

## RESEARCH COMMUNICATION

# Examination with the Health Belief Model of Women's Attitudes to Cervical Cancer and Early Diagnosis in Turkey: A Qualitative Study

Emel Tasci Duran

### Abstract

**Objective:** The study was planned with the purpose of examining women's attitude to the health belief model, and their attitudes and behavior towards cervical cancer and early diagnosis. **Materials and methods:** The qualitative (case-study) method was used in this study. Data were collected between October 2010 and November 2010 using a purposive sampling method for qualitative research. The study sample constituted from 11 women being treated at two clinics, between the ages of 15 and 49, who were married, and who had not previously had a pap-smear test. Data collection tool consist of two parts that are an "Information Form" identifying women and semi-structured "Interview Form". Interviews were done face to face by using in-depth interviews technique. Semi-structured interview was recorded in audio recording device. Content analysis method was used to assess the data. **Results:** Awareness is insufficient that of women about cervical cancer prevention and early diagnosis, there is less fear of cervical cancer. Information of women is inadequate about early diagnosis and prevention of cervical cancer and there are various barriers about early detection and prevention. According to content analysis, three main themes emerge. These are the themes of belief, knowledge and barriers. **Conclusions:** It became clear from interviews carried out in line with the health belief model why women did not exhibit positive health behavior. It is recommended that this study should be repeated in other parts of Turkey. In addition, this study can serve as a guide to quantitative studies in wider communities.

**Keywords:** Cervical cancer - protection - pap smear test - women - health belief model

*Asian Pacific J Cancer Prev*, 12, 1179-1184

### Introduction

Cancer of the cervix is the second most common cancer in women worldwide, with about 500,000 new cases and 250,000 deaths each year (WHO, 2010). Current estimates indicate that every year 529.409 women are diagnosed with cervical cancer and 274.883 die from the disease. Using crude incidence rates, cervical cancer ranks as the 3rd most frequent cancer in women in the World (Gynecologic Cancer Foundation, 2010). Current estimates indicate that every year 1443 women are diagnosed with cervical cancer and 556 die from the disease. Cervical cancer ranks as the 9th most frequent cancer among women in Turkey, and the 7th most frequent cancer among women between 15 -44 years of age (WHO/ICO, 2010).

Early detection can prevent or delay the progression of cervical abnormalities to invasive cancer. Screening through Papanicolaou's (Pap) smear testing has resulted in a marked decrease in morbidity and mortality from cervical cancer (Cohen et al., 1999; Taylor et al., 2004). Knowledge, beliefs about cancer have been shown to be important in determining behaviors related to cancer

prevention (Cohen et al., 1999). In Turkey, since 1970, greater emphasis has been placed on cancer to increase the awareness of the public on the importance of early detection. Considering the importance of cancer, a national program and targets for the prevention, early diagnosis, and treatment of cancer have been planned (Ministry of Health, 1997).

In Turkey, cancer screening activities are being conducted at Cancer Early Diagnosis and Screening Centers located in 49 provinces as well as Mother and Child Care and Family Planning Centers within the scope of the Reproductive Health Program and by means of the polyclinic and clinic activities of hospitals. For the early diagnosis of cervix cancer, a community-based pap-smear screening program has not been implemented in our country. Turkey is still insufficient, due to poor health care access and unorganized health care systems (Uysal&Birsal, 2009; Ak et al., 2010). As well as, the factors reducing the participation of women in the cervical screening programme are; 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; lack of female screeners or convenient clinic times; anxiety caused by receiving an abnormal cervical smear result; poor understanding of cervical screening procedures; and a need for additional information (Fylan, 1998).

Akyüz et al. determined that there was a difference in behavior in having pap smear tests carried out according to women's age, education level, race, socioeconomic status and cultural attributes. In the same study, it was found 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 (Akyüz et al., 2006). Ak et al. found that the proportion of women having pap smear tests carried out was 19.4%, and the proportion of those not having it carried out was 80.6% (Ak et al., 2010).

In the community-based study conducted by Sirin et al. (2006) in Izmir, the rate of women having pap-smear testing was determined to be 14.6 % (Sirin et al., 2006). It can be seen that the proportion of pap smear tests carried out in Turkey is very low. In particular, in a Muslim country like Turkey, beliefs and attitudes which derive from the culture affect behavior towards early diagnosis methods such as the smear test. Such factors as shyness of the health professionals fear of invasion of privacy, and unwillingness to go to male doctors can affect women's behavior towards early diagnosis (Çelik et al., 2009).

It has been shown that there is an important relationship between attitudes and behavior towards early diagnosis in women and their beliefs on health (Matin&Lebaron, 2004). Much promising research has focused on health cognitions and emotions that may help determine cancer screening behaviors (Haya et al., 2005).

It is critical to understand why people fail to use screening. There has been no qualitative study in Turkey on the reasons why women do not carry out protective measures against cervical cancer. For this reason, it was important to conduct this study and to examine in detail by a qualitative method woman's attitudes and thoughts towards cervical cancer and its early diagnosis, in order to guide future studies and health policies related to screening programmes. Besides this study, which involved gaining an understanding of what factors influence a women's pap smear screening use decision, is a critical first step in increasing screening usage. The study was planned with the purpose of examining women's attitude to the health belief model, and their attitudes and behavior towards cervical cancer and early diagnosis.

Many theories have been developed to explain health-related behaviors, and one of the most prominent is the health belief model (Wackerbarth et al., 2005). The Health Belief Model (HBM) addresses the individual's perceptions of the threat posed by a health problem (susceptibility, severity), the benefits of avoiding the threat, and factors influencing the decision to act (barriers, cues to action, and self-efficacy). The Health Belief Model (HBM) was one of the first theories of health behavior, and remains one of the most widely recognized in the field (Theory at a Glance, 2005).

The model assumes an individual will adopt a preventive behavior if a combination of levels of perceived

susceptibility and seriousness of the condition is produced, provided the individual has the power or energy to act as well as a preferred course of action (Agurto et al., 2004). When applying the HBM to planning health programs, practitioners should ground their efforts in an understanding of how susceptible the target population feels to the health, whether they believe it is serious, and whether they believe action can reduce the threat at an acceptable cost. Attempting to effect changes in these factors is rarely as simple as it may appear (Theory at a Glance, 2005).

## Materials and Methods

The qualitative (case-study) method was used in this study. A qualitative approach, which emphasizes the importance of describing the subjective perceptions of participants, is essential to this orientation. The universe of the study consisted of married women between the ages of 15 and 49 being treated at the Süleyman Demirel University Research and Application Hospital (Gynaecological and Obstetrics Clinic) and the Gynaecological and Children's Hospital (Obstetrics Clinic) in Isparta, which is a small city in Turkey with a population of 180 000. Research data were collected between and for October 2010 and November 2010. In this study, the purposive sampling method was used qualitative research methods. The study sample was constituted from 11 women who were being treated at these two clinics, who were between the ages of 15 and 49, who were married, and who had not previously had a pap-smear test. The university hospital is a third-stage hospital which includes among its patients people at all socioeconomic levels, but the Gynaecology and Children's Hospital tends to work more with people at a low socioeconomic level. There is no certain number of sampling in qualitative research. Accordance to purpose and field work of Ethnonursing, negotiator between 10-15 is desired numbers (Leininger, 1998). Data collection was continued until sufficient data had been obtained.

Data collection tool consist of two parts that are an "Information Form" identifying women and semi-structured "Interview Form". Interview questions were created by the researcher for the purpose and method of the research according to the items of Health Belief Model in accordance with appropriate literature (Fylan, 1998; Cohen et al., 1999; Glasgow et al., 2000; Taylor et al., 2004; Çelik et al., 2009; Agurto et al., 2004; Ak et al., 2010). The model consisted of four main sections. These were perceived sensitivity (4 questions), perceived seriousness (4 questions), perceived benefits (6 questions) and perceived barriers (14 questions). The information form included 29 questions on demographic data, the risk factors for cervical cancer, and cancer. The interview form consisted of 28 questions in stages which were consistent with the content of the model. Interview questions were evaluated by specialist on the subject. A pilot study was done to ensure validity and reliability of the interview form. At the end of the interviews, interview form was reviewed and re-arranged. In order for the interview to be carried out in an appropriate setting, patients in single rooms were preferred.

Interviews were done face to face by using In-depth interview technique. Semi-structured interview was recorded in audio recording device. Observations about persons were noted after the interviews. After transferring interviews to a computer, negotiations were listened again and again to put into written form by Microsoft Word. Depending on the answers given by women duration of the talks has changed between the minutes of 15-25. At the end of the interviews people taking part in the study were provided with information on tests for the early diagnosis and screening of cervical cancer.

#### Data Evaluation

Content analysis method was used to assess the data. The data was read over and over. After reading, codes have found that may come of from each word and sentence. After code generation, thematic coding was done and codes were classified by researcher, appropriate themes and sub-themes were extracted. Written documents of interviews were examined by a three specialist on the subject. Then, all data interpreted according to theme, have been drawn up to reports.

#### Measures Taken for Validity and Reliability

Purposive sampling method was used to increase the reliability and validity of the study. Interviews also supported by observations. In this study, evaluation was done by three specialist persons with researcher. To get confirmation of the participants, it is asked to persons whether to add or remove any topics and answers were reviewed again. Detailed description is made and often direct quotations were given.

#### Research Ethics

For conducting the study, permission was taken from the Institutional Review Board of Suleyman Demirel University Health Sciences Faculty. Also for conducting the study, a written permit has been taken from the Hospitals. Written consent was obtained from all participants stating that they were willing to participate in the study.

#### Research Questions

1) Why are women not protected from cervical cancer?; 2) Why is the pap smear test, which is effective for the early diagnosis of cervical cancer, not carried out on women?; 3) What are women's thoughts on protection from cervical cancer?

## Results

The average age of the women was 29.27±4.64 years, and their age of first sexual intercourse was 23.0±2.8 years. All but one woman had social security. 45% of the women had completed high school education, and 72.8% of them lived in small towns or villages. 63.6% of the women had no experience of cancer in themselves or in anyone close to them. 45.5% of them thought that they could be protected from cancer. 54.5% had heard of the pap smear test. 54.5% stated that they knew nothing about cervical cancer. In content analysis carried out after the

interviews performed according to the health belief model, three main themes emerged. These were the themes of belief, information and barriers. The numbers at the ends of the statements are the participation numbers given to the women.

#### Belief

It was found from certain statements that the women were aware of various topics relating to cervical cancer. *It's dangerous too, like any other cancer (subject number 7). It always has to be kept under control (9). I think that if we check for it enough we can prevent it, and we shouldn't just leave it, saying everything comes from Allah (God in Muslim belief). Like they say, tie your donkey to a strong post (a saying which means 'Take precautions.')* (10).

It was noticeable that many statements showed up deficiencies in the women's awareness of topics relating to cervical cancer. *I'm not too afraid of getting cancer, but I think about it (8). I may have a five percent chance of getting cancer (10). There certainly is a risk, but I don't know (7). I've heard about it. I don't know, I don't think about it. I suppose I'm not at risk of catching it (2).*

The emphasis in some statements by certain women that cervical cancer was more important because it concerned the reproductive organs suggests that reproductive ability is important. *If it was in another part of me it wouldn't be so important, but there (cervical) it's more important (11). Sometimes people have their breasts removed and sometimes their uterus because of cancer (1).*

It is noticeable that there was an affirmative about cervical cancer among many of the women. *I don't know; I think you probably get it as you get older (3). I thought older people usually got it (10).* A few of the women stated that they were afraid of getting cervical cancer, but the others did not express such a thought. It was seen that many of the women reacted positively to early diagnosis and protective methods. *We have to be checked to see if there is anything in our bodies. After that's been done I'm sure there won't be anything (5). There certainly must be ways of preventing it, but I don't know... if the specialist tells me something I'll do it (10). If they tell us something we'll try to protect ourselves; like if the doctor we go to tells us something, to do this or that, we'll do it (8).*

It was seen that many of the women had negative health beliefs about the need to be tested, to be checked by a doctor or to go to a doctor when they were healthy. *Like I've never had it done (an examination, an early diagnosis test), I've only been when I was pregnant; I've never been for myself (1). What difference would it make if I did go (to the doctor)... it's all the same in the end (8). I don't feel the need for it (going to the doctor when you're healthy)... there has to be something wrong with you, but we get over it somehow. I dunno... (6).*

When the women were asked where they needed to get information from in order to be convinced to have the smear test for early diagnosis, to go for a checkup etc., most answered that they would be motivated to do this if health professionals gave them face to face instruction. *If the health workers did it it'd be better; you'd be better motivated; even if you're not going to have the test at least you'd know there is such a thing; the people at the health*

centre don't tell you much (11). The most effective way is talking one-to-one with the health professionals of course (7). If the doctor tells you, it'll be more effective (3).

Some beliefs of Turkish women which affect whether they have examinations or tests may arise from inhibitions relating to religion or to being examined by a male doctor; nevertheless, all the women stated that they had no religious objections and that they made no distinctions by gender. *Of course you're not restricted (on religious grounds) from showing yourself to a doctor. Of course we take our religion seriously but health is important and if there's a problem we go to the doctor. It doesn't matter if it's a man or a woman. What can you do about it if you're in your grave tomorrow (in the future)? Nothing. You have to take care of your health (8). There's nothing against it from the point of view of religion. This is about health... Your health is more important (2). There's no religious restriction... the doctor could be a man or a woman, there's no difference. It's not sinful when health is involved (9).* According to the women's statements, most were undecided as to whether cervical cancer was a problem sent by Allah or whether it was related to a person's own health behavior. *You shouldn't put yourself at risk saying it comes from Allah, you should take precautions. Allah is testing you in this world and you can't just lie back and suffer saying that it all comes from Allah. Won't Allah say "I sent you into the world to test you, and you allowed yourself to suffer pain and didn't understand what to do about it"? We're aware of all this (8).* Most of the women showed a fatalistic approach, believing that a problem like cervical cancer was sent by Allah. *May Allah protect, Allah willing we won't get it (cancer) (7). A thing given by Almighty Allah, that's like death... an illness given by Allah (11). If you want to live, you'll protect yourself any way you can. If you get cancer you'll die and if you don't get cancer you'll die; you'll get treatment, but if death is in Allah's hands there's nothing you can do about it (8).*

### Information

It was found that for most of the women, their knowledge of the risk factors for cervical cancer was low. Some of them made statements regarding the risk factors, and these generally concerned the concept of cleanliness. *Well, I think people who are a bit dirty catching it... you have to be clean (8). Maybe people who aren't clean get it, or maybe it's hereditary (6). I don't know... but I think perhaps people who aren't careful about cleanliness (4). Examining the women's statements on the topic of the effect of cervical cancer on people, it was seen that they tended to mention effects on family and sexual functions. It's said to affect your sexuality, yes, we hear this (9). You can have difficulties in sexual relations (1). It'll certainly change between me and my husband, and psychologically there'll be depression (8). There'll be nothing left between me and my husband... it can be like that (3).*

It was seen that most of the women did not know how to protect themselves against cervical cancer, and some stated that they thought it was mostly to do with paying attention to cleanliness. *To cleanliness, eating and drinking, not catching infections, catching microbes, we have to have normal births, we shouldn't have too many*

*children, an ordered life, ordered sexual relations... (9) We generally have to be clean and follow the rules of hygiene; I don't know anything else about it (1). You especially have to be clean in sexual relations (11).*

### Barriers

It was seen that the women generally knew nothing about the pap smear test as an early diagnosis method, and some of those who did had mistaken ideas about it. Some of the women stated that they had not had the test out of fear. *There is (such a test). They take a piece of you probably (5). The doctor wanted a smear test but I didn't let them do it... I didn't know what kind of test it was but I asked people who'd had it done. They take a part of you, they said (1).*

The women taking part in the study stated that they had not had tests or doctor's examinations for reasons such as lack of information, apathy, transport difficulties in reaching the health centre, or the fear of a bad result. *In fact you shouldn't do it but everybody's like that. Thoughts like when you have a test, if there's a bad result what'll happen to me? (5). I want to go, yes, but there's a problem with the hospital where I live, it's an hour away. It's difficult to get there (3). The hospital's a long way away (2). You can call it apathy. We can't spare five minutes for it. You adapt to so many things in life and you can't find the time for anything else (5). If I'd known I'd have had the test (11).*

It was revealed from the statements of some of the women that they would only go to the doctor when they had a health problem. This would be a barrier to their going to the doctor for a test or checkup. *We Turks don't go to the doctor unless we're in serious pain (4). If I'm not in pain, I think there's probably no need (10). If I have a problem, I go straight to the doctor (11). There were features of the women's statements which suggested that they had not fully perceived the seriousness of cervical cancer. I'd never thought about it until now (about what would happen if I had cancer) (7). I don't know, I haven't heard about it, because it hasn't happened to me (5). I can't say, because no one close to me has had it (8). I've never thought about it... I don't have that fear, I mean (3). Getting cancer isn't something I often think about (10).*

According to the women's statements, it is clear that they lack trust in some ways. This can have a bad effect on positive health behavior. *Sometimes we go to the doctor but it may do no good... That's how it is (6). I go for a checkup regularly, but the next week I may have a problem... I had severe pains and the doctor didn't know what it were (11). Each television channel says a different thing and we don't know which one's advice to follow. It'd be impossible to follow them all (8). There's a certain amount of truth in information from the television, but it can sometimes be misleading (10).*

### Discussion

Awareness is insufficient that of women about cervical cancer prevention and early diagnosis, there is less fear of cervical cancer. Information of women is inadequate about early diagnosis and prevention of cervical cancer and there

are various barriers about early detection and prevention. According to content analysis, three main themes emerge. These are the themes of belief, knowledge and barriers. This section examines in detail the reasons why the women did not exhibit behavior relating to protection and early diagnosis of cervical cancer. The findings reported in this study were based on qualitative research that focuses on meanings and interpretations of women. Qualitative research provides a sophisticated research strategy to understand how, and why, people act in particular ways. However, the findings generated from a qualitative method cannot be generalized across the whole population. Although conducting a small sample qualitative study increases the depth and detail of information gathered, it limits the generalizability of the findings. Participants were clear about the impact of barriers and motivators on cervical cancer screening.

In Turkey, tests such as the pap smear test are carried out free of charge to people who have social security. For those who do not have social security, the charge may be a problem. Some studies have found that the charge for examination by a doctor and the test may be a problem for some women (Boyer et al., 2001; Agurto et al., 2004). In our study, most women had social security, so this was not seen as a problem. However, the women were not sure whether this test involved an extra charge.

Some women are aware of the necessity of taking precautions and the risk of cervical cancer. But despite this awareness, women have not positive health behavior. The women did not give enough importance to cervical cancer and did not think they were at risk. It was noticeable that the women had an accepting attitude towards cervical cancer. It is thought that the thought they may get the illness as they get older may affect their behavior towards protection and early diagnosis. In one study, thoughts were expressed that cervical cancer was easily treated and was not as dangerous as other types of cancer (Johnson et al., 2008). In different study, thoughts were expressed that as you got older you would get this illness (Glasgow et al., 2000). In different study, women expressed such thoughts as "we don't know what will happen in the future so there's no need to worry about it now" (Hoeman et al., 1996).

Fear is an important factor in protection from illnesses. However, most of the women in the study did not have a fear of cervical cancer. The women were not sufficiently informed on the subject of cervical cancer. Half of them stated they had no information on cervical cancer. The women displayed the attitude that if they had the information they would show positive health behavior. This attitude is important from the point of view of improving their health behavior and for shaping education programmes. The women's statements contained the idea that recommendations regarding tests and examinations would be more effective on this behavior if they were made by health professionals or doctors. It was also said that written warnings might be more effective. This kind of statement is important in motivating women with regard to protective health behavior. In one study, it was found that most women who obtained information from health professionals had the pap smear test (Ak et al., 2010). In another study, it was found that it was more important to

obtain information from a doctor, and that written material could be used as motivation (Austin et al., 2002). These thoughts can act as a guide to show the right way to inform women. Also according to the statements, it is thought that little trust is placed in elements such as television and radio.

Another finding of this study was that negative attitudes towards such behavior as being examined might cause the women not to show protective health behavior. This, as these finding shows, may be related to their past experience. The women's statements that they had no objection on religious grounds to being examined or tested and that the gender of the doctor was not important to them are important in that these factors do not constitute a barriers. Certain Islamic texts state that women should not be examined by a male doctor except in circumstances of necessity. Other studies found that women preferred to be examined by female doctors (Boyer et al., 2001; Austin et al., 2002; Wackerbarth et al., 2005; Johnson et al., 2008). However, it is encouraging that women in this study did not show this attitude.

It was found that the level of knowledge of the risk factors in cervical cancer was low. The most widely expressed idea was that not being clean was a risk factor. It is known that inadequate hygiene practices have an effect on the occurrence of cancer of the cervix. The statement that in Islam cleanliness comes from faith was widespread. Similarly in another study, a belief was expressed that people who were not clean would get cervical cancer (Johnson et al., 2008).

It was stated that cervical cancer could have effects on sexuality and thus cause problems between the husband and wife. The fact that the psychosocial effects were mentioned more than the physical effects may originate from the importance and value given in Turkish society to the family. Sexual duties play an important part in the Turkish family structure for some women.

The women did not have knowledge of behavior to protect themselves from cervical cancer. They thought that they could be protected only by following the rules of hygiene. Even though paying attention to hygiene may be necessary to avoid cervical cancer, it certainly is not enough. Nevertheless, it can be said that Turkish women may be generally less at risk of sexual infection than women in some other countries. In Turkish culture there is an attitude which restricts sexual relations before marriage and with other partners after marriage. However, 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.

Factors such as lack of information, apathy, difficulty of getting to health facilities, or fear of a bad result can all hinder behavior such as being tested or examined. Especially, women living in small communities prefer to be examined in hospitals in the provincial centres. It was found that some women were afraid of the pap-smear test because they had mistaken ideas about it, with the result that they were unwilling to have the test. Fear arising from lack of information can only be overcome by means of detailed instruction. Prohibitive factors such as fear of the test, lack of information and insufficient

information from health professionals has been identified in various other studies (Glasgow et al., 2000; Taylor et al., 2004; Johnson et al., 2008). Turkish women, like women in the rest of the world, tend to go to a doctor only when they have a health problem. The same idea has been expressed in other studies (Hoeman et al., 1996; Glasgow et al., 2000; Boyer et al., 2001; Agurto et al., 2004; Wackerbarth et al., 2005; Johnson et al., 2008; Ak et al., 2010). According to a study by Çelik et al., people do not go for medical checkups unless a health problem affects their daily activities (Celik et al., 2009). In the study, a fatalistic attitude can be seen in the women, who said that a disease like cancer is a problem sent by Allah. It had been found in other studies that a fatalistic attitude can be a barrier to protective health behavior (Johnson et al., 2008; Austin et al., 2002; Taylor et al., 2004). Some women were undecided as to whether cervical cancer was a problem sent by Allah. The thought of having cancer is not one which often occurred to the women, and it was seen that they had problems in appreciating the seriousness of cancer of the cervix. It is clear that work to provide detailed information is as important as protection from the disease. Women who have previously had checkups and think they have the disease and are affected by this may have a negative attitude to protective behavior. The effect of negative previous experience on health behavior is shown in this way. It can be seen that various factors can affect women's protective health behavior and behavior towards early diagnosis. These results give some clues to the reasons why the women of one region of Turkey do not show protective health behavior and do not take advantage of early diagnosis. These results can also serve as an example for women in other parts of Turkey. The results of the study are important to guide scanning and education programmes in Isparta province in Turkey.

It became clear from interviews carried out in line with the health belief model why women did not exhibit positive health behavior. As can be seen from the results, it is clear that there is a need for a detailed information campaign on cervical cancer. It was seen from information given after the interviews that the women realised the need for early diagnosis, and that their unnecessary worries regarding the test were removed. It was clear that education programmes should be conducted face-to-face by health workers and not through the media. Results showed that education programmes conducted on a one-to-one basis would be more effective. It is recommended that this study should be repeated in other parts of Turkey. In addition, this study can serve as a guide to quantitative studies in wider communities.

## References

- Agurto A, Agurto MG, Sánchez Z, et al (2004). Perceived barriers and benefits to cervical cancer screening in latin America. *Preventive Medicine*, **39**, 91-98.
- Ak M, Canbal M, Turan S, et al (2010). Aile hekimliği polikliniğine başvuran kadınlarda pap smear testinin farkındalığının değerlendirilmesi. *Konuralp Tıp Dergisi*, **2**, 1-4.
- Akyüz A, Güvenç G, Yavan T, et al (2006). Kadınların pap smear yaptırma durumları ile bunu etkileyen faktörlerin belirlenmesi. *Gülhane Tıp Dergisi*, **48**, 25-29.
- Austin T, Ahmad F, McNally M et al (2002). Breast and cervical cancer screening in hispanic women: a literature review using the health belief model. *Women's Health Issues*, **12**, 122-128.
- Boyer LE, Williams M, Calker LC, et al (2001). Hispanic women's perceptions regarding cervical cancer screening. *JOGNN*, **30**, 240-245.
- Cancer (2010) Available at: <http://www.who.int/mediacentre/factsheets/fs297/en/index.html> (accessed December 2010).
- Cohen PE, Sorn MH, Braitman R, et al (1999). A pilot study of cancer knowledge and screening behaviors of vietnamese and Cambodian. *Women Health Care for Women International*, **20**, 195- 207.
- Çelik GO, Malak AT, Öztürk Z, et al (2009). Menapoz sonrası dönemdeki kadınların kendi kendine meme muayenesini uygulama, mamografi çekirme ve pap smear yaptırma durumlarının incelenmesi. *Anatol J Clin Investig*, **3**, 159-163.
- Fylan F (1998). Screening for cervical cancer: a review of women's attitudes, knowledge, and behavior. *Br J Gen Pract*, **48**, 1509-14.
- Glasgow RE, Whitlock EP, Valanis BG, et al (2000). Barriers to mammography and pap smear screening among women who recently had neither, one or both types of screening. *Ann Behavmed*, **22**, 223-228.
- Gynecologic Cancer Foundation (2010) Gynecologic Cancer Awareness Month Fact Sheet Types of Gynecologic Cancers Available at: [www.wcn.org/downloads/fact\\_sheet\\_types\\_gynecologic\\_cancers.pdf](http://www.wcn.org/downloads/fact_sheet_types_gynecologic_cancers.pdf) (accessed August 2010).
- Haya JL, Buckley TR, Ostroff JS (2005). The role of cancer worry in cancer screening: a theoretical and empirical review of the literature. *Psycho-Oncology*, **14**, 517-534.
- Hoeman SP, Ku YL, Ohl DR (1996). Health belief and early detection among Chinese women. *West J Nurs Res*, **18**, 518-33.
- Johnson CE, Mues KE, Mayne SL et al (2008). Cervical cancer screening among immigrants and ethnic minorities: A systematic review using the health belief model. *J Lower Genital Tract Disease*, **12**, 232-241.
- Leininger, M. (1998). Qualitative research methods in nursing, USA. Greyden Press. pp. 33-68.
- Matin M, Lebaron S (2004). Attitudes toward cervical cancer screening among muslim women: a pilot study. *Women & Health*, **39**, 63-77.
- Ministry of Health. (1997). Health sector reforms in Turkey. Ankara, Turkey: Ministry of Health, Health Project General Coordination Unit.
- Sirin A, Atan S, Tasci E (2006). Protection from cancer and early diagnosis applications in Izmir, Turkey. *Cancer Nursing*, **29**, 207-213.
- Taylor M, Yasui Y, Burke N, et al (2004). Pap testing adherence among vietnamese american women victoria. *Cancer Epidemiol Biomarkers Prev*, **13**, 613-619.
- Theory at a Glance. (2005). A guide for health promotion practice National Cancer Institute NIH Publication No. 05-3896 Printed September 2005
- Uysal A, Birsal A (2009). Knowledge about cervical cancer risk factors and pap testing behavior among Turkish women, *Asian Pac J Cancer Prev*, **10**, 345-350.
- Wackerbarth SB, Peters JC, Haist SA (2005). Do we really need all that equipment? factors influencing colorectal cancer screening decisions. *Qualitative Health Research*, **15**, 539-554.
- WHO/ICO (2010) Fact Sheet 2010 Available at: [http://apps.who.int/hpvcentre/statistics/dynamic/ico/country\\_pdf/tur\\_fs.pdf?cfid=4107527&cftoken=28210302](http://apps.who.int/hpvcentre/statistics/dynamic/ico/country_pdf/tur_fs.pdf?cfid=4107527&cftoken=28210302). (accessed July 2010).