

Original Article**Cervical Cancer and Pap Smear Test Health Beliefs and Health-Promoting Lifestyle of Women in Turkey****Nuray Egelioglu Cetisli, PhD**

Asistant Professor, Izmir Katip Celebi University, Faculty of Health Sciences, Izmir, Turkey

Ekin Dila Top, MSc, PhD Candidate

Lecturer, Izmir Katip Celebi University, Faculty of Health Sciences, Izmir, Turkey

Gülşen Işık,

Research Assistant, Izmir Katip Celebi University, Faculty of Health Sciences, Izmir, Turkey

Correspondence: Nuray Egelioglu Cetisli, Asistant Professor, Izmir Katip Celebi University, Faculty of Health Sciences, Izmir, Turkey Email: nurayegelioglu@gmail.com**Abstract****Background:** Cervical cancer is one of the most common cancers in women.**Objective:** The purpose of this study is to determine women's beliefs regarding cervical cancer and Pap smear test health and whether they engaged in a health-promoting lifestyle. **Methods:** This descriptive study was conducted on women over 18 years old who were married, sexually active, and not diagnosed with gynecological cancer. Participants in the study were women who applied to the obstetrics and gynecology outpatient clinic of a university hospital in Izmir from December 15th, 2014 to February 15th, 2015. Two hundred ten women participated in the study. Data were collected using the Demographic and Gynecologic Identification Form, Health Belief Model Scale for Cervical Cancer and the Pap Smear Test and Health-Promoting Lifestyle Profile II.**Results:** Only 21.9% of the respondents had a Pap test annually. A positive weak relationship was found between subscale of susceptibility to cervical cancer and the Health-Promoting Lifestyle Profile II total score, spiritual growth, interpersonal relations and stress management. A positive relationship was found between health motivation and Pap smear benefit with the Health Promoting Lifestyle Profile II total score and all its subscales. A negative relationship was found between Pap smear barriers and the Health Promoting Lifestyle Profile II total score together with all of its subscales.**Conclusion:** The intention to have a Pap test is higher and barriers are lower for women who have a health-promoting lifestyle.**Key words:** cervical cancer, health beliefs, health promotion, pap smear**Introduction**

Cervical cancer is the third most frequently diagnosed cancer worldwide and is the fourth leading cause of cancer death in females. In Turkey, it is the third most common type of cancer among gynecological cancers, with an incidence of 4.5 cases per 100000 (Ministry of Health, 2014). Cervical cancer can be diagnosed in its early stages and can be medically treated. Because the formation period of cervical cancer is long and 90-95% of pathological changes in the epithelia can be determined by the Pap smear test, the importance of early diagnosis is evident. After application of screening programs based on social status and treatment of precancerous

lesions, the mortality and incidence of cervical cancer decreased by 34-80% in developed countries in the last 50 years (Akyüz et al., 2006; Oshima and Maezawa, 2013; Patridge et al., 2014; Shekhar et al., 2013). However, in developing countries where health services are limited and there are poor or no screening programs, cervical cancer is still the leading cause of cancer death for females (Byrd et al., 2004; Demirtas and Acikgoz, 2013; Holroyd et al., 2004; Karabulutlu, 2013; Obel et al., 2014). One's health is promoted by a feeling of personal control over it. Overall health and wellbeing can be sustained by basic measures to prevent illnesses and obtain early diagnoses. The Pap smear test is a trustable test for early diagnosis of

cervical cancer. It is vitally important to decrease and prevent cancer deaths by diagnosing cervical cancer in a localized or pre-metastasis phase (Demirtas and Acikgoz, 2013; Esin et al., 2011; Guvenç et al., 2013; Jia et al., 2013; Julinawati et al., 2013).

According to the American College of Obstetricians and Gynecologists, cervical cancer screenings (CCS) should begin at the age of 18 or at the initiation of sexual activity. The literature recommends that women who have had three normal Pap smears at 1-year intervals decrease the frequency of screening to every 2–3 years in consultation with their physicians. The latest American Cancer Society guidelines advise women aged 70 years or older to discontinue screening if they have had three or more normal Pap test results and no abnormal results in the past 10 years. Invasive cervical cancer is frequently diagnosed in women aged 50 years and older. Approximately half of women with newly diagnosed cervical cancer have never had a CCS (ACOG Committee Opinion, 2012).

It has been determined that the frequency of search programs is still not at a sufficient level in developing countries, including Turkey. In Turkey, 77.9% of women stated that they had not had a Pap test (Ministry of Health, 2014). There are many factors affecting whether women have a Pap smear test. When studies analyzed demographic and other factors, the affecting factors were identified as education level, social status, knowledge about cervical cancer and risk factors, lack of related symptoms, parents with a history of cancer (Akyüz et al., 2006; Demirtas and Acikgoz, 2013; Karabulutlu, 2013; Jia et al., 2013; Demirgöz Bal, 2014; Reis et al., 2012; Bessler et al., 2007; Paz-Soldan et al., 2010; Ranabhat et al., 2014; Tuna Oran et al., 2008; Oranratanaphan et al., 2010; Sirowich, 2005), feeling healthy herself (Demirtas and Acikgoz, 2013; Jia et al., 2013; Wong et al., 2009; Yoo et al., 2011; Kivistik et al., 2011). In Muslim populations such as Turkey, there are additional factors besides demographic factors such as feeling ashamed of the gynecological examination and fear of the Pap test (Akyüz et al., 2006; Demirtas and Acikgoz, 2013; Karabulutlu, 2013; Guvenç et al., 2013; Demirgöz Bal, 2014; Reis et al., 2012; Tuna Oran et al., 2008; Demirtas, 2013; Gümüş and Çam, 2011).

The literature emphasizes the importance of the Pap smear in early diagnosis of cervical cancer and women's healthy lifestyle behavior (Julinawati et al., 2013; Reis et al., 2012; Paz-Soldan et al., 2010; Tuna Oran et al., 2008; Kivistik et al., 2011; Ackerson et al., 2015). The purpose of this study was to determine women's beliefs regarding cervical cancer and the Pap smear test and a health-promoting lifestyle of women.

Methods

Study design and samples

This descriptive study was conducted with women who attended the gynecology outpatient clinics of a university hospital in Izmir, Turkey from December 15th, 2014 to February 15th, 2015. Two hundred ten women participated in the study. The acceptance criteria were as follows: Turkish women who (1) are 18 years old or older, (2) are married and sexually active, (3) are not diagnosed with gynecological cancer, and (4) are willing to participate in the study.

Instruments

Data were obtained using the 'Demographic and Gynecologic Identification Form' developed by researchers, the 'Health Belief Model Scale for Cervical Cancer and the Pap Smear Test' developed and validated by Güvenç et al. (2011), and the 'Health-Promoting Lifestyle Profile II (HPLP II)' developed by Walker et al. (1996) and validated by Bahar et al. (2008) in Turkish.

Demographic and Gynecological Identification Form

The demographic form was developed by a review of the literature. This form consisted of 11 questions. These questions were adapted to determine the women's socio-demographic (age, education, income, and employment status) and gynecological characteristics (knowledge about cervical cancer and the Pap smear, the source of this knowledge and family history of cervical cancer).

Health Belief Model Scale for Cervical Cancer and the Pap Test

This scale was developed by Guvenc et al. (2011) as a 5-point Likert-type scale. This scale has 35 items in five subscales of susceptibility to cervical cancer (1-3 items), seriousness (4-10 items), health motivation (19-21 items), Pap smear benefits/health motivation (11-18 items),

and Pap smear barriers (22-35 items). All items of the subscales have the following five-point Likert-type response choices: completely disagree (1 point), disagree (2 points), neutral (3 points), agree (4 points) and completely agree (5 points). Each of the subscales was evaluated separately. There was no total score; instead, five subscale scores were obtained for each participant. High scores indicate increased likelihood of developing cervical cancer and a serious attitude towards and high motivation to have a Pap test. Excluding subscale of barrier perception, all other subscales were positively related to behavior of having a Pap test. The high score of barrier perception shows that participants have high barriers for having the Pap test. In the original test, Cronbach's alpha coefficients for the five subscales were between 0.62 and 0.86 [30]. In this study, the Cronbach's alpha coefficients were between .76 and .88 for the five subscales.

Health-Promoting Lifestyle Profile II

The Health-Promoting Lifestyle Profile II (HPLP II) survey was developed by Walker et al. (1996). In 2008, it was translated into Turkish, and validity-reliability studies were conducted by Bahar et al. This scale has 52 articles and 6 subscales, health responsibility (9 items, min-max:9-36), physical activity (8 items, min-max:8-32), nutrition (9 items, min-max:9-36), spiritual growth (9 items, min-max:9-36), interpersonal relations (9 items, min-max:9-36) and stress management (8 items, min-max:8-32). Higher scores indicate a positive health-promoting lifestyle. The lowest score is 52 and the highest score is 208 for the complete test. The potential responses are never, sometimes, frequently and regularly. Never is scored as 1, sometimes as 2, frequently as 3 and regularly as 4. In the original testing, the Cronbach's alpha coefficients for the total score and six subscales were between 0.79 and 0.94 [31]. In this study, the Cronbach's alpha coefficients were between 0.82 and 0.95 for the total score and six subscales.

Data analysis

In this study, a face-to-face structured interview with each woman was conducted by the

researcher after a gynecological examination. The time allocated for a woman to complete the questionnaires was approximately 15-20 minutes. All the data were analyzed by SPSS version 21.0 for Windows.

The socio-demographic properties of women participating in the study are reported as a number and percentage distribution. To analyze the average score of the Health-Promoting Lifestyle Profile and the average score of Health Belief Model Scale for Cervical Cancer and the Pap Test, confirmation of normal distribution was obtained, and parametric (variance analyze, independent sample t test) and non-parametric tests (Man Whitney U and Kruskall Wallis) were performed. Correlation analysis was used to determine the relationship between the Health-Promoting Lifestyle Profile and Health Belief Model Scale for Cervical Cancer and the Pap Test. P values <.05 were accepted as statistically significant.

Ethical considerations

Ethical approval to conduct the study was obtained from the ethical committee of IKCU (decision numbered 2014/244 and dated 11.12.2014). Each participant gave written consent

Results

Characteristics of participants

Table 1 shows the demographic characteristics of the women who participated in the study. Their average age was 33.73 ± 9.65 and average marriage period was 12.30 ± 10.32 years.

The majority of participants were educated at a primary school level (64.3%), 71.9% of them were not working, and 57.6% of them had a moderate income. Overall, 25.2% of the participants stated that a woman in their family circle had a diagnosis of gynecological cancer.

However, while 40% of them stated that they had information about cervical cancer and the Pap test, and 61.9% of these women obtained this knowledge from a health professional, only 21.9% of them had a Pap test annually (Table 1).

Table 1. Participant Characteristics

Variables	Mean	SD
Mean age	33.73	9.65
Average marriage period	12.30	10.32
	n	%
Education level		
Primary school	135	64.3
High school	38	18.1
University	37	17.6
Employment status		
Employed	59	28.1
Unemployed	151	71.9
Income		
Low income	73	34.8
Moderate income	121	57.6
High income	16	7.6
Having the Pap test annually		
Yes	46	21.9
No	164	78.1
Whether she had information about the Pap test		
Yes	84	40.0
No	126	60.0
The source of the information about the Pap test		
Health professional	52	61.9
Media	25	29.8
Other	7	8.3
Gynecologic cancer history in the family		
Yes	53	25.2
No	157	74.8
TOTAL	210	100

Table 2. The Relationship Between HPLP II Total Score and Subscale Scores and the Health Belief Model Scale for Cervical Cancer and the Pap Test Subscale Scores

Health-Promoting Lifestyle Profile II	Health Belief Model Scale for Cervical Cancer and the Pap Test Subscale				
	Susceptibility (7.90±2.61)	Seriousness (22.84±5.72)	Health motivation (9.38± 2.62)	Pap smear benefit (29.20±6.46)	Pap smear barriers (41.60±11.90)
Total Score (117.92±25.44)	r=0.22 p=0.001	r=0.07 p=0.267	r=0.35 p=0.000	r=0.39 p=0.000	r=-0.38 p=0.000
Health responsibility (20.57±4.92)	r=0.10 p=0.132	r=0.09 p=0.168	r=0.24 p=0.000	r=0.37 p=0.000	r=-0.27 p=0.000
Physical activity (17.43±4.99)	r=0.11 p=0.103	r=-0.01 p=0.853	r=0.38 p=0.000	r=0.13 p=0.049	r=-0.18 p=0.007
Nutrition (19.16±4.92)	r=0.13 p=0.056	r=-0.00 p=0.938	r=0.32 p=0.000	r=0.20 p=0.003	r=-0.28 p=0.000
Spiritual growth (20.44±5.23)	r=0.26 p=0.000	r=0.08 p=0.246	r=0.28 p=0.000	r=0.45 p=0.000	r=-0.43 p=0.000
Interpersonal relations (22.69±5.56)	r=0.31 p=0.000	r=0.14 p=0.033	r=0.29 p=0.000	r=0.51 p=0.000	r=-0.46 p=0.000
Stress management (17.61±4.24)	r=0.21 p=0.002	r=0.08 p=0.247	r=0.29 p=0.000	r=0.29 p=0.000	r=-0.27 p=0.000

Table 3. The Relationship Between Socio-demographic Characteristics and The HPLP II Total Score and Subscale Scores and The Health Belief Model Scale for Cervical Cancer and the Pap Test Subscales Scores

Demographic characteristics	Susceptibility	Seriousness	Health motivation	Pap smear benefit	Pap smear barriers	HPLP II total Score	Health responsibility	Physical activity	Nutrition	Spiritual growth	Interpersonal relations	Stress management
Education level												
Primary school	7.42±2.53	22.22±5.51	8.95±2.53	27.76±6.48	44.58±11.61	115.42±27.62	20.29±5.15	16.92±4.94	18.92±4.97	19.97±5.86	22.07±6.19	17.23±4.53
High school	8.39±2.48	22.45±5.96	9.97±2.89	30.47±5.30	33.97±10.73	122.28±20.88	20.86±4.86	18.21±4.36	19.78±5.11	21.44±4.01	23.78±4.23	18.18±3.48
University	9.10±2.59	25.39±5.68	10.34±2.32	33.13±5.64	38.47±9.94	122.56±20.10	21.29±4.03	18.48±5.57	19.37±4.61	21.16±3.43	23.81±3.83	18.43±3.72
F	7.24	4.79	5.49	12.09	14.90	1.83	0.68	2.00	0.49	1.60	2.34	1.57
p	0.001	0.009	0.005	0.000	0.000	0.162	0.507	0.138	0.610	0.203	0.098	0.210
Employment Status												
Employed	8.84±2.57	23.16±5.74	9.86±2.60	31.66±5.92	34.64±10.66	120.42±21.56	20.77±4.18	17.72±5.17	19.52±4.88	21.00±3.83	23.27±4.31	18.11±4.19
Unemployed	7.52±2.53	22.71±5.73	9.19±2.61	28.23±6.42	44.33±11.26	116.95±26.81	20.49±5.18	17.31±4.92	19.01±4.95	20.23±5.68	22.46±5.98	17.42±4.25
t	3.36	0.51	1.66	3.54	-5.68	0.88	0.37	0.53	0.66	0.95	0.94	1.06
p	0.001	0.607	0.098	0.000	0.000	0.376	0.709	0.593	0.505	0.340	0.346	0.287
Whether she had information about the Pap test												
Yes	8.62±2.72	22.60±5.38	10.06±2.59	31.20±6.08	38.46±11.93	119.77±25.49	20.81±4.96	18.44±5.40	19.19±5.28	20.63±4.81	22.86±5.55	17.80±4.14
No	7.42±2.43	23.00±5.95	8.94±2.55	27.88±6.39	43.66±11.47	116.72±25.44	20.41±4.90	16.77±4.60	19.14±4.70	20.32±5.50	22.57±5.59	17.49±4.31
t	3.33	-0.49	3.07	3.74	-3.15	0.84	0.57	1.40	0.07	0.42	0.37	0.51
p	0.001	0.624	0.002	0.000	0.002	0.398	0.564	0.062	0.942	0.670	0.711	0.604
Where the information about the Pap test was obtained												
Health professional	8.98±2.63	23.25±5.92	10.69±2.29	32.57±5.59	34.51±10.60	127.94±22.35	22.15±5.09	19.98±5.51	20.26±5.33	22.30±3.70	24.73±4.28	18.50±4.00
Media	7.92±2.64	22.04±3.64	9.12±2.33	28.40±5.93	43.92±11.47	103.72±21.82	18.04±3.50	15.32±3.48	16.72±3.45	17.80±5.26	19.48±5.65	16.36±3.94
Other	8.71±3.40	20.28±6.04	9.00±4.20	30.85±7.05	46.85±11.90	126.28±42.76	22.85±6.91	19.28±6.29	21.71±8.47	20.00±7.18	22.85±9.15	19.57±6.62
KW	2.52	4.25	6.53	7.47	13.52	13.42	11.79	15.09	10.17	11.83	11.43	3.88
p	0.28	0.11	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Gynecologic cancer history in the family												
Yes	9.00±3.19	22.67±6.67	9.52±2.97	31.28±6.57	37.83±12.16	121.94±25.39	21.39±5.32	17.62±4.72	19.75±4.60	21.50±5.23	24.01±5.40	17.64±4.27
No	7.52±2.27	22.89±5.39	9.33±2.50	28.49±6.29	42.88±11.57	116.57±25.39	20.29±4.76	17.36±5.08	18.96±5.03	20.08±5.20	22.24±5.56	17.61±4.24
t	3.65	-0.24	0.45	2.75	-2.71	1.33	1.40	0.31	1.01	1.71	1.02	0.04
p	0.000	0.811	0.648	0.006	0.007	0.185	0.161	0.750	0.312	0.088	0.271	0.965

Relationship between 'Health Belief Model Scale for Cervical Cancer and the Pap Smear Test' subscale and Health-Promoting Lifestyle Profile II

The Health Belief Model Scale for Cervical Cancer and the Pap Test mean subscale scores were as follows: susceptibility to cervical cancer 7.90 ± 2.61 ; seriousness 22.84 ± 5.72 ; health motivation 9.38 ± 2.62 ; Pap smear benefit 29.20 ± 6.46 ; Pap smear barriers 41.60 ± 11.90 . The HPLP II mean total score and subscales as follows: total score 117.92 ± 25.44 ; health responsibility 20.57 ± 4.92 ; physical activity 17.43 ± 4.99 ; nutrition 19.16 ± 4.92 ; spiritual growth 20.44 ± 5.23 ; interpersonal relations 22.69 ± 5.56 ; stress management 17.61 ± 4.24 (Table 2).

A positive weak relationship was found between the subscale of susceptibility to cervical cancer and HPLP II total score ($r=0.22$, $p=0.001$), spiritual growth ($r=0.26$, $p=0.000$), interpersonal relations ($r=0.31$, $p=0.000$) and stress management ($r=0.21$, $p=0.002$). No relationship was found between the seriousness subscale and the HPLP II total score and also with any subscale ($p>0.05$). A positive relationship was observed between health motivation and Pap smear benefit with the HPLP II total score and all its subscales. A negative relationship was found between Pap smear barriers and the HPLP II total score together with all its subscales ($p<0.00$) (Table 2).

Relationship between socio-demographic characteristics and the 'Health Belief Model Scale for Cervical Cancer and the Pap Smear Test' subscale and Health-Promoting Lifestyle Profile II

As shown in Table 3, there is a statistically meaningful difference between the subscales of susceptibility to cervical cancer, seriousness, health motivation, Pap smear benefit and Pap smear barriers. The susceptibility to cervical cancer and Pap smear benefit subscale score average of working women with a mother who had a gynecological cancer diagnosis was higher than that of non-working women without a mother with a gynecological cancer diagnosis. Additionally, non-working women's ap smear barrier subscale score average is lower, and this difference is statistically significant. In regard to their knowledge about cervical cancer and the Pap test, there is a statistically meaningful difference between their subscale score on

susceptibility to cervical cancer, health motivation, Pap smear barriers and Pap smear benefit. The health motivation and Pap smear benefit subscale scores of women who obtained the information about cervical cancer and the Pap test from a health professional were higher than those of women who obtained the information elsewhere. Additionally, Pap smear barrier subscale score average of women who obtained the information about cervical cancer and the Pap test from a health professional is less, and this difference is statistically significant ($p<0.05$) (Table 3).

There is not a statistically meaningful difference between the HPLP II total score and its subscales and women's average age, average marriage duration, education level, employment status, cervical cancer status or Pap test knowledge. There is a statistically significant ($p<0.05$) difference between HPLP II total score, health responsibility, physical activity, spiritual growth and interpersonal relations subscales and whether the women had any knowledge about cervical cancer and the Pap test. However, there is no relationship with the subscale of stress management ($p>0.05$) (Table 3).

Discussion

There are many studies on the benefits of having the Pap test in preventing deaths from cervical cancer which is one of the most common gynecological cancers around the world. The findings of these studies show that the total rate of women who had a Pap test is low (21.9%). The proportion of women who have had a Pap test is reported to be different in studies in different countries and ethnical groups (Sirowich et al, 99% and Ackerson et al, 80.6% in the USA, Byrd et al, 69% in Spain, Bessler et al, 38% in Jamaica, Ranabhat et al, 15.7% in Nepal). For Turkey, this ratio is reported as 32.4% by Demirtas and Acikgoz (2013), 30.3% by Demirgoz Bal (2014), 29.5% by Reis et al (2012), 29% by Esin et al (2011), 27.1% by Tuna Oran et al (2008), 20.8% by Gumus et al (2011) and 16.6% by Karabulutlu (2013). However, cervical cancer is one of the most common cancers among women in Turkey because of the lack of regulations on early diagnosis methods for cervical cancer and lack of focus on screening programs. Women cannot obtain sufficient health services. Additionally, the absence of media attention may be another factor of low ratio of having the Pap test and lack of knowledge.

This study found that women who are graduates of middle and high school placed more importance on the Pap test and cervical cancer, were more sensitive to the implications of (not) getting the test, and had higher motivation and fewer barriers to getting the test. In China, in a region that has a high incidence of cervical cancer, Jia et al (2013) ($n=5929$) found that women who are graduates of middle and higher school are more willing to undergo cancer screening tests and are sensitive to the subject. Demirtas et al (2013), Demirgoz Bal (2014), Reis et al (2012) and Karabulutlu (2013) found that the ratio of women who have had the Pap test increases and barriers decrease as their education level increases. Bessler (2007) and Akyuz et al (2006) found the same results. Here, the susceptibility to cervical cancer and Pap smear test benefit average subscale score of working women with a mother with a diagnosis of gynecological cancer are higher compared to non-working women without a mother with a cancer diagnosis. Similarly, their Pap smear barrier subscale score average is lower. Jia et al (2013) found that women with parents with a history of cancer are more sensitive to the subject and more willing to have cervical cancer screening tests. Demirtas et al (2013) presented the same result. Tuna Oran et al (2008) reported that women who have parents with a history of cancer have a higher ratio of Pap test performance. Karabulutlu (2013) and Demirgoz Bal (2014) reported in their study that unemployed women have a lower ratio of having the screening test. The findings of this study are consistent with those in the literature as well. To increase the frequency of women having the Pap test and the level of the knowledge about cervical cancer, the target groups on screening and instruction programs should be focused on women who are not working, who have low education level and who have parents with a history of cancer. Because they have more risk, women who have parents with a history of cancer should be the primary focus of programs.

This study determined that women who obtain information about cervical cancer and the Pap test were more sensitive to it. They also have greater motivation, higher benefit perception and less barrier perception. Jia et al (2013) showed that women who have knowledge about cervical cancer are more willing to have the screening tests, and they are more sensitive about the subject. In the qualitative study of Wong et al

(2009), in which they analyzed the knowledge, behavior and attitude of Malaysian women who had not had a Pap test before, participants who lack information about the Pap test and cervical cancer. Oranratanaphan et al. (2010) analyzed the knowledge, attitude and application of health professionals in Thailand about cervical cancer screening and found that women have sufficient knowledge about the importance of the Pap test, early diagnosis and preliminary phase treatment. However, the awareness about the risk factors for cervical cancer was found to be unsatisfactory, and the reasons for avoiding the Pap test are listed as fear of vaginal examination, feelings of shame and absence of symptoms. Paz Soldan et al (2010) performed a focused interview with 22 women to determine the knowledge level and barriers of Peruvian women about cervical cancer and the Pap test, and they found that fear, shaming and lack of knowledge are the main barriers to having the Pap test. Similar to the results stated in the literature, this study found that women who do not have knowledge about cervical cancer and the Pap test and whose awareness is poor avoid having the Pap test. Providing information about the importance of the issue, informing patients how the test will be conducted and health professionals support of women is expected to increase the ratio of Pap test performance. These findings are thought to be related to the high population of Muslims (99%) in Turkish society.

Muslim society reinforces great modesty in women, and cervical cancer screening can cause uncomfortable embarrassment. Socio-cultural factors and religious norms can contribute to barriers to cervical cancer screening. Turkish women's fatalistic beliefs, gender roles, cultural factors, or shame as a result religious norms could have influenced decisions to have a Pap smear test. Healthcare provider awareness of socio-cultural factors, health beliefs, and the importance of effective communication can help them provide Turkish and other women with a positive gynecological examination experience.

This study found that women who have a health-promoting lifestyle profile were more sensitive to cervical cancer and they were more motivated, found the Pap test helpful and had fewer barriers to having the Pap test. Similar results were reported in the literature. Tuna Oran et al (2008) reported that the HPLP total score and subscale score of women who had a Pap smear test were statistically significantly higher compared to

women who did not have a Pap smear test. One of the most important barriers to having the Pap test is the woman feeling healthy.

Ranabhat et al (2014), Wong et al (2009), Jia et al (2013), Yoo et al (2011), Guvenc et al (2013) and Kivistik et al (2011) reported that not having a health-promoting lifestyle profile is the reason for not having the Pap test. Health promotion behaviors are any actions or behaviors taken by individuals to improve or promote well-being or health. Lifestyle behaviors such as feeling healthy, physical activity, healthy eating and coping with stress are thought to be effective behaviors for preventing cancer and protecting overall health. The results of this study also support this.

Conclusions

In conclusion, we discovered a strong relationship between cervical cancer screening practices and the health-promoting lifestyle of these women. Although it is not possible to generalize our results to all women, the HPLP may provide reliable results in evaluating the cervical cancer screening behavior of women. However, additional studies among different subgroups of women investigating the relationship between cervical cancer screening behavior and HPLP are needed.

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