

**ORIGINAL PAPER****Perceptions of Barriers and Facilitators of Cervical Cancer Early Detection Behaviors among Elderly Women****Aygül Kıssal**

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**Abstract**

**Background:** Elderly women have lower levels of Papanicolaou (Pap) testing than other population subgroups and thus, they were the groups of top priority.

**Objective:** The aim of this study was to determine the barriers and facilitators of elderly women as regards to the cervical cancer early detection behaviors.

**Method:** Qualitative research method was used. Data of 21 elderly women that were collected via in-depth individual interviews were assessed by the content analysis based on Champion's Health Belief Model and Pender's Health Promotion Model.

**Results:** Sensitivity areas perceived in the participation of elderly women to the cervical cancer early detection behaviors were determined as "possibility of having cancer and presence of symptoms" and related barriers were determined as "lack of knowledge, embarrassment/privacy, previous health service experience, fear, elderliness" while health motivation was found as "wish of detecting the health problem early and being healthy" and perceived facilitators were found as "encouragement and information by the health personnel, interactions between people".

**Conclusion:** In compliance with both models, results demonstrate that perceived barriers constitute an important variable in the cervical cancer early detection behaviors. These results may provide a useful framework to the health professionals in preparing training and consultancy services aimed at increasing the early detection behaviors of elderly women and planning the health services.

**Keywords:** uterine cervical neoplasms; early detection of cancer; culture.

**Introduction**

Ranking second among the cancer types most frequently seen in women, cervical cancer is particularly observed in developing countries and constitutes 12 % of all cancer cases seen among women (World Health Organization [WHO] 2002). According to the data of Turkey Health Statistics [THI] (2006), the prevalence rate of cervical cancer is 1.25 per one hundred thousand. Invasive cervical cancer rates have decreased in recent years but it was reported that the rates of pap smear screening were low among the poor, minorities and the elderly and thus, they were the groups of top priority to be

addressed in the early detection studies (Van Til et al., 2003; Curbow et al., 2004).

Fear of being diagnosed with cervical cancer, negligence, embarrassment, lack of knowledge regarding cancer and early detection, health perception of the individual, lack of health insurance, previous negative experiences with health professionals and sex of the health professional, difficulties in accessing to the health institution, problems related to making appointment and waiting in queue and culture are included among barriers that cause a decrease in cervical cancer early detection behavior rates of elderly women (Van Til et al., 2003; Lee et al., 2007; Wong et al., 2009).

However, no study was found in Turkey on the cervical cancer early detection behaviors among the elderly women. Health professionals who have an indispensable role in the community education and the public health nurses, in particular, are responsible for reducing the cervical cancer mortality, improving the quality of life and extending the human life. It was reported in the studies conducted so far that cervical cancer screening rates of women could be increased through appropriate trainings once the barriers were determined (Curbow et al., 2004; Lee et al., 2007). This study was carried out in order to examine the barriers and facilitators of women aged 60-75 regarding the cervical cancer early detection behaviors within the theoretical structure of Health Belief Model (HBM) and Health Promotion Model (HPM). This research focused on the following questions:

#### **Main Research Question**

What are the reasons of elderly women not to take Pap smear test at a sufficient level?

#### **Other Research Questions**

- What are the barriers perceived by elderly women in practicing the cervical cancer early detection behaviors?
- What are the facilitators perceived by elderly women in practicing the cervical cancer early detection behaviors?

#### **Methods**

This qualitative study was conducted in Balçova, İzmir so as to examine the barriers and facilitators perceived by the elderly women aged between 60 and 75 years as regards to cervical cancer early detection behaviors within the theoretical structure of HBM and HPM.

#### **Health Belief Model**

Health Belief Model was developed by Hochbaum and Rosenstock in early 1950s in order to put forward the insufficiency of participation in the screening programs available for prevention and early detection of diseases (Champion & Skinner, 2008). The most basic components of the model were susceptibility, severity, benefit, barrier, self-effectiveness perception and health motivation perception. Key concepts of HBM implicate that the relevant health behaviors are displayed only on

conditions that the individuals perceive disease as a susceptibility for them, they believe in the results related to the severity of the disease, they are aware of both benefits and barriers of the screenings and there are positive stimulants (training, media, warnings reminding the health control, disease of a friend or a relative, information from other people) to motive them to undergo screening (Pender et al., 2006; Champion & Skinner, 2008).

#### **Health Promotion Model**

In HPM which Pender developed in 1980 and revised in 1987 and 1996, variables expressed as "Individual Characteristics and Experiences" are "relationship with previous behaviors" and "personal factors". As for cognitive factors related to the behavior in HPM, they are "perceived benefit and barrier", "self-effectiveness perception", "effect associated with the activity", "interactions between people" and "situational factors". These factors are the main motivational mechanisms enabling the individuals to acquire and maintain health promotion behaviors. The model also includes the concepts of "adherence to the action plan" and "meeting the urgent requests and preferences" (Pender et al., 2006).

#### **Research Ethics**

Permissions were taken from the Municipality of Balçova and the Ethics Committee of School of Nursing of Dokuz Eylül University. Verbal approvals of the elderly women meeting the inclusion criteria were taken prior to the interviews after they were informed about the objective and duration of the research, confidentiality of the research data and they were assured that they could quit the research whenever they want.

#### **Sample Recruitment and Procedure**

A qualitative and purposive sample composed of 21 Turkish women aged between 60-75 years was formed for individual and in-depth interviews. The purposive sample formed using the maximum variation sampling strategy was used to put forward the known variables associated with the rates of cervical cancer screening such as training, socioeconomic status and marital status. Interviews were carried out in the houses of the individuals after their addresses were received from prefecture and

district administrations of Balçova and offices of family doctors. Verbal approvals of the participants were taken and recorded by a tape recorder and objective of the study was explained once more to the participants prior to the interviews. Twenty-one old women were included in this research and the interviews lasted for approximately 40 minutes. An appropriate setting was provided to ensure that the interviews were not interrupted and members continued the interviews properly.

**Interview Guidelines:** An interview form composed of open ended questions consistent with the semi-structured interview technique that complies with the objective of the study according to HBM and HPM was used. Interview questions included open-ended questions aimed at revealing the knowledge levels, barriers and facilitators in order to determine the factors influencing the participation of the elderly women in cervical cancer screenings by allowing them to make explanations and express themselves in detail. Interview form started with a socio-demographic question. In the question form developed in compliance with the objective of the research according to HBM and HPM, questions related to the knowledge levels were “what do you know about the cervical cancer?” and “what can cause a woman to develop cervical cancer?” while the question concerning Pap smear and cervical cancer awareness was “what are the methods that you know for detection of cervical cancer at an early phase?”. The question “What do you think about the reasons of women not to take Pap smear test?” was directed to the participants to understand the barriers and facilitators related to the screening, the question “how do you perceive your risk of developing cervical cancer?” was directed to them to analyze the personal risk perception and susceptibility perception regarding cervical cancer and the question “what do you think about the severity degree of the consequences of cervical cancer?” was directed as regards to the severity perception.

Two experts of qualitative research were consulted for their opinions before the interview form was applied to the old individuals. Recorder and notes of the interviewer were used to record the dialogues during interviews. When no new information was reached on a specific

topic, this point was considered as the upper limit and interviews were finalized at that point (data saturation). Transcription of individual in-depth interviews was performed by the first author.

**Inclusion Criteria:** (1) being aged between 60-75, (2) speaking Turkish, (3) not being visually impaired/hearing impaired, (4) being independent in terms of daily life activities, (5) not being diagnosed with dementia, Alzheimer’s disease and cervical cancer, (6) not having a previous experience of hysterectomy operation.

### Data Analysis

Individual and in-depth interviews were transcribed audiotapes verbatim by the main researcher then checked the transcriptions against the audiotapes for accuracy. Final version of the transcripts was read for several times before the analysis, in order to enable the researchers to understand its content and draw an analysis plan. Analysis followed the guidelines by Polit and Beck, 2004. Main researcher analyzed the content of the transcripts, trying to code and fit emerged themes on factors influencing compliance within the constructs of HBM and HPM. For content analysis of the transcribed responses from the individual and in-depth interviews, we defined text units and we coded the text units into categories describing the barriers and facilitators to cervical cancer screening and detection practices, with the constructs of the HBM and HPM as a guide. Once we completed the database, coding of transcripts was done line by line to identify categories and themes. We verified the accuracy of the coding scheme (conceptual categories, their definitions, and the observations coded within each category). We grouped the categories by consistent themes (Polit & Beck, 2004).

### Results

#### Sample Description

Age average of the women participating in the research was  $66.38 \pm 5.13$ . Forty two point nine percent (42.9%) of 21 elderly women took the Pap smear test at least once (Table 1). A majority of the participants stated that they had taken the Pap smear test only once or twice throughout their lives while only two participants reported that they took it at regular intervals. Perceived barriers and facilitators of

the participants regarding the cervical cancer early detection behaviors were assessed within the scope of HBM and HPM concepts in the data

analysis. Figure 1 displays the main categories and subthemes of in-depth individual interview results.

**Table 1 Characteristics of the Elderly (n: 21)**

<b>Variables</b>		
<b>Age (years)</b>	$\bar{X} \pm SD$	
	66.38 ± 5.13	
<b>Number of children</b>	3.09 ± 1.84	
<b>Child(ren)</b>	<b>N</b>	<b>%</b>
Yes	20	95.2
No	1	4.8
<b>Marital Status</b>		
Married	11	52.4
Single	10	47.6
<b>Education status</b>		
Illiterate	3	14.3
Literate	3	14.3
Primary school	9	42.8
High school and above	6	28.6
<b>People With Whom the Participants Lived</b>		
Spouse		
Spouse and children	10	47.6
Children (son and/or daughter)	1	4.8
Alone	2	9.5
	8	38.1
<b>Income</b>		
Less income than expenses	14	66.6
Income and expenses are equal or income is higher	7	33.4
<b>Those who have never had the smear test</b>	12	57.1

**Perceived Sensitivity in Cervical Cancer**

**Possibility of having Cancer**

Nine participants who did not take the Pap smear test had not thought themselves under risk in terms of cervical cancer. “I don’t suppose. As all the activities have continued healthily in this part of my body so far, I do not suppose that I will have cervical cancer after this time” (EEB, 74 age, married, not Pap smear).

**Presence of Symptoms**

Twelve participants who did not take the cervical cancer screening and all the women who previously underwent screenings but did not undergo them regularly think that Pap

smear test is taken and maintained only when symptoms are present and this is associated with the Turkish culture.

“I don’t feel discomfort. If I feel any discomfort, if I have a complaint about my uterine or a gynaecological disease, I will immediately apply to a doctor. We, Turkish people, think that we should go only when we feel discomfort”. (NU, 62 age, married, irregular Pap smear).

**Perceived Severity in Cervical Cancer**

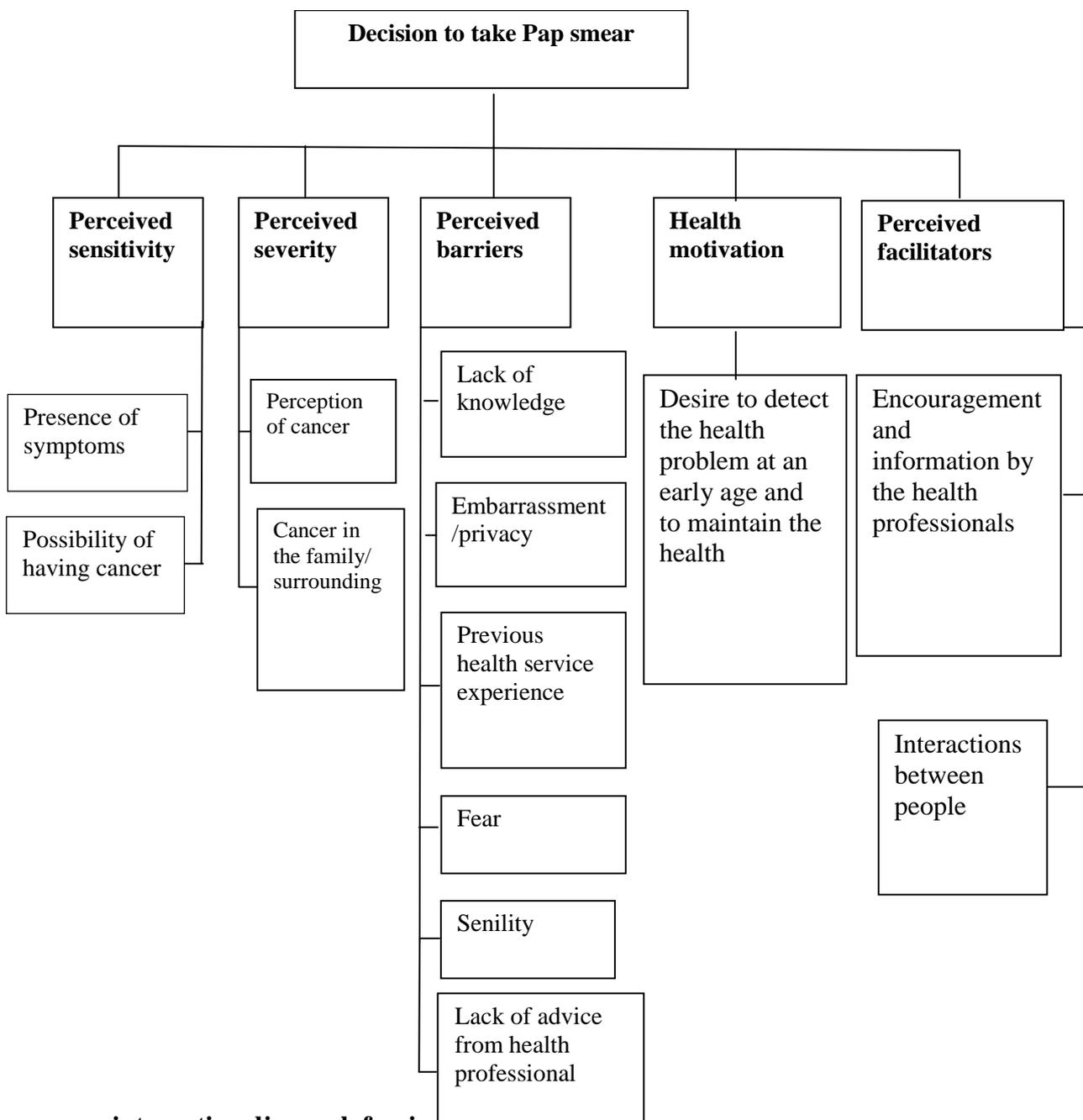
**Perception of Cancer**

Fifteen elderly women who participated in screenings perceive the cervical cancer as a

malign disease which can cause lifestyle changes and is difficult to treat even it is diagnosed at an early stage. “Well, a bad disease comes to my mind even when I pronounce it ‘cancer’. It is a frightening

disease. I suppose that it will make the life hard. I will certainly affect the life. It is also affect the death.” (E1, 72 age, married, not Pap smear).

**Figure 1. Perceptions of Barriers and Facilitators of Cervical Cancer Early Detection Behaviors among Elderly Women according to HBM and HPM**



### *Having Cancer Cases in the Family/Surrounding*

It was observed that some women did not take the screenings even though they had cancer cases in their families and around them. However, some women participated in the screenings even though they did not observe any cervical cancer cases around them and in their families. It was determined that perceptions regarding the negativities that the cancer would bring to their lives were much more in the latter group.

### **Perceived Barriers in Cervical Cancer**

#### *Lack of Knowledge*

Information requirements of the elderly women participating in this research regarding symptoms/indications, risk factors, diagnosis/treatment and screening of the cervical cancer constituted one of the most frequently discussed barriers. When women were asked about the cervical cancer, 17 women reported that they had heard about it but did not have any information regarding it. General perception of the participants related to the cancer screening was positive. However, they were not aware of the relationship between early detection of the cervical cancer and lifesaving, how to protect themselves from the cervical cancer and the importance of Pap smear test in early detection. Elderly women could not comprehend the importance of Pap smear test in early detection which can save their lives and they had limited information about the test. Three participants expressed that they did not hear about the cervical cancer. When they were asked about their frequencies of screening, only several of them could give a correct answer and 17 women stated that they did not know it. "I am not sure. It may have an age limit. People under a certain age should take the screenings once every six months. After a certain age, people may have to take them once every year or every two years, I don't know." (MB, 64 age, married, irregular Pap smear).

### *Symptoms of Cervical Cancer*

Only a few participants could list the symptoms and indications (bleeding, pain, bad smell etc.) of cervical cancer correctly. Almost all of the people who answered the question stated that they did not know the symptoms and indications. "I suppose that a discharge, bleeding or something similar occurs. I don't know whether pain is felt. Well, I don't have much information." (SA, 60 age, single, irregular Pap smear).

### *Risk factors of Cervical Cancer*

High parity and positive family history are included among several risk factors that participants could specify correctly. Seven elderly women were thinking that inadequate hygiene was a risk factor for cervical cancer. None of the participants addressed sexual intercourse at an early age, several sexual partners, smoking, use of long time oral contraceptive as risk factors. Almost all women stated that they did not have knowledge about this issue (those speaking on this matter were not sure about their knowledges). "I will also blame husbands. Women may not pay attention to their hygiene. Well, if there is not a genetic factor, I don't know anything else." (RG, 75 age, single, irregular Pap smear). Some of the participants emphasized the importance of genetic history. However, almost none of the participants was aware of the importance of HIV infection and knew its relationship with cervical cancer. Only two participants pointed out to the protection provided by a vaccination made at an early age.

Sources of information of the participants were mainly television, friends and immediate relatives. Almost nobody said that they received information from health professionals (doctor, nurse etc.).

### *Embarrassment/Privacy*

Elderly women participating in this research frequently reported as a barrier that they felt embarrassment and other similar emotions culturally as regards to the cervical cancer

screening. Some participants emphasized that embarrassment is felt due to the fact that female body is accepted as confidential as a result of cultural structure and religious beliefs of the Turkish society and thus, they did not participate in the screenings or were reluctant to participate in them. Some women stated that they did not talk these issues even with their friends. Three elderly women stated that male health professionals prevented them from taking the test while more than half of the participants expressed that sex of the health professional was not of importance even though they felt embarrassment. "I never have a male doctor to look at my uterine. I feel embarrassed if he makes uterine examination. Well, we never talk such issues. It never comes into question. I feel even more embarrassed." (NE, 72 age, single, not Pap smear). "In the past, it was more difficult. Nobody would go to a male gynaecologist but in my opinion, being a doctor is not related to sexes. It is not important whether the doctor is male or female. Sexuality is out of question. However, the majority does not think so. Doctor must be female. I can realise easily now. Especially young ladies apply to male doctors without discomfort. Actually, there is not problem even in terms of our religion. Even strictly Muslim women do not refrain from such a situation." (EEB, 74 age, married, not Pap smear).

#### ***Previous Health Service Experience***

Eight elderly women implicated that their previous experiences regarding the approaches of the health professionals towards them might prevent them from participating in the screenings. Elderly women emphasized that effective patient-doctor/health professional communication might affect participation in the screenings. Participants frequently expressed long waiting hours resulting from crowdedness of clinics as negative experiences. Most of the participants did not take the Pap smear test once more due to their previous negative experiences even though they thought that

the test was an easy process. "In some centers, what can be the right expression, you can be mistreated. These make you feel upset. Then, you don't want to go there once more. However, if you have been treated kindly and in a friendly manner, you want to go there again. You feel confidence in those people and do not refrain from applying to them again. If they talk to you reprimandingly or talk such "madam, please sit here. They make you wait after this. They forget you. You wait, wait and wait...In other cases, they sometimes come and say "I am sorry to make you wait but just a little more patience and it will be over". You do not realise the time that goes on". (GS, 72 age, married, irregular Pap smear). "I am not satisfied with the hospital. Queues are too long. You have to wait. It is very crowded. Doctors are not as caring as doctors working in the health centers. Honestly, I want to complain about them. It was, I guess, five years ago when I quarrelled with doctors. I quarrelled and then I quitte." (MB, 64 age, married, irregular Pap smear).

#### ***Fear***

Some of the elderly individuals addressed the concept of fear as reason of not participating in the early detection behavior. Women frequently mentioned the fear of being diagnosed with cancer, acquiring an infection and having cancer if they think about it. "I have fear of doctor. It is difficult to learn facts for most people. If doctor diagnoses something, they think that they will be miserable. You know with comfort when you do not know. When disease is learned, a psychological breakdown occurs."(EE, 63 age, single, irregular Pap smear). "I neither watch nor listen them in television programs. I imagine the worst with fear of experiencing a similar situation, having a disease in the uterine or something. If I go to a hospital and doctor has a slight suspicion, I can, god forbid, make myself acquire that disease due to my anxiety." (GY, 66 age, single, not Pap smear).

***Senility***

Elderly women generally had a thought that mainly younger and sexually active women should take the Pap smear test. Almost half of the participants were believing that they did not have to take the cervical cancer screenings as they were old. "Oh, forget about it, young ladies should go. How much time I have left? I don't want them to become ill. It is said in our culture that once it is 60-70 years, it is over. I have no relative or family member living such a long life. We have short lives. I know that death waits for us after 5-6 years. It is inevitable." (NT, 67 age, single, irregular Pap smear).

***Lack of Advice from Health Professional***

Only two participants stated that they took the test owing to the advice of a doctor. Other participants did not talk about a medical advice affecting their decision to take the Pap smear test. "They told me that you did not have anything, all results were negative and thus, I did not do anything in the last three years." (PD, 66 age, single, irregular Pap smear).

***Health Motivation***

Seven of the women that were included in the study and took the screening tests previously were voluntary to detect the health problem at an early stage and to maintain the health while eight of the women who did not participate in the screenings either did not talk about this matter or stated that they had negative opinions about detecting the health problem at an early stage and maintaining the health. "Pap smear test is definitely beneficial as a measure for the future. I believe that all women had better take it. This applies to everything you can imagine. If a pimple emerges, a measure should be taken immediately. Do not all diseases start in this manner? Firstly small but becomes more and more severe." (GS, 72 age, married, irregular Pap smear).

***Perceived Facilitators in Cervical Cancer******Encouragement and Information by the Health Professionals***

Twelve elderly women had a thought that participation in the screenings was low because women were illiterate concerning cervical cancer and screenings. Women expressed that if they are informed through trainings, brochures and media as well as by the health professionals and they are encouraged to take the tests verbally, participation rates could increase and gave the following recommendations: "I don't know but if they were announced in the health centers or other places, I would probably take them. They can use figures or numbers etc. so that I can understand how serious this disease is and apply to a doctor and take the screenings every year. Firstly, you have to explain the situation to people in detail. Is it really fatal? Is it necessary to be examined every year? If it is explained sufficiently, I am sure that everybody takes screenings to assure that she is healthy. I go to a doctor only if I have a sufficient level of knowledge and I am informed about its benefits and harms. Then, I certainly take the screenings. (GA, 65 age, married, not Pap smear).

***Interactions between People***

Importance of interaction between the people to increase participation in Pap smear screening was emphasized by five elderly women and they expressed that they decided to take screenings after they talked this issue with their family members and friends. Only a few participants stated that they participated in the screenings in compliance with the advice of a doctor. "My friends and family members pay attention to such issues and take these screenings. We also talk to each other about this issue." (HÇ, 64 age, married, irregular Pap smear).

"I took the smear test by following the advices of my doctor. Cervical cancer

screening was performed. My opinion is that what is considered necessary by the doctor after my examinations should be done.” (NU, 62 age, married, irregular Pap smear).

### Discussion

This study examines the barriers and facilitators perceived by women aged between 60 and 75 years regarding the cervical cancer early detection behaviors within the theoretical structure of HBM and HPM.

A majority of the elderly women stated in this study that they did not participate in cervical cancer screenings as a preventive health practice even though they were aware of the importance of Pap smear test. As in the studies of Wong et al., (2009), Guilfoyle et al. (2007), the perception that there is not need to cervical cancer screening if there are not any symptoms was frequently expressed by elderly women in this study. A relationship was found between presence of symptoms and increase in cervical cancer screening rates in many studies (Agurto et al., 2004; Ogedegbe et al., 2005; Guilfoyle et al., 2007). Considering themselves healthy besides to the fear of losing their healthy status (loss of a positive perception) if they are diagnosed with a disease when they resort to a hospital might have prevented them from participating in the screening. While Ogedegbe et al., (2005) specified a good perception of health as a barrier to participation in screenings, Madelblatt et al., (1999) reported that rate of participation in pap smear tests increased in elderly women with good perceptions of health. Pender et al., (2006) reported that importance attached by the individuals to their health directly affected their health behaviors, individual health definitions were important in display of health promotion behaviors and individuals usually became aware of the importance of their health when they became ill or experienced the fear of death. Preventive health practice in cervical cancer is not a priority for elderly Turkish

women. This results from the fact that they culturally focus on treatments once they become ill instead of preventive health practices. In this study, more than half of the participants expressed their possibility of having cancer as low. It can be argued that cervical cancer sensitivity perceptions of elderly women are low on such grounds that they do not have any symptoms, they do not consider themselves under risk of having cervical cancer, they do not have any cancer cases in the family history, they regard themselves too old to participate in screening and they do not perceive cervical cancer as a sexual threat.

Most of the participants of this research had a thought that cervical cancer is a serious and fatal disease that can not be treated. While some of the women who had cervical cancer cases in their families and around them participated in screenings, some of them did not participate. It was reported that cervical cancer cases in the family and surrounding may encourage women to participate in screenings (Howson, 1999; Lee et al., 2007). Some of the participants might not have considered family history as an important risk factor in taking the Pap smear test in this study due to their lack of knowledge. Studies conducted so far have listed lack of knowledge, medical advice, lack of communication, embarrassment and fear as major barriers (Austin et al., 2002; Agurto et al., 2004; Guilfoyle et al., 2007). In Turkey, Mete (1998) stated that women refrained from gynaecological examination on such grounds as lack of knowledge, negligence and embarrassment. Lack or inadequacy of knowledge related to the cervical cancer might have influenced the sensitivity and severity perceptions of women. Lack of knowledge or false information may have prevented the elderly women from participating in screenings as they can reduce disease sensitivity and severity perceptions of women. HBM implies that there is a relationship between disease sensitivity and severity perceptions

of individuals and displaying a preventive health behavior. It was emphasized in this study that consultancy and information provided by the health professionals and encouragement to participate in screenings were of great importance. It is obvious that attitudes of health professionals associated with preventive health services should also be revised since a majority of women obtained their knowledge directly from media instead of health professionals. The fact that elderly women did not have adequate education might have decreased their cervical cancer sensitivity and severity perceptions. Thus, it is of paramount importance that doctors, nurses and the other health professionals remind the elderly women of screening times and inform them as regards to why participation in screenings is essential. Studies indicated that training materials and reminding systems (telephone, card etc.) specially prepared for women were important practices in their participation in cancer screening tests (Austin et al., 2002; Curbow et al., 2004). It is emphasized that information provided by the health professionals is necessary to help women develop positive health behaviors and apply to early detection practices (Ackerson & Gretebeck 2007).

One of the major culture-specific barriers experienced regarding participation in cervical cancer screening was embarrassment/privacy. As display of a special part of the body during physical examination arouses embarrassment, examination of Turkish women by a male doctor might be an important barrier to participation in screening. It was determined that embarrassment increased with age and it was inversely proportional to taking the Pap smear test (Lee-Lin et al., 2007). In our study, most of the participants frequently expressed that they preferred female doctors due to embarrassment even though they stated that sex of the doctor did not have any importance for them. One woman did not take screening just because of the fact that

there was not a female doctor in the center. It was also determined in other studies that sex of the doctor was a major barrier impeding the participation (Van Til et al., 2003; Guilfoyle et al., 2007; Abdullahi et al., 2009). Despite cultural changes taking place in the Turkish society, elderly women can have certain taboos concerning the display of the body to a stranger as they can be expected to be more faithful to their cultural values and religious principles. Therefore, it might be one of the most frequently addressed barriers. Women can be influenced by individuals (family, neighbours, friends and health professionals) who are important in their lives while they are investigating a disease and its care (Ogedegbe et al., 2005). However, embarrassment might be preventing individuals from discussing cervical cancer with their relatives, friends and doctors. Embarrassment may be a more important determinant than sensitivity perceived by the women in their decision to participate in cervical cancer screenings. Thus, this issue should be addressed delicately in the health promotion training messages.

Likewise, it was also reported in other studies that dissatisfaction with previous health service experiences of taking Pap smear test and pelvic examination was a major barrier to the participation of women in the next test (Agurto et al., 2004; Guilfoyle et al., 2007; Abdullahi et al., 2009). It was indicated that doctors should strongly recommend the participation in screenings (Austin et al., 2002; Van Til et al., 2003; Ogedegbe et al., 2005; Guilfoyle et al., 2007) and the health professionals should use effective communication skills (Van Til et al., 2003; Agurto et al., 2004).

Fear experienced by the elderly women regarding the screenings was included among the barriers. Some of the elderly women mentioned their fear of being diagnosed with a disease, their anxieties related to not sterile processing and the possibility of having the disease if they think

about it. It was determined in the study of Abdullahi et al., (2009) that women had anxieties resulting from not sterile processing in taking the Pap smear test. Fear was also demonstrated as a barrier in the other studies (Austin et al. 2002; Agurto et al., 2004; Ogedegbe et al., 2005). Although elderly women believed that they were responsible for their own health individually, they might have developed negative health perceptions due to change in their health and health perceptions with aging. Decrease in the desires of most of the women who had previously taken the screening tests to detect the health problem at an early age and to maintain their health with increasing age should be discussed in the training programs.

### Conclusions and Recommendations

Almost none of the participants of this study took the screenings regularly and they addressed the benefits of cancer screenings only slightly. What was discussed more frequently by them was the barriers. In parallel with both models, findings of this research also indicate that perceived barriers constitute a major variable in displaying the cervical cancer screening behaviors. They also reveal that such barriers of women as lack of knowledge, embarrassment, previous negative health service experience, fear, considering themselves too old to display health protection and promotion behaviors might have an important role in increasing the cervical cancer screening rates in the society. Public health nurses, other health professionals and researchers can take the following practices into account so as to increase the cervical cancer screening rates: First of all, public health nurses and other health professionals should provide the women with sufficient information to increase participation in cervical cancer screenings. To this end, community oriented training programs providing sufficient, correct and full information related to cervical cancer should be organised. It must be explained to women in the trainings that

cervical cancer can be substantially treated with early detection and their fears should be alleviated. Findings of this research can be used in such training programs to be prepared with the aim of increasing the cervical cancer screening rate in elderly women.

Secondly, as indicated by the findings of this research, women feel embarrassed with a male doctor. Health professionals should be aware of the attitude of women towards male doctors. They should try to alleviate the embarrassment of women with certain practices during examination as much as possible and give information to them about the procedure prior to examination. Women should be allowed to ask questions about the procedure. Such practices may prevent women from developing negative feelings concerning the examination. Thirdly, trainings on communication between health personnel and patient should be held in centers and organisations aiming at decreasing the negative experiences of women related to the health system. It might be beneficial to revise the probable institutional measures concerning such issues as facilitation of appointments, in particular, in the health system. As a fourth step, we recommend to discuss the barriers and the effect of culture on the participation of health professionals in early detection studies as well as elderly women in seminars, conferences and workshops and to raise awareness in this regard. Finally, researchers can carry out longitudinal examinations on the relationship between barriers and facilitators of cervical cancer early detection behavior in the future. Studies aimed at determining the prevalence of factors specified in relation to the participation of women in regular cervical cancer screenings can also be conducted.

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