human Sciences* 2008;5(1):1–5.
18. Demiray A, Akin Korhan E, Cevik K, Khorshid L, Yucebilgin MS. Comparison of state anxiety related to gynecological examination in patients admitted to public and private institutions. *Electronic Journal of Vocational Colleges* 2014;4(4):122–129.
19. Demir S, Yesiltepe Oskay U. The experiences of women who have had a gynecological

- examination and their expectations from the health professional. *Kashed* 2014;1(1):68-79.
20. Altay B, Kefeli B. Anxiety level of women who come to gynecological examination and some affecting factors. *Dokuz Eylul University Faculty of Nursing Electronic Journal* 2012;5(4):134–141.
21. Yanikkerem E, Ozdemir M, Bingol H, Tatar A, Karadeniz G. Women's attitudes and expectations regarding gynaecological examination. *Midwifery* 2009;25(5):500-508.
22. Szymoniak K, Cwiek D, Berezowska E, Branecka-Woźniak D, Dzióbek I, Malinowski W. Women's opinions regarding gynaecological examination in a hospital. *Ginekol Pol* 2009;80:498–502.
23. Esencan TY. Evaluation of women's attitudes and behaviors in the use of gynecological early diagnosis methods. *Zeynep Kamil Medical Bulletin* 2009;40(2):63-66.
24. Swahnberg K, Wijma B, Siwe K. Strong discomfort during vaginal examination: why consider a history of abuse. *European Journal of Obstetrics and Gynecology and Reproductive Biology* 2011;157:200–205.