Original Article

Factors Affecting Women's Approach to Gynecologic Examination for Cancer Prevention

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Abstract

Introduction: Gynecologic examination makes early diagnosis and follow-up possible in the event of gynecologic cancer. Healthcare professionals (midwives, nurses and doctors) have the critical responsibility of ensuring that women are psychologically prepared for examinations and get examined regularly.
Aim of the Study: The aim of this study is to determine the factors affecting women's approach to gynecologic examination for cancer prevention.
Methodology: The study was performed with 635 women consenting to participate from among the patients admitted to the Family Health Center No. 1 in the Kiraz county of Izmir province, Turkey. The subjects were given a questionnaire of 46 questions on their socio-demographic characteristics, gynecologic complaints, and reasons for having or not having gynecologic examination.
Results: According to study results, the mean age of the women was 34.91±11.00 and 72.3% of them were married. It was found that 64.1% of them did not undergo regular gynecologic examinations and 35.9% did. By their own admission, 37.5% of these women sought gynecologic examination when their problems became unbearable, 35.9% underwent regular examination and 26.6% did this only when they had a complaint. A statistically significant ($p<0.001$) correlation was found between the regular gynecologic examination status of women and the caring attitude, respect for privacy and lack of negative attitudes by the healthcare personnel.
Conclusion: It is important to know about the thoughts and experiences of women on gynecologic examination, as well as the factors affecting their habit of undergoing this on a regular basis so that healthcare professionals can provide information and raise awareness about early diagnosis and screening and ensure that they provide enough care to women, respect their privacy, and refrain from negative attitudes.

Keywords: Gynecologic cancer, Early diagnosis and screening, Gynecologic examination.

Introduction

Cancer is one of the most serious social health problems on a global scale. It is the second most common cause of death in the world and is expected to rise to the first rank by 2030. The need for a dynamic, versatile, scientific, multidisciplinary and cost-effective program is advocated for a full and effective control on cancer (Republic of Turkey Ministry of Health, Cancer Statistics for Turkey, 2016).In developing countries, gynecologic cancers account for about 25% of all female cancers besides non-melanoma skin cancer (Iyoke and Ugwu, 2013). Gultekin *et al.*, (2017) examined the national cancer data for the years 2009-2013 in Turkey to evaluate the incidence of 16,023 cases of gynecologic cancer. According to the results of this research the average incidence of all gynecologic cancers was 22.7 and the number of female cancer incidents per a population of 100,000 in 2009-2013 was 162.6. Therefore, a total of 60,434 new cases of cancer in women and 8,437 new cases of gynecologic cancer are expected each year.

Cervical cancer, one of the gynecologic cancers, is at the third rank among gynecologic cancers on a global scale. According to the 2018 data of

the US Surveillance, Epidemiology, and End Results Program (SEER) an estimated 4,170 of the 13,240 newly diagnosed cervical cancer patients will die (US National Cancer Institute, 2018). The most important cause of cervical cancer is HPV infection (Sankaranarayanan *et al*., 2009). Pap smear test, used in the prevention and early diagnosis of cervical cancer, provides a reliable and effective testing method (Unalan *et al.*, 2005). Endometrial cancer is the most common gynecologic cancer in the world and in Turkey. According to the 2018 data of the American Cancer Society, an estimated 11,350 of 63,230 patients newly diagnosed with uterine corpus cancer will die (US National Cancer Institute, 2018). Routine screening is not recommended because of the early onset of symptoms in endometrial cancer and easy access to the uterus for diagnosis (Jemal *et al*., 2006). The second most common gynecologic cancer is seen in the ovaries. Besides, ovarian cancer has the highest mortality among gynecologic cancers. Most patients are found to have already metastasized before diagnosis. Early diagnosis increases survival, but it can be difficult to diagnose ovarian cancer at an early stage (Badgwell and Best, 2007). Cancers of the vulva and vagina, on the other hand, are the least common primary gynecologic cancers. Vulva cancer accounts for 3-5% of malignant neoplasms in the female genital area; vaginal cancer accounts for 2%. Early diagnosis rates increased as they are easily identified during gynecologic examination (Badgwell and Best, 2007).

Gynecologic examination is a procedure that every woman must undergo at least once a year and consists of obtaining medical history followed by a pelvic examination with the patient placed on the gynecologic examination table in the lithotomy position. Gynecologic examination is very important for early diagnosis of gynecologic cancers. However, some social and psychological factors can positively or negatively affect women's approach to this examination. Inadequate knowledge of sexuality, fear, shame, sexual repression or being shy about asking questions are among the factors that affect patient attitudes negatively. As for the factors with a positive effect, sufficient information provided by the healthcare professionals, also their reassuring and supportive attitude, respect for privacy, and generally considerate and kind behavior can be accounted for (Erbil *et al*., 2010). Midwives, nurses, and doctors have important responsibilities in terms of gynecologic examination. The female patient arriving for an examination should be received in a respectful manner with care for her psychological needs, as much as the physical ones. Prior to the gynecologic examination, psycho-social factors should be considered. The healthcare professional needs to understand the psychology of the woman first. They have to provide guidance in a supportive, reassuring, and realistic manner (Scamell and Stewart, 2014). Previous negative experiences of gynecologic examination prevent women from coming to future examinations and as a result of this, the chance of protection and improvement that could be secured in women health by regular checks will be missed. As a result, the active role of the healthcare professional is the reason patients evaluate the experience of examination in a positive way and are satisfied with the healthcare service they receive (Aksakal, 2001). To conclude, the health education and counseling, as well as the healthcare approach of the field professionals play an important role in preventive healthcare.

Aim: The aim of this study is to determine the factors affecting women to undergo gynecologic examination for cancer prevention.

Methodology

Study Design and Sample: The study universe consists of 635 female patients over 18 years of age who applied to the Family Health Center No. 1 of the Kiraz county of Izmir, Turkey, between the dates of July 1 and September 30, 2013. There was no sample selection: 560 patients (88% of the study universe) who applied to the Family Health Center between these dates and gave consent for participation were admitted to the study. The socio-demographic characteristics and gynecologic examination status of the participants were determined through a questionnaire prepared by searching the field literature and consulting with the experts. The questionnaire consisted of 25 questions related to age, education, income generating work, marital status, gynecologic complaints, and gynecologic examination, as well as 46 questions inquiring about the reasons for avoiding gynecologic examination (Taskın, 2004; Gumus and Cam, 2006; Akyuz *et al.*, 2006; Aydogdu and Bekar,

2016). Study data were evaluated using the SPSS 21.0 software package with a margin of error of 0.05 and the methods of frequency distribution, chi-square test, variance analysis, tukey test, and the significance test for difference of two means were used in the evaluation.

Study Ethics: Approval for the study was obtained from the Cumhuriyet University Faculty of Medicine Board of Ethics (permission no. 09/04, obtained in the meeting held on September 11, 2012 under the reference 2012–09/04); permission to perform field work was obtained from the Ministry of Health Public Health Agency of Turkey (THSK) Department for the Training and Development of Family Practice (dated May 13, 2013, with resolution no. 50941), and consents were obtained from the study subjects. The study was conducted in accordance with the ethical standards of the Declaration of Helsinki.

Results

The mean age of the 560 study participants was 34.91 ± 11.00 (min. 18, max. 66). Participants with a university degree made up 9.8% of the total, whereas 32.4% were high school and 27.1% were primary school graduates. The ratio of the married subjects was 72%. Age at the first marriage was in the range of 15-19 for 21% of the subjects and above 25 at 24.9%. Of these women, 12.7% did not have medical insurance.

It was determined that 79% of the subjects had experience of sexual intercourse, 79.3% had no gynecologic complaints and those with a complaint experienced either pain (36.2%) or itching (32.7%). Of the study subjects, 37.5% stated that they sought gynecologic examination only when their problem became unbearable and 26.6% said to do so when they had a complaint. It was determined that 64.1% of the subjects did not undergo gynecologic examination on a regular basis. An examination of the knowledge level of subjects about the importance of gynecologic examination in terms of early diagnosis in gynecologic cancers showed that 87.9% were informed enough and they had acquired this information most often from the midwife (28.6%), then in seminars or meetings (18.5%) and lastly from the printed or visual media (16.7%). In our study, the 71.6% of the subjects sought gynecologic examination when they had gynecologic complaints, 92.0% as part of regular medical checkups, 51.2% due to worries of cancer, 27.3% upon doctor's advice, and 10.4% because of a history of cancer in the family. A distribution of the study subjects based on the reasons for not undergoing gynecologic examination revealed that 72.7% did not consider themselves at a risk for cancer, 61.2% did not know that they should undergo examination, 61% were shying out, 58.2% avoided examination because it was to be performed by an healthcare professional of the opposite sex, 56.2% because of gynecologic complaints, 54.5% because of the negative attitudes of the healthcare professional during the examination, and finally 44.5% stated neglectfulness as the reason. Comparative statistics showed that as the age increased, the patients neglected regular examinations ($p<0.05$). A statistically significant ($p=0.001$) difference was found between the regular gynecologic examination status of the study subjects and their experience of a caring attitude, respect for privacy and lack of negative attitudes by the healthcare personnel. It was found that the subjects failed to undergo regular gynecologic examination unless they had a gynecologic problem or complaint ($p=0.001$). A statistically significant difference was found in the regular gynecologic examination status of the subjects who did not see themselves at a risk for cancer ($p=0.001$), feared of a possible cancer diagnosis as a result of examination ($p=0.001$), feared of falling apart with friends or family in the event of a cancer diagnosis ($p=0.001$), had family history of cancer ($p=0.001$) and was not informed about the importance of gynecologic examination for early diagnosis in gynecologic cancers ($p=0.001$).A study of the relation between subject's previous examination experience and regular gynecologic examination status showed a statistically significant difference between the regular gynecologic examination status of the subjects who did not know that gynecologic examination helped protect gynecologic health ($p=0.001$) and were not aware that medical screening were preventive health measures ($p=0.007$). The difference between regular gynecologic examination status and cancer anxiety, consideration of risk and fear of cancer diagnosis was also found to be statistically significant ($p=0.001$).

Table 1. Obstetric and gynecologic characteristics of the subjects

Obstetric and Gynecologic Characteristics	n	%
Experience of Sexual Intercourse (n=560)		
Experience of sexual intercourse	442	79.0
No experience of sexual intercourse	118	21.0
Age of First Sexual Intercourse (n=442)		
15-18	75	13.4
19-21	105	18.8
22-24	87	15.5
25-27	156	27.9
28 or older	19	3.4
Gynecologic Complaint (n=560)		
Yes	116	20.7
No	444	79.3
Nature of the Gynecologic Complaint (n=116)		
Pain	42	36.2
Bleeding	26	22.4
Discharge	10	8.4
Itching	38	32.7
Approach to Gynecologic Examination (n=560)		
When the problem becomes unbearable	210	37.5
When has a complaint	149	26.6
On a regular basis	201	35.9
Regular Gynecologic Examination (n=560)		
Yes	201	35.9
No	359	64.1
Reasons for Gynecologic Examination (n=201)*		
Gynecologic complaint	144	71.6
Regular checkup	185	92.0
Worries about cancer	103	51.2
Doctor’s advice	55	27.3
Family history of cancer	21	10.4

Table 2. Relation between sexual life, health status, and healthcare professional's attitudes and regular gynecologic examination

		Regular Gynecologic Examination		
		No		*p*
		n	%	
Sexual Activity	Yes	208	37.1	**0.001**
	No	151	27.0	
Unhappiness in Current Sexual Life	Yes	1	0.2	0.641
	No	358	63.9	
Presence of Gynecologic Problems	Yes	106	18.9	**0.001**
	No	253	45.2	
Presence of Gynecologic Complaints	Yes	2	0.4	**0.001**
	No	357	63.7	
History of STDs	Yes	1	0.2	0.589
	No	358	63.9	
History of Gynecologic Infections	Yes	15	2.7	0.002
	No	344	61.4	
Uncaring Healthcare Professional	Yes	152	27.1	**0.001**
	No	207	**37.0**	
Non-communicative Healthcare Professional	Yes	170	30.4	**0.001**
	No	189	**33.7**	
Healthcare Professional Respectful of Privacy	Yes	189	**33.7**	**0.001**
	No	170	30.4	
Negative Attitude of Healthcare Professional	Yes	196	**35.0**	**0.001**
	No	163	29.1	

Table 3. Relation between previous experience of examination and regular gynecologic examination

Previous Experience of Examination and Its Circumstances		Regular Gynecologic Examination		
		No		*p*
		n	%	
Fear of Gynecologic Examination Table	Yes	128	22.8	**0.001**
	No	231	41.3	
Previous Negative Experience	Yes	42	7.5	**0.001**
	No	317	56.6	
Trouble Due to the Position in Examination	Yes	169	30.2	**0.001**
	No	190	33.9	
Fear of Infection During Examination	Yes	167	29.8	**0.001**
	No	192	34.3	
Discomfort in the Hospital Environment	Yes	172	30.7	**0.001**
	No	187	33.4	
Worries About Hygiene During	Yes	164	29.3	**0.001**

Examination	No	195	34.8	
Fear of an Unknown Procedure	Yes	10	1.8	**0.001**
	No	349	62.3	
Fear of Pain During Examination	Yes	171	30.5	**0.001**
	No	188	33.6	
Prejudices About Examination	Yes	81	14.5	**0.001**
	No	278	49.6	

Discussion

It was observed that 35.9% of the women who participated in our study had regular gynecologic examinations and 64.1% sought gynecologic examination whenever they had a complaint or their problems became unbearable. In a study on 4,225 women, the reasons for seeking gynecologic examination were listed as 71.3% labor, 16.9% threat of preterm childbirth, 8.4% postnatal checkup and 1.8% other checks (Aydın *et al*., 2015; Gunes, 2015). Another study conducted with 966 women, reasons for admission as a gynecology outpatient were listed as 36.5% checkup request, 19.5% complaint of discharge and 15.7% menstrual disorders (Aydın *et al.*, 2015). It is seen that women do not develop a habit of regular gynecologic examination and literature supports this finding with the suggestions that women avoid gynecologic examination before they have serious problems, because of the negative attitudes of healthcare professionals or unfavorable circumstances.

In our study, 87.9% of the subjects were informed about the procedure of gynecologic examination and it was found that 28.6% acquired this information from midwives, 14.9% from nurses, and 13.7% from doctors. In a study on 156 female teachers in India, 60% of these women had newspapers and magazines as their source of information, whereas more than 75.0% found about the Pap smear test from doctors (Shankar *et al.*, 2015).

The attitudes and behavior of the healthcare worker before, during, and after the gynecologic examination are of utmost importance. A positive examination experience is a determining factor in the continuity of subsequent examinations. Studies show that non-communicative healthcare professionals, harsh behavior or rush during the examination, and the examining doctor being of the opposite sex prepares the ground for negative experiences (Aksakal, 2001; Demir and Oskay, 2014; Ozbek and Sumer, 2019). Although women know the importance of screening in terms of gynecologic cancers, they still avoid it due to the procedure of gynecologic examination and a sense of privacy (Mete, 2014). Women's discomfort in gynecologic examination is based on the concern of exposing private parts. Sexual organs are universally defined as "organs that are perceived as private and with a special significance" (Mete, 2014). Our study also found a statistically significant difference between regular gynecologic examination status and women's perception that the healthcare professional cared for their well-being, respected their privacy, did not display any negative attitudes, and made the necessary explanations ($p<0.01$). Healthcare professionals' approach during gynecologic examination is crucial.

An assessment of regular gynecologic examination status and presence of gynecologic complaints showed statistically significant difference between the two variables. It was found that women would not seek gynecologic examination unless they had a gynecologic complaint. In a study on 275 women, 56.7% of the subjects sought gynecologic examination when they had complaints, 24.7% for prenatal and postnatal care and 5.5% on a regular basis, *i.e.* every year (Bolsoy and Senol, 2000). A study conducted with 224 women over 40 years of age, 51.8% sought gynecologic examination when their problems were unbearable, 51.3% when they had any complaints and 10.7% for regular screening (Buyukkayacı Duman *et al.*, 2015). Seeking gynecologic examination only in case of complaints or distress suggests that gynecologic examination is not considered a prerequisite for the preventive early screening of gynecologic cancers. In our study, 35.9% of the participants had regular gynecologic examinations. From among the study subjects, 45.4% did not have regular gynecologic examination for lack of time,

56.2% for not having any gynecologic complaints, 61.0% because of embarrassment, 72.7% because they did not see themselves at risk, and 31.1% for fear of a gynecologic cancer diagnosis. In a study conducted with 197 female physicians with a mean age of 33.0 ± 6.8, it was found that 71.6% of female physicians received training on Pap smear test as a screening method for gynecologic cancers, yet 46.2% never underwent gynecologic examination and 67.0% did not have Pap smear test done. Reasons stated for not taking a Pap smear test were neglect (26.4%), not considering self at risk, being a virgin (5.6%) and feeling shameful about it (3.6%) (Isık *et al*., 2016). Healthcare professionals are expected to lead by example and provide role models for awareness on the role of gynecologic screening through examination and Pap smear testing in preventing gynecologic cancers and therefore the importance of education and raising awareness at healthcare professionals cannot be stressed enough.

Akyuz *et al.* (2006) found that all those who consider themselves at risk for cervical cancer had a Pap smear test. Our study found a statistically significant ($p<0.001$) relation between considering self at risk and having a Pap smear test done. Similarly, 51.2% of the study subjects underwent gynecologic examination because of their worries about cancer and 10.4% because they had a history of cancer in the family.

A study was conducted with 167 patients admitted to the emergency room for abdominal pain or vaginal bleeding and underwent gynecologic examination as part of routine evaluations. It was found that examination by male physicians was significantly more painful than the examinations performed by female physicians. Moettus sklar and Tandberg (1999) and Wendt *et al.* (2004) found that women had a fear of pain during gynecologic examination. Hilden *et al.* (2003) also concluded that women were afraid of suffering pain due to the devices used and the procedure itself. In line with the existing literature, our study also found that 47.6% of the women who avoided gynecologic examination did so for fear of pain and 2.78% because of the fear they had due to an unknown procedure. A statistically significant difference was found between regular gynecologic examination status and the discomfort experienced in the examination position, fear of pain due to examination and fear of the unknown examination procedure ($p<0.01$).

Many women have unfavorable or negative experiences of examination. In the first place, there is the inadequacy of the information on the examination procedure and the discomfort felt about the anatomy and physiology of genital organs (Jeppesen, 1995; Wijima Gullberg and Kjessler, 1998). Some women perceived the procedure as very distressing and humiliating (Wijima Gullberg and Kjessler, 1998). In our study, it was also concluded that previous negative experience, fear of the unknown procedure, and distress caused by the examination position affected readiness to undergo gynecologic examination and the statistical difference was found to be significant ($p<0.01$). Healthcare professionals may prevent this negative perception by establishing a positive communication with their patients before, during and after the gynecologic examination, by being attentive and caring, informing the patient about the procedures, being gentle with the instruments and respecting patient's privacy. Training the healthcare professionals to provide a positive experience of gynecologic examination and help them acquire healthy communication skills with women will be the way to establish regular screenings for gynecologic cancers.

Studies show a high ratio of women avoiding examination due to feelings of embarrassment and discomfort at exposing the genitals (Larsen Oldeide and Malterud, 1997; Bolsoy and Senol, 2000; Wendt Fridlund and Lidell, 2004). Women experience traumatic effects in gynecologic examination ranging from mild anxiety and embarrassment to the avoidance of examination altogether (Millstein Adler and Irwin, 1984; Domar, 1986). The examination position and the requirement of baring the lower body are other reasons leading to avoidance of this examination (Aksakal, 2001). In line with the existing literature, our study found that 28.1% of women avoided gynecologic examination due to taboos, 30.9% for attitudes requiring concealment of genitals, 61.0% because of feelings of shame, 47.0% because of the examination position, and 52.6% because their privacy was not respected during gynecological examination. A statistically significant ($p<0.01$) correlation was found between the regular gynecologic examination

status of women and the caring attitude, respect for privacy and lack of negative attitudes by the healthcare personnel. A positive examination experience depends on the level of attention of the healthcare professional, cleanliness and comfort of the environment, polite and respectful service and respect for the privacy of women (Bekmezci and Ozkan, 2015). It is important to know that women's thoughts and experiences about gynecologic examination might prevent them from undergoing gynecologic examination on a regular basis, as well as a sensitive approach by the healthcare professional, willingness to provide information, raising awareness, and the planning of training and support programs. The suggestion by Bates *et al.* (2011) that women with a history of cancer in the family tend to avoid regular examinations for fear of a diagnosis of cancer is consistent with our finding that the fear of being diagnosed with cancer was a factor associated with a failure of regular examinations. In our study, it was found that 31.1% of women avoided regular gynecologic examination out of a fear of being diagnosed with cancer. Another finding obtained in our study was that women who were worried about gynecologic cancer had to undergo gynecologic examination on a regular basis. The difference between having a regular gynecologic examination and cancer anxiety, considering self under risk and fear of cancer diagnosis was statistically significant ($p<0.01$).

Our study found that 9.7% of the women did not have a gynecologic examination because of the fear that the diagnosis of gynecologic cancer would disrupt their relationship with their spouse or partner. In another study conducted with 20 women diagnosed with gynecologic cancer to investigate how such diagnosis would affect sexual life, 11 of the women reported to experience a sense of loss of their woman hood (Bilge Kaydırak and Aslan, 2016). Counseling and psychosocial support for women and their partners on the diagnosis and treatment of gynecological cancers, informing them on the merits of early diagnosis and protecting and improving a healthy life might effect change in the thought processes and attitudes of women who avoid regular gynecologic examination out of a fear of cancer diagnosis.

Conclusion

The increasing incidence of cancer both in Turkey and the world highlights the importance of early diagnosis through screening, especially when gynecologic cancers are concerned. Gynecologic examination is of crucial importance in the early diagnosis of gynecologic cancers and it also helps women getting informed on their own health and having access to healthcare. In this sense, it is important for women to have gynecologic examination and diagnostic tests on a regular basis. It is found that when women understand the importance of gynecologic examination, worry about cancer and have a positive experience with the healthcare professional being treated fairly and cared for, they tend to undergo regular gynecologic examination, whereas where they have fear of gynecologic examination, yield in zealotry, stigmatization, idea of sin and taboo, it is hard to establish a routine basis for such examination.

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