

## RESEARCH ARTICLE

# Determining the Knowledge of Women and Their Attitudes Regarding Gynecological Cancer Prevention

Mine Bekar\*, Handan Guler, Funda Evcili, Gulbahtiyar Demirel, Ozlem Duran

### Abstract

The current study determines the knowledge of female course attendees of the “Municipality Cultural Center for Women”, located in the city center of Sivas, Turkey, and their attitudes regarding gynecological cancer prevention. The participants of the study include 497 women attending one of the two Municipality Cultural Centers situated in the city center of Sivas. In this study, the sample was not selected; all participants were encompassed within the scope of our research. A total of 418 female course attendees who volunteered to participate in the research were identified as the sample. The data were collected during the months March-June 2011, by a questionnaire developed by the researchers. To compare the distribution of the collected data “Anova”, “two independent t test examples” and “chi square test” were used. The research indicates that 45.1% of the women had had gynecological examination as a consequence of a physical disorder. The reason for 54.9% of the women to have gynecological examination is to have been scanned to check for gynecological cancer, 51.2% had a pap smear test. Some 34.9% of them had obtained information about cervical cancer, 39.7% via radio, television or internet and 36.3% from a doctor. Age, education level and marital status of the women participating in this study demonstrated statistically significant correlations ( $p < 0.05$ ) with gynecological examination and undergoing a pap smear test.

**Keywords:** Gynecological cancer - women - knowledge - examination - Pap smear test

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### Introduction

Gynecological cancer is an important health problem since it leads to mortality and morbidity of women in all over the world (ACS, 2011). In Turkey, cancer is the second most common cause of death, and among the cancer deaths, the ovarian cancer is in the fourth, the endometrial cancer is in the seventh and the cervical cancer is in the ninth rank (The Ministry of Health, 2006).

The negative effects of being diagnosed with gynecological cancer on women health have many dimensions. The fear of being diagnosed with cancer, the complicated, long, invasive, and combined treatments, being under stress and the risk of complications depending on the duration of the treatment, concerns about the body shape, the sexual identity and the reproduction affect the standard of living of the woman, her partner and her family (Beşer and Öz, 2003; Kara and Fesci, 2004; Hobbs and Smith, 2006). However, as it is in many other cancer types, gynecological cancer is a disease which may be prevented and cured in case of early diagnosis. Nevertheless, some studies performed indicate that owing to lots of factors such as lack of education, lack of knowledge about scanning, economical problems, the problems of attaining health services, the fear of having pain, the embarrassment, the false beliefs about disregarding the privacy and the

scanning tests being unnecessary, women do not take the advantage of early diagnosis (Abothchie ve Shokar, 2009; Al Sairafi, 2009; Lockwood-Rayermann et al., 2009; Nakalevu, 2009; Şahin, 2009; Ali et al., 2010; Fallowfield et al., 2010; Gil et al., 2010; Jones et al., 2010; Phongsavan et al., 2010; Rama et al., 2010; Chigbu and Aniebue, 2011; Cooper et al., 2011; Hawkins et al., 2011; Kebede, 2011; Mbamara et al., 2011; Minchew, 2011; Paolino and Arossi, 2011; Trivers et al., 2011).

The health care services provided by nurses and obstetricians to maintain, sustain and advance the health status, have an important role on preventing gynecological cancer, on the early diagnosis of these diseases and the needs that may occur depending on the process of the disease. The role of nurses and obstetricians in providing the information and awareness about gynecological cancer is crucial (Lockwood-Rayermann et al., 2009; Ali et al., 2010; Savaş and Taşkın, 2011).

### Materials and Methods

The current study determines the knowledge of the female course attendees of “Municipality Cultural Center for Women” located in city center of Sivas, Turkey and their attitudes regarding gynecological cancer prevention. The participants of the study include 497 women attending

to one of the two Municipality Cultural Centers situated in the city center of Sivas. In this study, the sample is not selected; all participants are encompassed within the scope of our research. Four hundred eighteen female course attendees who volunteered to participate in the research have been identified as the sample. The data has been collected during the months March- June 2011, by a questionnaire developed by the researchers. In this form, there are questions concerning the age, educational status, marital status, profession, social security, type of the family and their knowledge about preventing gynecological cancer and their attitudes. Before the implementation of the questionnaire, the purpose of the research is explained to the course attendees and they orally consent to participate in this research. The data collected is analyzed by creating a database with the software package SPSS (14.0). To compare the distribution of the collected data “anova”, “two independent t test examples” and “chi square test” have been used.

## Results

One point seven percent of the women participating in this study are at the age of 18 and below, 18.4% are at the age of 45 and above, 84.4% are not working. 32.1% of them are high school, 29.9% of them are elementary school graduates. Sixty seven-point nine percent of them are married. All of them have social security. Fourty seven-point eight percent of them identify their socioeconomic status as middle class. Fifty three-point one percent of the women have either 2 or 3 children, 66.8% gave a birth either 2 or 3, 70.3% had 1 miscarriage, 20.4% have 4 or more living children. Sixty nine-point two percent of the women have been using birth control methods, 30% of whom are using condoms, 25% are using the traditional method. Fifteen-percent 15% of the women are smoking cigarettes and none of them are using alcohol. Fourty-point nine percent of them exercise regularly.

One-point four percent of the women have had sexually transmitted infection, 24.6% have had gynecological infection. Among the women who have had gynecological examination, (58.4%), 45.1% of them had taken because of a physical disorder. After the last physical examination, 23.4% of the women have been diagnosed with infection, 95% of whom have been cured based on their diagnosis, the rest have not been treated since they found it unnecessary. The reason for 54.9% of the women to have gynecological examination is to have been scanned to check for gynecological cancer. Fifty-one-point two percent of them have had the pap smear test and 34.9% of them have got information about cervical cancer; 39.7% of whom have obtained the information via radio, television or internet, whereas 36.3% of whom have learned from a doctor.

It has been claimed by 88.8% of the participants that there is early diagnosis and cure for gynecological cancer, by 58.4% that the obesity and by 35.6% that the diabetes and the hypertension cause endometrium cancer, by 67.2% that never being pregnant or being pregnant at an older age leads to ovarian cancer, by 53.1% that beginning sexual relationship at an early age, getting pregnant three or more

times at an early age cause cervical cancer, by 73.2% that lack of hygiene generates cervical cancer, by 67.7% that smoking cigarettes is a risk factor for gynecological cancer

It has been declared by 68.4% of the participants that abnormal menstruation during menopause or after menopause are symptoms of cancer, by 66.6% that abnormal vaginal bleeding, pain during intercourse, the expanding stomach and having pain around stomach are the symptoms of uterus cancer, by 51.9% that yellow, dirty smelly, broth color without pain, brown color flows are the symptoms of cervical cancer, by 60.8% that having wound, feeling lumps by hand, itchiness, bleeding, having pain around outer genital area are the symptoms of vulvar cancer.

It has been declared by the 62.2% of the participants that the birth control pills reduce the risk of ovarian cancer, by 59.1% that menstruation between menstrual cycles, spotting after intercourse are not the symptoms of cervical cancer, by 51% that it is required to take Pap Smear test only if women have gynecological disorder, by 54.1% that diabetes, hypertension and obesity are not risk factors for outer genital cancer, by 41.4% that one should have gynecological examination when she has a gynecological disorder, by 47.6% that exercising regularly does not prevent gynecological cancer. It is determined that these women have incorrect knowledge.

It has been known by 67.7% of the women that it is required to reduce the stress and to use techniques for handling stress for preventing gynecological cancer, by 55.7% that it is necessary to avoid diets including excessive animal fat, by 70.3% that weight control is important, 51.4% that it is important to avoid tight underwear for preventing vulvar cancer (Table 1).

It has been found that the differences between the average points of the women is statistically significant according to their education level ( $p < 0.05$ ). While the average points of the high school graduates are  $18.10 \pm 7.30$ , the average points of the elementary school graduates are  $15.00 \pm 8.74$ . In the analyses, no differences have been discovered in the average points of the women according to their age groups, marital status, profession, social security type ( $p > 0.05$ ).

It has been found that the differences in having the pap smear test is statistically significant according to the age groups of women ( $p < 0.05$ ). When the women get older, they are more likely to have pap smear test and there is a significant difference compared to the younger ones having the test (Table 2). In the analyses, it has been found that the differences in having pap smear test is statistically significant according to their education level, marital status ( $p < 0.05$ ). While it is 34.6% for elementary school graduates to have had pap smear test, it is 34.1% for high school graduates. 84.1% of the married women have had pap smear test, whereas only 15.9% of the single women have had the test.

It has been found that the differences in having the gynecological examination is statistically significant according to the marital status of the women ( $p < 0.05$ ). While 86.1% of the married women have gynecological examination, only 13.9% of the single women have had the examination. In the analyses, it has been found that

**Table 1. The Distribution of their Knowledge on Gynecological Cancer\***

The Status of Knowledge in Gynecological cancer	Cognizant		Incognizant	
	n	%	n	%
Gynecological cancer may be cured in case of early diagnosis.	371	88.8	47	11.2
Obesity is a risk factor for uterus cancer	244	58.4	174	41.6
Diabetes and hypertension are not risk factors for uterus cancer	149	35.6	269	64.4
Abnormal menstruation during menopause or during the period after menopause is a symptom of uterus cancer	286	68.4	132	31.6
Never being pregnant or being pregnant at an older age are risk factors for uterus cancer	281	67.2	137	32.8
Abnormal menstruation, pain during intercourse, frequent urinary evacuation, the stomach expansion and having pain around stomach are the symptoms of uterus cancer	279	66.6	139	33.4
Beginning a sexual relationship at an early age, getting pregnant three or more times at an early age are risk factors for cervical cancer	222	53.1	196	46.9
Birth control pills reduce the risk of uterus cancer	158	37.8	260	62.2
Lack of hygiene generates the risk of cervical cancer	306	73.2	112	26.8
Menstruation between menstrual cycles, spotting after intercourse are not the symptoms of cervical cancer	171	40.9	247	59.1
Yellow, dirty smelly, broth color without pain, brown color flows are the symptoms of cervical cancer	217	51.9	201	48.1
Having HIV infection is a risk factor for cervical cancer	214	51.2	204	48.8
For cervical cancer prevention one has to be protected against sexually transmitted diseases and has to use condom	277	66.3	141	33.7
There is no vaccine available for cervical cancer prevention	209	50	209	50
Cervical cancer is diagnosed by Pap Smear test	258	61.7	160	38.3
It is required to take Pap Smear test only if women have gynecological disorder	205	49	213	51
It is important to avoid tight underwear for being protected against genital (vulvar) cancer	213	51.4	205	48.6
Diabetes, hypertension and obesity are not risk factors for outer genital cancer	192	45.9	226	54.1
HIV is a risk factor for outer genital cancer	229	54.8	189	45.2
CYBH is not a risk factor for vulvar cancer	221	52.9	197	47.1
Having wound, feeling lumps by hand, itchiness, bleeding, having pain around outer genital area are the symptoms of vulvar cancer	254	60.8	164	39.2
Usage of pills during pregnancy, being exposed to radiation are risk factors for vaginal cancer	212	50.7	206	49.3
Frequent urinary evacuation, having pain when stooling are the symptoms of vaginal cancer	149	35.6	269	64.4
Gynecological examination should be taken when one has a gynecological disorder	245	58.6	173	41.4
Exercising regularly does not prevent gynecological cancer	219	52.4	199	47.6
It is required to reduce the stress and to use techniques for handling stress for being preventing gynecological cancer	283	67.7	135	32.3
Smoking cigarettes is a risk factor for gynecological cancer	283	67.7	135	32.3
Avoiding diets including excessive animal fat is important for preventing gynecological cancer	233	55.7	185	44.3
Weight control is important for preventing gynecological cancer	294	70.3	124	29.7

\*Total n (%)=418 (100)

**Table 2. The Distribution of having Pap Smear Test According to Their Age Groups**

Age Groups	Having Pap Smear Test				Total	
	Have		Did not Have		n	%
	n	%	n	%	n	%
≤18	0	0	7	3.4	7	1.7
19-24	22	10.3	52	25.5	74	17.7
25-29	23	10.7	27	13.2	50	12.0
30-34	36	16.8	34	16.7	70	16.7
35-39	51	23.8	29	14.2	80	19.1
40-44	34	15.9	26	12.8	60	14.4
≥45	48	22.5	29	14.2	77	18.4
Total	214	100	204	100	418	100

\*X<sup>2</sup>=31.123 and p=0.001

the differences in having gynecological examination is statistically significant according to their education level, their ages (p<0.05). While 1.6% of the literate women have had the gynecological examination, 11.5% of women graduate of higher education have had the examination. The women who is 18 or below have never had gynecological examination whereas, 23% of the women who is 45 or above have had the gynecological examination.

## Discussion

Gynecological cancer is a disease which can be prevented and cured when treated right. 88.8% of the women in our study think that it is possible to have early diagnosis and to have been cured of gynecological cancer. In the study of Fallowfield et al. (2010) almost all of the women (99.4%) think that being scanned can reduce the risk of mortality and 96.2% think that being diagnosed with cancer after scanning may affect their prognosis

positively. Additionally, for women to take advantage of having early diagnosis and to have the opportunity to be cured from cancer, their knowledge level on the risk factors of gynecological cancer and on the symptoms, protection and scanning is important. In the studies, the knowledge of women on gynecological cancer and early diagnosis is found to be insufficient (Eftekhari ve Yarandi, 2004, Kebede et al., 2011). However, knowing the risk factors about gynecological cancer is crucial for being cured and being protected. While it is known by more than half of the women that obesity, by almost one third of the women that diabetes and hypertension are risk factors for endometrium cancer, two third of the women know that never being pregnant or being pregnant at an older age are risk factors for ovarian cancer, more than half of the women that beginning sexual relationship at an early age, getting pregnant three or more times at an early age, lack of hygiene generate the risk factor for cervical cancer.

One third of the women in our study know the importance of being protected against sexually transmitted diseases for preventing cervical cancer. Sexually transmitted Human Papilloma Virus (HPV) is one of the factors causing cervical cancer which is accepted as the second most common reason for cancer deaths of women all over the world. In a study performed in Turkey about HPV prevalence, 23% of the women have been infected with HPV (Dursun et al., 2009). In the study carried out by Gil et al. (2010), women accept that HPV is a risk factor for cervical cancer. As for the study of Donders et al. (2009), while the women who indicate HPV as a reason for cervical cancer and know that for being protected it is important to be vaccinated was 50% in 2007, in 2008 it has reached to 80%. On the other hand, in different studies it has been determined that the level of women knowledge on the relation between HPV and cervical cancer is poor (Gil

et al., 2010; Rama et al., 2010; Paolini ve Arrossi, 2011).

The symptoms of Gynecological cancer, show differences according to the organ affected by the cancer. Therefore, it is possible to have early diagnosis by recognizing some symptoms of different types of gynaecological cancer. In our study, the two third of the women have knowledge of some symptoms of ovarian cancer, more than half have information about some symptoms of cervical cancer, 60.8% know some symptoms of vulvar cancer, 68.4% are aware of some symptoms of endometrium cancer. Additionally, a large group of them know that bleeding like spotting after instrumental sexual activities and intercourse is a symptom of cervical cancer. Despite it is known that unaccountable vaginal bleeding is a risk factor for cervical cancer, the symptoms of other cancer types may not have been known commonly (Phongsavan et al., 2010; Cooper et al., 2011).

More than half of the women in our study think that to be protected against gynecological cancer, handling stress, avoiding diets including excessive animal fat, weight control, exercising regularly are important. In "2008 Health Style Study" performed by Trivers et al. (2011) mention the importance of women being educated about the symptoms of gynecological cancer. Half of the women in our study know that it is important to use tight underwear for being protected against vulvar cancer, and it is possible to be protected against cervical cancer by vaccine. In a study performed 62% of the women consider vaccination as an option for preventing cervical cancer (Phongsavan et al., 2010).

In our study, while there is no statistical difference between the average knowledge points of the women about gynaecological cancer according to their socioeconomic (age, marital status, profession, social security) status, the study of Breitkopf et al. (2005) is important in the aspect that it shows the women with poor socioeconomic status have deficient knowledge on gynecological cancer (Breitkopf et al., 2005). In the study of Hawkins (2005), the level participants' knowledge, who are in the 18 to 34 age bracket with poor educational background and low income, on gynecological cancer is low. Similar to Hawkins study, our research indicates that the higher the education level of the women, the higher the average knowledge points related to gynecological cancer.

The methods developed for early diagnosis of gynecological cancer increases the success rate in its cure. Especially, the early diagnosis of cervical cancer is thought to be improved with the help of pap smear test (Phongsavan et al., 2010). Even though more than half of the women participating in our study have pap smear test, the percentage of the female university students in Gana having pap smear test is determined to be 12 (Abothchie ve Shokar, 2009). This percentage is quite low according to the results obtained by our study.

The studies indicate that women have lack of knowledge regarding the scanning tests, the frequency of having tests and the purpose of having the tests (Abothchie ve Shokar, 2009; Al-Sairafi, 2009; Nakaluvu, 2009; Phongsavan et al., 2010; Chigbu ve Aniebue, 2011; Cooper et al., 2011; Hawkins et al., 2011; Mbamara et al., 2011; Minchev et al., 2011; Paolino et al., 2011). More than half

of the women in our study think that they should take pap smear test only when they have gynecological disorders. In a research related to the knowledge level and awareness of the women about pap smear and gynecological tests, 63.3% of the women think that pap smear test is done for the diagnosis of vaginal cancer, sexually transmitted diseases, uterus cancer and infections (Hawkins et al., 2011). In the study of Mbamara et al. (2011) it is determined that 85% of the women have not had the pap smear scanning test since they have never heard of it. In a study performed in Argentina about the comparison between the women who have had a scan for diagnosis of cervical cancer and who have not had, it is determined that 49% of the women who have had the test, and 73% of the women who have not had, have lack of knowledge on pap smear test (Paolini et al., 2011).

It is possible to reduce the lack of knowledge and false beliefs of women on the subject by widespreading the scanning programs. The pap smear test and routine examinations provide the women with the opportunity to be educated by the personnel of the health sector based on their needs. In our study, the relation between the women having pap smear test and having gynecological examination, and their getting older, becoming more educated and their marital status are found to be statistically significant. In many studies performed, the education level of the women is considered to be a factor affecting their average knowledge points on gynecological cancer (Breitkopf et al., 2005; Parker et al., 2006; Lacour et al., 2008). There are also studies indicating that there is a relation between the knowledge level, education, marital status and the age of the women regarding the prevention of cancer, and knowing about scanning tests for cancer and to have those tests (Al-Sairafi, 2009; Chigbu et al., 2011; Mbamara et al., 2011). The role of personnel in the health sector is very important for women to have information about gynecological cancer for protecting against it and improving the health.

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