

A Study of the Factors Related to Screening of Cervical Cancer of Women in Ardabil Health Centers

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Abstract

Background and aims: Cervical cancer is the second most prevalent cancer in women after breast cancer. By prevention and using prevention methods, its development and the resultant mortality rate will no doubt decrease. Therefore, the present study aimed to examine the related causes through screening of cervical cancer of women in Ardabil, Iran.

Methodology: In this descriptive-analytic study, 300 women coming to health centers in Ardabil were selected through multi-step sampling. The data were collected through a researcher-made questionnaire composed of two parts, including knowledge and attitude questions, and a form to be filled with demographic information, family details, socioeconomic status, and midwifery-obstetrics risk factors. The data were analyzed by SPSS ver. 16 using descriptive and inferential statistics.

Findings: The rate of cervical cancer screening was found to be 25.3%. There was a significant relationship between cervical cancer screening and educational level ($p < .001$) and the history of sexual diseases. We could not observe a significant relationship between the test and insurance, smoking history, the age of the first marriage, and the number of marriages by each subject ($p > .05$).

Conclusion: With an eye on some crucial factors and their role in taking screening tests and an understanding of inaction regarding preventive practices, attention to other barriers and removing them is emphasized.

Keywords: screening test, women, cancer, cervix.

INTRODUCTION

Cancer is a non-contagious disease which results in the death of a lot of people each year. After coronary diseases, it has been reported to be the second cause of mortality in the United States (Abediyan, 2006).

Cervical cancer is the most prevalent cancer in women, breast cancer being the first (Khojasteh, 2004). Its rate is almost 80% in developing countries (Aklimunnessa, 2006). Most cancers are caused by environmental factors such as smoking, diet, exposure to certain working conditions, and personal habits (Garte, 2007). Having cancer encompasses mental, social, marital, economic, dietary, and infectious problems (Azizi, 2000).

Cervical cancer results in the mortality of 70 women out of 100000 each year (Cetina, 2004). In any case, cancer researchers count it as a major health problem during the last century (Khojasteh, 2004). Based on the research findings, cancer prevention and early diagnosis are among the vital factors in controlling the disease and increasing the chance of survival (Abediyan, 2004). Screening (pap smear), due to its high capability of diagnosing pre-invasive diseases during early stages, has decreased the prevalence and mortality rate caused by cervical cancer (Khadiviy et al., 2007).

In some studies, it has been found that, in some cases, the process of screening in order to reach higher levels of standard, has led to unrealistic attitude and thinking towards its benefits (Domenighetti, 2003). In addition, it has been proposed in the literature that owing to widespread access to suitable, low-cost, and sometimes free nature of screening, there has been little public favor to use it (Abediyan, 2006). Studies done by Khojasteh have specified a significant relationship between knowledge and attitude towards pap smear and cervical cancer. However, there has been little research on the other related factors dealing with cervical cancer screening in Iran, especially Ardabil. Due to high prevalence of cervical cancer in developing countries, it seems necessary to perform preventive pursuits to control the mortality rate caused by this cancer, highlight the importance of

pregnancy health as an aspect of human rights, pay more attention to women as the plausible risk group (Soltani, 2002), and encourage women to take screening tests of cervical cancer. This encouragement necessitates changes in behavior patterns of those women. The mentioned changes are influenced by such factors as personal, socioeconomic, family concerns, and the related risk factors. Recognition of these causes is necessary for women's performance regarding screening practice. To this end, we decided to examine the related factors with taking cervical cancer screening in women coming to health centers of Ardabil in 2009. The findings of this study might have implications for health planning and prevention policy-making to encourage women to take effective screening tests of cervical cancer which, in turn, leads to less prevalence and mortality.

Methodology

The population of this descriptive-analytic study was all the women coming to health centers of Ardabil in 2009. The subjects were to be Iranian, married, literate and have basic literacy in Persian. To collect the data, multi-step sampling was used. Based on socioeconomic status, Ardabil was divided into north and south strata. Then, on the basis of the amount of population of each area and their health centers, five clusters were selected from each stratum, 30 subjects were chosen through convenience approach. All in all, 300 subjects were included as the sample of the study. The instruments included a researcher-made questionnaire and an information form. The questionnaire consisted of two sections; one part having the questions of knowledge and the other including questions of attitude.

The knowledge questionnaire included 13 questions. We gave one point for each correct answer and nil for wrong and not given answers. Based on their total scores, the subjects were classified as low, average, and fine groups. The second section of the questionnaire included 15 attitude questions classified based on Likert scale (Totally agree, Agree, No idea, Disagree, Totally disagree). Again, on the basis of total scores of attitude scaling, the subjects were divided into three groups of positive, neutral, and negative stance. The ultimate scores of both knowledge and attitude were changed into percentile. The information form having 30 items included demographic characteristics, socioeconomic status, family details, risk factors, and obstetrics-gynecology variables. In order to determine the validity of the questionnaire, content validity approach was used. Reliability was calculated through test-retest and Cronbach α . The correlation coefficient was .92 for knowledge questionnaire and .99 for the attitude one. The procedure of data collection was in a way that those women coming to preselected health centers were chosen through convenience sampling. Then, the sample was provided with the necessary explanations regarding the aim of the study, the method of filling the questionnaire, and the confidentiality of the personal information. After getting their agreement to participate in the study and signing a written consent, the questionnaire was completed by the subjects.

The answers to the questionnaire were classified as total scores of knowledge and attitude as percentile, 0-33% as low knowledge, 34-66% as average knowledge, 67-100% as good knowledge and 0-33% as negative attitude, 34-66% as neutral, and 67-100% as positive attitude. The information about family, socioeconomic status, risk factors, obstetrics-gynecology, and demographic characteristics were analyzed through descriptive and inferential statistics by SPSS, ver. 16. The statistical tests included Mann-Whitney, Ch2, and Fisher's exact test. The level of p value was set at .05.

Results

In this study, analysis of subjects' demographic data showed a standard deviation range of 28.93 +/- 8.23. The age range was from 15 to 64. Among these women, 92.7% were housewives and the rest were holding different jobs. Around 35.7% of the subjects had a college degree along with their husbands (31%). A relatively high percentage of our subjects were self-employed. Around 48.3% of participants owned their houses and the majority of them (69.3%) enjoyed insurance. The income rate for 49.3% subjects was from 250,000 to 500,000 tomans. For the number of family members, in each family the mean and standard deviation was 3.58 +/- 1.35. The minimum family member was two and the maximum was 11. Among the subjects, 74.7% did not have any cervical cancer screening history and only 25.3% had such a test before. The standard deviation for the age of getting married was 19.83 +/- 3.56. The lowest age was 13, while the highest was 33. It was 1.02 +/- 0.15 for the number of marriages. The minimum number of marriages was twice. For the number of pregnancy, the standard deviation was 1.88 +/- 1.37 and the maximum number of pregnancy was 14 times. It was 1.5 +/- 1.31 for the number of delivery, being 11 the maximum number of giving birth. Regarding contraceptives, 56% had a history of such drugs, and did not have smoking history. With delivery in mind, 15.3% did not have such an experience. Around 58.2% had experienced vaginal labor. Most subjects did not have any history of sexual diseases and almost all of them had not mentioned anything about their cervical history. Almost 95.3% of our subjects had no cancer history in their close relatives i.e., parents and siblings. Around 89% reported no experience

of cancer in their less related relatives. Most subjects (56%) enjoyed an average level of knowledge. Among them, 57% were neutral in terms of attitude.

In this study, among individual factors, there was a significant relationship between knowledge and cervical cancer ($p < .001$). However, between knowledge and taking screening tests, we did not observe any significant correlation. It was found that the relationship between cancer history in parents and siblings and screening test of cervical cancer was not statistically significant. It was significant in terms of less related relatives ($p < .04$). Socioeconomically speaking, the relationship between level of education ($p < .004$), amount of income ($p < .04$), and taking screening test of cervical cancer was statistically significant. Table 1 shows the related issues of obstetrics-gynecology and risk factors dealing with cervical cancer and taking screening test to diagnose and prevent this cancer.

Discussion

In his study, the percentage of women trying to take cervical cancer screening test was found to be 25.3 in Ardabil health centers. Most subjects (74.7%) reported not to have any cervical cancer screening. The findings of Nojoomi et al. (2005-2006) in Tehran on the frequency of risk factors of cervical cancer in women coming to hospitals of Tehran are in line with those of present study. A nationwide study by Ramazani-Tehrani et al. (2000) aiming at examining knowledge and performance of Iranian women concerning cervical cancer showed that 41.6% women all over the country took pap smear at least once. The difference between this study and ours might be attributed to the age range of subjects. In that study the age range was 20-49. Those below this range considered themselves to be less plausible in terms of cervical cancer due to little age. Those above, because of their senility, gave less prominence to such a cancer.

There was a correlation between knowledge and cervical cancer screening. It was not the case in terms of attitude. Khojasteh et al.'s study (2004) indicated a positive correlation between knowledge and taking pap smear. Those who did not participate in screening were not aware of the benefits of such an undertaking; like the findings of our present research. In addition, in their study, a positive correlation was found between attitude and taking cervical cancer screening test. Face to face interview and classification of scores from the attitude questionnaire seems to bring about the difference between their study and ours. In their study, scoring 37 and above was considered positive attitude, while it was 67 plus in our study.

There was a correlation between the level of education and cervical cancer screening i.e., the higher the educational degree, the more the screening. From an economic status point of view, there was an increase in taking this screening test in families with higher levels of income and the families having more members. The Wong et al. (2008) study in Malaysia showed that the cost of taking check-up tests was so high that it functioned as a barrier to take pap smear. In addition, Khojasteh et al.'s study indicated that there was not a significant relationship between job and screening practice; the results being similar to what we found in our present study. The same is true on the correlation between insurance access and cervical cancer screening. In another study by Tacken et al. (2000) in Holland, they reported that there was not a statistically significant relationship between the type of insurance and its policies and taking cervical cancer screening test; similar to the results of our study. However, a study done by Ackerson and Gretebeck (2005) in the United States, concluded a relationship between insurance type and taking screening tests. This difference might be due to high cost of insurance. We found no relationship between cancer history in parents and siblings and cervical cancer screening, something similar to findings of Khojasteh et al. (2004). Moreover, we could not observe such a correlation between less related relatives and taking such tests. The justification might be attributed to those relatives having less fear of taking such screening tests. In this study, between risk factors of cervical cancer such as history of smoking, the age of the first marriage, total number of marriages, and taking cervical cancer screening test, no significant relationship was observed. However, the number of delivery, type of delivery, history of sexual diseases, history of cervical diseases, history of taking contraceptives, and the number of pregnancy had a relationship with cervical cancer screening. In Khojasteh et al.'s study (2004), those women having infection had taken more pap smear tests being in agreement with the results of our study. In the Tacken et al. study (2000), those women ranging from 20 to 50 who had just one partner, took the highest number of cervical cancer screening tests. One reason for this discrepancy might be the number of partners. In their study, 53.7% women had just one partner and 44.6% had two or more partners. But in our study, 2.3% of subjects had got married twice and the rest just once.

Conclusion

The results of this study necessitates more endeavor on the part of health planners and policy makers of the country to promote the methods of screening. It is necessary not to treat just training and prevention to be sufficient. Attention to other barriers and removing them is necessary, making it compulsory to have perfect, long-term, and continuous planning.

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