RESEARCH ARTICLE

Promoting Attendance at Cervical Cancer Screening: Understanding the Relationship with Turkish Womens' Health Beliefs

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Abstract

    <u>Background</u>: The aim of the study was to identify the relationship between 'Health Belief Model Scale for Cervical Cancer and the Pap Smear Test' subscale scores and demographic/gyneco-obstetric characteristics. <u>Materials and Methods</u>: This cross-sectional study was conducted with 256 women. Data were obtained using the 'Demographic and Gyneco-Obstetric Identification Form' and the 'Health Belief Model Scale for Cervical Cancer and the Pap Smear Test. <u>Results:</u> The percentage of women who had heard about the Pap test was 77.7 whereas only 32.4% had actually undergone the test. Some 45.7% of the women stated that they did not know the reason for having a Pap test. Women who had obtained a Pap smear test had statistically significantly fewer perceived barriers than those who had never had (p<0.05). Scores with regard to the subscales including 'Benefits of Pap Smear Tests and Health Motivation', 'Perceived Seriousness of Cervical Cancer', 'Susceptibility to Cervical Cancer' and 'Cervical Cancer Health Motivation' did not differ with demographic/gyneco-obstetric characteristics such as womens' educational level, whether or not young age at first marriage, whether or not having family history of female cancer, and whether or not having had a Pap test (p>0.05). <u>Conclusions:</u> Increasing knowledge about benefits of Pap smear tests, increasing motivation to obtain Pap Smear Test and increasing perceived seriousness of cervical cancer could promote attendance at cervical cancer screening. Different strategies are needed for behavioural change. Implementation of educational programmes by nurses in a busy environment could result in a major clinical change, based on the findings of this study.

Keywords: Cervical cancer - cervical cancer screening - health belief - Pap smear test - Turkish women

Introduction

    According to the World Health Organization (WHO, 2012) cervical cancer is the second biggest cause of female cancer mortality worldwide. Global cervical cancer incidence increased from 378,000 cases per year in 1980 to 454,000 cases per year in 2010- a 0.6% annual rate of increase. Cervical cancer death rates have been decreasing but the disease still killed 200,000 women in 2010, of whom 46,000 were aged 15-49 years in developing countries (Forouzanfar et al., 2011). The death rates in parts of Central and Eastern Europe are two to four times higher than in countries of Western Europe (WHO, 2007). According to data published by the Ministry of Health for the year 2003, in Turkey cervical cancer ranked third among genital cancers, with 763 cases and an incidence rate of 2.2 (Ministry of Health, Turkey, 2008). Pap (cervical) smear testing is an effective method of detecting, preventing and delaying the progress of cervical cancer. Over the past three decades, cervical cancer rates have falen in most of the developed world, probably as a result of screening programmes. In contrast, rates in most

developing countries have risen or remained unchanged (Güner and Taşkıran, 2007; Forouzanfar et al., 2011).

    In Turkey, an examination of studies performed in different regions with different groups showed that the proportion of women having a Pap Smear Test had not yet reached the target level. Akyüz et al. (2006) reported that the proportion was 51%, whereas in another it was 12% (Özmen, 2004). Ak et al. (2010) found that the proportion of women having pap smear tests carried out was 19.4%. In the community-based study conducted by Şirin et al. (2006) in İzmir in Turkey, the rate of women having pap-smear testing was determined to be 14.6%. It can be seen that the proportion of pap smear tests carried out in Turkey is very low.

    In several studies carried out in Turkey, the relationship between the sociodemographic variables and awareness level of cervical cancer screening has been examined (Özmen, 2004; Akyüz et al., 2006). Researches show that proportion of women having pap smear test increased with education level, having insurance, motivation to act, the caring nature of the practitioner (Akyüz et al., 2006). In addition to this, researches show the proportion of women

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having pap smear test increased with age. However, studies show a decline in the prevelance of annual cervical cancer screening with respect to age (Akyüz et al., 2006; Welch et al. 2008).

Demographics and social support; inconvenient clinic hours, male providers, and insensitive staff; poor awareness of the indications and benefits of the cervical smear test; lack of knowledge of cervical cancer and its risk factors; fear of embarrassment, pain, or cancer; anxiety caused by receiving an abnormal cervical smear result, poor understanding of cervical screening procedures were among the factors influence a women's decision about cervical cancer screening (Fylan, 1998; Abercrombie, 2001; Ackerson et al., 2008; Cooper, 2011). Seow et al. (1995) demonstrated that women's previous experience of Pap smears also influenced their intention to participate in screening programmes. Harlan et al. (1991) found intrinsic factors the main reason for non-compliance of Pap smear screening. McKiernan et al. (1996) state that intrinsic factors include knowledge, beliefs and attitudes towards both cervical cancer and Pap smears and extrinsic factors include the organization and delivery of the screening service as well as accessibility and acceptability of the service provided. Güvenç et al. (2011) used The Health Belief Model Scale for Cervical Cancer and Pap Smear Test and they concluded that the health beliefs of women affect their decisions to have a Pap smear test (Güvenç et al., 2011).

Researches also show a number of strategies that have been successful in improving follow-up, including telephone counseling, educational programs, and economic incentives (Marcus et al., 1992; Shiu et al., 2010). Additionally, in recent studies it has been also emphasized that strategies intended to improve adherence should be tailored to meet the needs of spesific groups of women. Marcus et al. (1992) determined that transportation incentives were successful in improving adherence among women who were socioeconomically disadvantaged and at higher risk of developing cervical cancer whereas women from more socioeconomically advantaged backgrounds and at lower risk for cervical cancer responded to the combination of the slide/tape program and the personalized follow up.

In programmes to promote cervical screening attendance, it is essential that aspects of the socio-demographic and health beliefs be taken into account to provide appropriate preventive health strategies. In Turkey, adaptation of the Champion Health Belief Model scales for cervical cancer and Pap smear screening showed that this instrument was valid and reliable for Turkish women (Güvenç et al., 2011). In their study Güvenç et al. (2011) emphasized that higher barrier perceptions on the part of women who had not had a Pap smear indicate that appropriate motivators should be in place and barriers should be reduced as much as possible to ensure the highest level of participation in screening programmes. However, no pulished materyal has been found that describes relationship between woman's beliefs in respect of cervical cancer and the Pap smear test using a cervical cacer health belief scale and socio-demographic, gyneco-obstetric characteristics in Turkey and in the world as well.

Understanding the relationship between Turkish womens' health beliefs in respect of cervical cancer and the Pap Smear Test and some characteristics will help health care professionals to develop more effective cervical cancer screening programmes to promoting attendance to cervical cancer screening.

Materials and Methods

Aims

The study aimed to examine the relationship between 'Health Belief Model Scale for Cervical Cancer and the Pap Smear Test' subscale scores and Demographic/Gyneco-Obstetric characteristics.

Method

This cross-sectional study was conducted with women who applied to the Gynaecology Outpatient clinic in a maternity hospital in Ankara, Turkey to receive health care between April 19th and May 18th in 2012. 256 women were included in the study. The inclusion criteria were: Turkish women who (1) are at the age of 21 and older, (2) sexually active in the past and/or now, (3) have not had treatment for preinvasive cervical lesion, (4) have not diagnosed with gynecologic cancer, (5) have not had hysterectomy, (6) is not pregnant, (7) are willing to participate in the study.

The study hospital serves a population at low- to moderate-income and operates as both a community obstetrics service and a high-risk referral center. The outpatient clinic is a busy one. In the study hospital, sample of cells collected by a gynaecology doctor. Nurse prepare women for exams and check vital signs at the outpatient clinic.

Instrument

Data were obtained using the 'Demographic and Gyneco-Obstetric Identification Form' developed by the researchers through extensive review of literature and the 'Health Belief Model Scale for Cervical Cancer and the Pap Smear Test' developed and validated by Güvenç et al. (2011).

Demographic and gyneco-obstetric identification form

Demographic and Gyneco-Obstetric Identification Form based on a review of the current literature. This form consisted of 22 questions. These questions were adapted to determine sociodemographics (age, education, obstetric history and employment status), obstetric and gynaecological characteristics and Pap smear utilization of the women.

Health belief model scale for cervical cancer and the pap smear test

The health belief model scale for cervical cancer and the pap smear test has 35 items in five subscales: benefits of pap smear tests and health motivation, barriers to pap smear test, perceived seriousness of cervical cancer, susceptibility to cervical cancer and health motivation. All the items of subscales have five-point Likert-type response choices: strongly disagree (scores 1 point), disagree

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(scores 2 point), neutral (scores 3 point), agree (scores 4 point) and strongly agree (scores 5 point). Higher scores indicate stronger feelings about that construct. All scales are positively related to screening behaviour except for barriers, which have a negative association. Each of the subscales is evaluated seperately. There is not a total score. It is obtained five subscale scores for each participant.

The reliability and validity of this scale were established by Güvenç et al. (2011). The Champion's Health Belief Model (CHBM) scales were adapted for cervical cancer and the Pap Smear Test. It has also been made the changes necessary to render them valid for the Turkish culture. It was tested with an acceptable level of reliability and validity. Cronbach's α coefficients for the five subscales ranged from 0.62-0.86. Test-retest reliability intra-class coefficients ranged from 0.79-0.88.

The items related to the Benefits of Pap Smear Tests contains eight items that addressed the best way to achieve early diagnosis, decreasing chances of dying from cervical cancer. The items related to the Barriers contains 14 items included items related to concerns about cervical cancer, understanding what is going to happen, knowing how to arrange a Pap Smear Test, rudeness of the personnel, pain, embarrassment, time, cost, fatalism, preference for female health profesionals, distance from the health centre, the presence of other problems that are more pressing, remembering to Schedule a Pap Smear Test and being too old to have the test. The items of the Seriousness Subscale contains seven items related to fear of cervical cancer and beliefs about the consequences of cervical cancer. The items related to the Susceptibility contains three items

related to perceived risk of developing cervical cancer at different times of life. The items related to the Motivation Subscale included three items related to preventive health practices.

Ethical considerations

Authorization for the research was obtained from the General Directorate of the Curative Services of the Turkish Ministry of Health. The study was also approved by the relevant ethics committee, and written informed consent was obtained from each participant.

Data collection and analysis

In this study, a face-to-face structured interview with each women was conducted after gynaecologic examination by the researcher. The time allocated for a woman to complete the questionnaires was approximately 15-20 minutes. All the data were entered and analysed using SPSS version 16.0 for Windows (SPSS Inc., Chicago, IL). Descriptive statistics and Chi-square tests were used to analyse the data. Independent t tests and variance analysis were used to examine the differences between Health Belief Model Scale for Cervical Cancer and the Pap Smear Test subscale scores and Demographic/ Gyneco-Obstetric characteristics. P values<.05 were accepted as statistically significant.

Results

Participant characteristics

According to the Table 1, 42% of the women who applied to the Gynaecology Outpatient clinic were between the age of 21-29, whereas 40% of them were between the age of 30-39 (32.33±8.35). Forty-six point one percent of the women graduated from primary school and 11.7% of the women employed. The percentage of the husbands graduated from university was 11.3. Seventy-four point two percent of the women were on a moderate income, whereas 23.4 % of them were on a low income. Eighty-three point six percent of the women have three or less children (2.11±1.10). The percentage of the women married between the age of 19-24 was 56.6 (19.89±3.21). Mean and standart deviation for age at first birth was 21.46±3.47. The percentage of the women who are not menopausal was 94.1.

Pap smear uptake

According to the findings, the rate of the women who had obtained a Pap Smear Test was 32.4%, whereas the rate of the women who had never obtained a Pap Smear Test was 67.6% (Table 1). Mean and standart deviation for age of women who had a Pap test was 35.31±8.86. Eighty percent of the women had obtained a Pap Smear Test in the previous three years. The percentage of women who have heard about the Pap test was 77.7 whereas 32.4% of the women have had Pap test. It was found that the differences between the scores with regard to the subscales including Seriousness of Cervical Cancer, Susceptibility to Cervical Cancer and Health Motivation according to whether or not she have heard about the Pap test were not statistically significant (p>0.05). Not heard about

Table 1. Participant Characteristics

Characteristics		n (%)
Age (years):	21-29	108 (42.2)
	30-39	103 (40.2)
	40-50	35 (13.7)
	51-62	10 (3.9)
Education level:	Literate	15 (5.9)
	Primary school	118 (46.1)
	Secondary school	51 (19.9)
	High school	50 (19.5)
	University	22 (8.6)
Age at first marriage:	13-18	92 (35.9)
	19-24	145 (56.6)
	25-31	19 (7.4)
Parity:	Nullipar	11 (4.3)
	1-3	221 (83.6)
	4 +	24 (9.4)
Whether she heard about the Pap test:		
	Yes	199 (77.7)
	No	57 (22.3)
Whether she had a Pap test:	Yes	83 (32.4)
	No	173 (67.6)
Reasons for not have had Pap test before (n=173):		
	Has not heard about the Pap test	57 (32.9)
	Not know the reason for having Pap test	45 (26.0)
	Not feel the need	31 (17.9)
	Not complain of symptoms	14 (8.1)
	Embarrassment-hesitation-fear	10 (5.8)
	Time constraints, neglect	9 (5.2)
	Being young	7 (4.1)
Family history of female cancer:	Yes (*)	29 (11.3)
	No	227 (88.7)

*Uterine cancer (31.0 %), breast cancer (51.7%), over cancer (10.4%), cervical cancer (6.9%)

Table 2. The Health Belief Model Scale for Cervical Cancer and the Pap Smear Test Subscale Scores

Subscales	X	S
Benefits of Pap Smear Tests and Health Motivation	28.71	6.57
Barriers to Pap Smear Test	38.29	9.34
Perceived Seriousness of Cervical Cancer	23.70	6.05
Susceptibility to Cervical Cancer	7.78	2.06
Cervical Cancer Health Motivation	8.85	2.77

Table 3. Subscale Scores According to the Participant Characteristics

Subscales	n	X	S	t	p
Benefits of Pap Smear Tests and Health Motivation:					
Employed	30	31.17	7.47	2.19	0.029
Unemployed	226	28.39	6.40		
Barriers to Pap Smear Test:					
Employed	30	32.27	10.55	-3.86	0.000
Unemployed	226	39.09	8.89		
Barriers to Pap Smear Test:					
Family history of female cancer					
Yes	29	34.76	9.84	-0.74	0.030
No	227	38.74	9.20		
Benefits of Pap Smear Tests and Health Motivation:					
Whether she heard about the Pap test					
Yes	199	30.03	6.73	6.43	0.000
No	57	24.12	3.03		
Barriers to Pap Smear Test					
Whether she heard about the Pap test					
Yes	199	37.37	10.33	-2.99	0.003
No	57	41.51	2.46		
Benefits of Pap Smear Tests and Health Motivation:					
Whether she had a Pap test					
Yes	83	30.87	7.01	3.71	0.000
No	173	27.68	6.11		
Barriers to Pap Smear Test					
Whether she had a Pap test					
Yes	83	34.02	10.88	-5.33	0.000
No	173	40.34	7.73		
Barriers to Pap Smear Test:					
Menopausal status					
No	241	37.74	9.01	-3.91	0.000
Yes	15	47.20	10.37		
Perceived Seriousness					
Menopausal status					
No	241	23.48	6.10	-2.32	0.021
Yes	15	27.20	4.02		
Cervical Cancer Health Motivation					
Menopausal status					
No	241	8.95	2.71	2.20	0.028
Yes	15	7.33	3.44		

*t test was used

Table 4. Subscale Scores According to the Participant Characteristics

Subscales	n	X	S	F	p
Barriers to Pap Smear Test:					
Age					
21-29	108	37.56	9.07	4.00	0.008
30-39	103	38.59	8.12		
40-50	35	37.00	11.75		
51-62	10	37.56	9.07		
Perceived Seriousness					
21-29	108	22.86	5.76	3.18	0.024
30-39	103	24.55	5.68		
40-50	35	22.66	7.66		
51-62	10	22.86	5.76		
Barriers to Pap Smear Test:					
Educational level					
Literate	15	43.53	5.00	10.65	0.000
Primary school	118	41.01	9.34		
Secondary school	51	37.57	7.62		
High school	50	34.04	8.39		
University	22	31.50	9.98		
Barriers to Pap Smear Test:					
Husband's educational level					
Primary school	92	40.63	9.29	7.54	0.000
Secondary school	71	39.54	8.90		
High school	64	36.09	9.19		
University	29	32.69	7.75		
Benefits of Pap Smear Tests and Health Motivation:					
Husband's educational level					
Primary school	92	28.23	6.61	5.28	0.002
Secondary school	71	28.00	5.88		
High school	64	28.19	7.38		
University	29	33.17	4.40		
Barriers to Pap Smear Test:					
Age at first marriage					
13-18	92	40.15	8.99	3.99	0.020
19-24	145	37.63	8.78		
25-31	19	34.32	13.12		
Barriers to Pap Smear Test					
Parity					
Nullipara	11	35.09	10.95	8.00	0.000
1-3	221	37.71	8.97		
4 +	24	45.17	9.38		
Perceived Seriousness:					
Parity					
Nullipara	11	23.18	6.57	4.92	0.008
1-3	221	23.33	5.94		
4 +	24	27.33	5.87		
Barriers to Pap Smear Test:					
Reasons for not have had Paptest					
Has not heard about the Paptest	57	41.51	2.46	7.65	0.000
Not feel the need	31	35.45	8.92		
Not complain of symptoms	14	35.93	8.29		
Not know the reason for Paptest	45	44.67	8.23		
Time constraints, neglect	9	38.89	7.96		
Being young	7	34.14	4.78		
Embarrassment-hesitation-fear	10	41.20	9.51		

*variance analysis was used

the Pap test (32.9%), not know the reason for having Pap test (26%), not feel the need (17.9%), not complain of symptoms (8.1%), time constraints, neglect (5.2%), being young (4.1%) and embarrassment-hesitation-fear (5.8%) were among the reasons for not having had Pap test. Although not shown in the table, women stated that diagnosing cervical cancer (26.2%), diagnosing female genital cancer (16.4%), and diagnosing gynecological problems (11.7%) were among the reasons for having Pap test. Forty-five point seven percent of the women stated that they have not known the reason for having Pap test. Only 2.3% of the women who have had Pap test stated that they have had Pap test for cervical cancer screening. Forty-four point seven percent of the women who have heard about Pap smear test graduated from primary school (p<0.05). Similarly, 47% of the women who have had Pap smear test graduated from primary school, whereas only 8.4% percent of them graduated from university (p<0.05). Fifty percent of the working women had Pap test in the last six months (p<0.05).

Relationships between socio-demographic, gyneco-obstetric characteristics and 'Health Belief Model Scale for Cervical Cancer and the Pap Smear Test' subscale

scores

Maximum scores for each of the subscales and mean subscale scores of participants can be presented as follow: Benefits of Pap Smear Tests and Health Motivation 40 (28.71±6.57); Barriers to Pap Smear Test 70 (38.29±9.34); Perceived Seriousness of Cervical Cancer 35 (23.70±6.05); Susceptibility to Cervical Cancer 15 (7.78±2.06); Cervical Cancer Health Motivation 15 (8.85±2.77) (Table 2).

According to the Table 3, employed women had statistically significantly fewer perceived barriers than unemployed women (p<0.05). Additionally, employed women had higher Benefits of Pap Smear Tests and Health Motivation score than unemployed women (p<0.05). Women who graduated from university had statistically significantly fewer perceived barriers than the other women (p<0.05) (Table 4). It was found that the differences between the scores with regard to the subscales including Benefits of Pap Smear Tests and Health Motivation, Perceived Seriousness of Cervical Cancer, Susceptibility to Cervical Cancer and Health Motivation according to womens' educational level were not statistically significant (p>0.05). According to the Table 3, women with family history of female cancer had statistically significantly fewer perceived barriers than those not having family history of female cancer (p<0.05). However, it was found that the differences between the scores with regard to the subscales including Benefits of Pap Smear Tests and Health Motivation, Perceived Seriousness of Cervical Cancer, Susceptibility to Cervical Cancer and Health Motivation according to family history of female cancer were not statistically significant (p>0.05). Women who have heard about Pap test had statistically significantly fewer perceived barriers than those who have not heard about it (p<0.05). Additionally, women who have heard about Pap test had higher Benefits of Pap Smear Tests and Health Motivation score than those who have not heard about it (p<0.05). Women who had obtained a Pap Smear Test had statistically significantly fewer perceived barriers than those who had never had a Pap Smear Test (p<0.05). Additionally, women who had obtained a Pap Smear Test had statistically significantly higher Benefits of Pap Smear Tests and Health Motivation score than those who had never had a Pap Smear Test (p<0.05) (Table 3). Women who are in menopausal status had higher Perceived Seriousness of Cervical Cancer than women who are not in menopausal status (p<0.05) (Table 3).

Women who have a husband graduated from university had statistically significantly fewer perceived barriers than those who have husband with less education (p<0.05). Additionally, women who have a husband graduated from university had higher Benefits of Pap Smear Tests and Health Motivation and Cervical Cancer Health Motivation scores than those who have husband with less education (p<0.05). It was found that the differences between subscales scores including Perceived Seriousness of Cervical Cancer and Susceptibility to Cervical Cancer according to husbands' educational level were not statistically significant (p>0.05) (Table 4).

According to the Table 4, women between the age of 30-39 had higher perceived barriers and Perceived

Seriousness of Cervical Cancer scores than those at the other ages (p<0.05). Although not shown in the table, it was determined that the percentage of the women who had obtained a Pap Smear Test between the age of 30-39 had higher than those at the other ages (p<0.05). Women between the age of 13-18 at first marriage had higher perceived barriers score than those married at other ages (p<0.05). Women who gave birth four times and above had higher perceived barriers and Perceived Seriousness of Cervical Cancer scores than those who gave birth less (p<0.05) (Table 4). It was found that the differences between subscales scores including Benefits of Pap Smear Tests and Health Motivation, Susceptibility to Cervical Cancer and Health Motivation according to parity were not statistically significant (p>0.05) (Table 4).

Although not shown in the table, women who have not known the reason for Pap test had fewer Benefits of Pap Smear Tests and Health Motivation score than those who have known the reason (p<0.05). Additionally, women who have not known the reason for Pap test had higher perceived barriers than those who have known the reason (p<0.05). Women who stated that the last Pap test she obtained for cervical cancer screen had fewer perceived barriers than those stated the other reasons (p<0.05).

Discussion

The study findings show that the total rate of women who had a pap test is low, despite 80% of the women had obtained a Pap Smear Test in the previous three years in result of the efforts of the Cancer Research Department of the Turkish Health Ministry to implement of the national cervical cancer screening standards in all hospitals since 2009 (Ministry of Health, Turkey, 2009). The present study also show that despite three out of four women have heard about Pap test, the low rate of obtaining the test is remarkable. It is obvious that different strategies are needed for behavioural change and motivation to act. Gollwitzer and Sheeran (2006) suggest that motivation is the starting point for behavioral performance. It is suggested that behavior is most likely when the individual is both motivated to act and has developed strategies and plans which promote behavioral enactment. Twinn and Cheng (2000) examined women's experiences of having a Pap smear and their perceptions of the influence of the practitioner on their experience. The caring nature of the practitioner such as understanding women's feelings, the sensitivity of the practitioner and taking time to talk to women were highlighted as a strategy in overcoming women's fear and embarrassment about the procedure as well as minimizing their pain and discomfort.

In the present study, the women who have heard about Pap test had fewer perceived barriers and higher Benefits of Pap Smear Tests and Health Motivation score. However, subscales scores including Perceived Seriousness of Cervical Cancer, Susceptibility to Cervical Cancer and Health Motivation were not different according to whether or not women have heard about the Pap test. This finding demonstrated that women do not pay attention to cervical cancer. It also demonstrates that susceptibility to cervical cancer and health motivation is quite low. Lee

et al. (2002) identified that a large proportion of women who do not have regular smears have a low perceived susceptibility. According to the Issah et al. (2011) finding, South African women do not express all their symptoms when consulting with health care professionals initially. They concluded that nurses should use every opportunity to screen women for cervical cancer as the woman might not be able to express her cervical cancer-related signs and symptoms. In a study conducted by Holroyd et al. (2004), it was determined that Chinese women exhibit a sense of fatalism and they have misconceptions about aetiology and treatment outcomes of cervical cancer. Additionally, Chinese women are unlikely to participate in screening tests as they believe that there is very little they can do to change their fate. Lack of correct and current knowledge has been shown to limit choice of health seeking behaviour (Holroyd et al., 2004).

According to the findings, not heard about the Pap test, not know the reason for having Pap test, not feel the need, not complain of symptoms, time constraints, neglect, being young and embarrassment-hesitation-fear were among the reasons for not having had Pap test. Fylan (1998) in a review emphasized that many women are frightened of medical procedures, believe that the abnormal smear is indicative of cancer and many believe the purpose of the smear test to be the detection of existing cervical cancer. She also emphasized that methods of reducing anxiety in women receiving abnormal smear results must be considered to increase attendance.

In the study, the rate of the women who have not known the reason for having Pap test is rather high. Maree and Wright's study (2011) in South Africa provides evidence that presenting information on cervical cancer in a non-stigmatizing manner based on the theme of self protection promotes cervical screening. Twin (2006) found out that women's feelings of uncertainty in receiving an abnormal smear result was mostly related to fear of cancer. It was also emphasized that women define the screening procedure as a diagnostic process for cancer rather than a preventive strategy. It is also noteworthy that women, in this study, did not mention about Pap test as a health promotion strategy. Implementation of educational programmes by nurses in the busy environment in which doctors are so busy to diagnose women could result in a major clinical change based in the findings of this study. Nurses could provide information to increase motivation to obtain Pap smear test, Susceptibility to Cervical Cancer, Perceived Seriousness of Cervical Cancer and the knowledge about the importance of Pap Smear Test as a health promotion strategy for all women who will have gynaecological examination. Education can be provided by the nurses in the gynaecology out patient clinic in the form of group training before gynaecological examinations started. Increasing knowledge about benefits of Pap Smear Tests, increasing motivation to obtain Pap Smear Test, increasing Perceived Seriousness of Cervical Cancer, and increasing Susceptibility to Cervical Cancer could promote attendance to cervical cancer screening.

Findings of this study demonstrated that women who graduated from university had fewer perceived barriers than the other women. Similarly Akyüz et al.

(2006), determined that the proportion of women having pap smear tests carried out increased with age and education level and according to whether the women had social security. However, in this study, subscales scores including Benefits of Pap Smear Tests and Health Motivation, Perceived Seriousness of Cervical Cancer, Susceptibility to Cervical Cancer and Health Motivation according to womens' educational level were not different. Interestingly, women who graduated from primary school have heard about Pap test most. Moreover, women who graduated from primary school have had Pap test most. This findings could be explain by the implementation of the national cervical cancer screening standards in all hospitals through the oportunistic Pap smear screening (Ministry of Health, Turkey, 2009). The findings can also explain by the fact that the study hospital serves women mostly at low socioeconomic and educational level. Damiani et al. (2012) determined that among women who attended screening, those with lower levels of education and lower occupational classes were more likely than more advantaged women to attend organized screening programs rather than being screened on the basis of their own initiative. Perry (2001) emphasized that younger women are more likely to seek contraceptive advice from either general practitioner or the practice nurse, and this should be used as an opportunity to promote smear testing and offer opportunistic screening, if appropriate.

The present study identified that women with family history of female cancer had fewer perceived barriers than those not having family history of female cancer. However, subscales scores including Benefits of Pap Smear Tests and Health Motivation, Perceived Seriousness of Cervical Cancer, Susceptibility to Cervical Cancer and Health Motivation were not different according to family history of female cancer. Similarly, Larsen and Olesen (1998) investigated women's barriers to cervical screening despite organized cervical screening program in Denmark. They identified no difference between non-atenders and attenders with respect to having close relatives who had cancer.

In the current study, women who had obtained a Pap Smear Test had fewer perceived barriers and higher Benefits of Pap Smear Tests and Health Motivation score than those who had never obtained a Pap Smear Test. Research results show that ever atending for cervical screening during the previous three years were significantly associated with womens' motivation to receive future screening (Gu et al., 2012). However, in the present study, subscales scores including Perceived Seriousness of Cervical Cancer, Susceptibility to Cervical Cancer and Health Motivation were not different according to whether or not she had obtained Pap test. Gu et al. (2012) emphasized the important role of Chinese women's beliefs in the value of cervical screening.

Women who have a husband graduated from university had fewer perceived barriers and higher Benefits of Pap Smear Tests and Health Motivation and Cervical Cancer Health Motivation scores than those who have husband with less education. According to a study (2002) conducted in Singapore, those in the regular group were more likely to specifically attend for screening or general

health checkup, whereas approximately a quarter of those in the irregular group reported that the postnatal visit was the last time they had had a smear taken (Lee et al., 2002). These study findings demonstrate the importance of the postpartum period as the most important window of opportunity to educate women and their partners about Pap smears, especially in Turkey where for the majority of women, childbearing is the first point of contact with regard to women's health care.

In the present study it was identified that women between the age of 30-39 had higher perceived barriers and Perceived Seriousness of Cervical Cancer scores than those at the other ages. It was also determined that the percentage of the women who had obtained a Pap Smear Test between the age of 30-39 had higher than those at the other ages. This findings demonstrated that increased Perceived Seriousness of Cervical Cancer could contribute to increase Pap smear uptake even though existing barriers. Shiu et al. (2010) emphasized the importance of tailor-making individualised health messages according to each woman's life context. Welch et al. (2008)'s study indicated a decline in the prevalence of annual cervical cancer screening with respect to age.

The findings demonstrated that women between the age of 13-18 at first marriage had higher perceived barriers score than those married at other ages. However, subscales scores including Benefits of Pap Smear Tests and Health Motivation, Perceived Seriousness of Cervical Cancer, Susceptibility to Cervical Cancer and Health Motivation according to womens' age at first marriage were not different. In Turkish culture there is an attitude which restricts sexual relations before marriage and with other partners after marriage. In some regions, it is thought that the risk may be raised by the practice of girls marrying under the age of eighteen. This does not apply to the whole of Turkey, but is more widespread in the rural areas.

The study findings identified that women who gave birth four times and above had higher perceived barriers and Perceived Seriousness of Cervical Cancer scores than those who gave birth less. Subscales scores including Benefits of Pap Smear Tests and Health Motivation, Susceptibility to Cervical Cancer and Health Motivation according to parity were not different. Park et al. (2005) examined the effects of a program focused on cognition-emotion as a useful strategy to increase participation in Pap screening by Korean women. The program made a difference in the intention to have the test and in the stage of adoption of action for Pap screening. The core contents of the program reflected the results of a previous qualitative study conducted through focus groups to explore cognitive and affective attributes that women experience related to Pap tests.

In the current study, it was identified that women who have not known the reason for Pap test had fewer Benefits of Pap Smear Tests and Health Motivation score and higher perceived barriers than those who have known the reason. However, subscales scores including Perceived Seriousness of Cervical Cancer, Susceptibility to Cervical Cancer and Health Motivation according to whether or not have known the reason for Pap test. Duran (2011) identified that Turkish women generally knew nothing about the pap smear test as an early diagnosis method. Additionally, the women did not have a fear of cervical cancer and did not think they were at risk. They displayed the attitude that if they had the information they would show positive health behavior. It was emphasized in the study that education programmes should be conducted face-to-face by health workers and not through the media as education programmes conducted on a one-to-one basis would be more effective (Duran, 2011). Women who stated that the last Pap test they obtained aimed for cervical cancer screening had fewer perceived barriers than those stated the other reasons. However, subscales scores including Benefits of Pap Smear Tests and Health Motivation, Perceived Seriousness of Cervical Cancer, Susceptibility to Cervical Cancer and Health Motivation were not different according to whether or not they stated the last Pap test aimed for cervical cancer screening. Perry (2001) emphasized that many women have a poor understanding of the reason for preventive screening, and non-attendance is often the result of fear of the procedure or of the results.

In conclusion, the study examined the relationship between 'Health Belief Model Scale for Cervical Cancer and the Pap Smear Test' subscale scores and Demographic/ Gyneco-Obstetric characteristics. It was identified that scores with regard to the subscales including Benefits of Pap Smear Tests and Health Motivation, Perceived Seriousness of Cervical Cancer, Susceptibility to Cervical Cancer and Health Motivation were not different according to some Demographic/Gyneco-Obstetric characteristics. These subscales scores were not different according to womens' educational level, whether or not women to be at younger age at first marriage, whether or not women have family history of female cancer, whether or not women heard about the Pap test, whether or not women had a Pap test, whether or not women know the reason for having Pap test, whether or not women know the reason for the last Pap test they obtained. In the present study, most of the women have not heard about Pap test.

In Turkey context, implementation of the national cervical cancer screening standards in hospitals without additional strategies could make only minimal contribution to increase Pap smear screening uptake. It is needed different strategies for behavioural change, motivation to act and promote cervical screening at regular intervals. Education programmes aiming to increase Perceived Seriousness of Cervical Cancer, Susceptibility to Cervical Cancer, motivation to obtain Pap smear test, and knowledge about Benefits of Pap Smear Tests should be conducted to promote attendance to cervical cancer screening. Implementation of educational programmes by nurses in a busy environment could result in a major clinical change, based in the findings of this study.

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