

ORIGINAL ARTICLE

Knowledge Assessment of Abadan High School Female Teachers about Seven Warning Signs and Effective Factors of Cancer in 2013-2014

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ABSTRACT

Before any educational and health planning, especially for prevention of chronic disease such as cancer, knowing society's knowledge about cancer warning signs and predisposing factors is essential. This investigation has done to evaluate knowledge of Abadan female high schools teachers about seven warning signs and effective factors of cancer. This research is a descriptive-analytic study which samples were included 270 female teachers of high-schools of the city of Abadan who were selected through a census method. Data collection instruments were researcher made questionnaires. After distribution of questionnaires, they were collected back without mentioning of the names of participants. Ultimately, the data were analyzed by the software of SPSS 17.0. The resulting data were analyzed through descriptive static and statistical tests consist of Mann-Whitney, Kruskal-Wallis, Spearman's correlation and Chi square. Findings of this investigation shows level of knowledge about cancer warning signs are 8.6% in inappropriate level, 36.8% in a proportionally good and 54.5% of teachers have appropriate level. Correlation among educational background, familial history of cancer and knowledge about cancer warning signs were significant (P value < 0.05). Status of female teachers knowledge about seven warning signs and effective factors of cancer is not very good. Since people's knowledge affects their attitudes and their attitudes affect their actions positively, it can be concluded that people's attitudes and actions regarding the prevention of cancer can be improved by studying their awareness levels and using educational guidelines.

Keywords: Cancer, Warning signs, Knowledge, Teachers

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INTRODUCTION

Cancer has been a global general health problem [1], and during the first years of 21st century, it was reported as the second widespread cause of death [2]. Only five to ten percent entire cancer cases are occurred by genetic defects and the remaining ninety to ninety-five percent are caused by adjustable elements such as lifestyle, infections and environmental pollutants. Therefore, many of cancers are preventable through changing risk factors [3]. In terms of the view of molecular and cellular biology, cancer is associated with a number of illnesses which are occurred as a result of similar molecular defects

in cell activities and cause changes in cellular genes. In fact, cancer is the resultant of unnatural genetic expression [4]. Cancer is one of the most ancient illnesses diagnosed by human and with recent advances in science and technology, instead of being an irreparable and fatal illness, cancer has become a chronic disease [5]. This illness is a global problem and in developed countries it is considered to be the second prevalent cause of fatalities. In addition, in terms of developing countries it is the fourth and for Iran it is the second prevalent cause of fatalities. In this regard, among every four people, one will develop cancer during his or her lifespan [6]. Published statistics by global health organization indicates that annually, more than 12.3 millions of people develop various types of cancer and more than 7.6 million of these people lose their lives as a result of this illness. In addition, it has been anticipated that by the year 2030, the rate of occurrence of cancer will reach 75 million people and in this case, 27 million people will develop cancer annually [6 and 5]. In this case, we will witness 70000 new cases of cancer in Iran and among these people, more than 35000 people will lose their lives annually [6 and 7].

Although that the cause of most types of cancer is repeated cellular mutations, but most mutations are resulted by interacting with environment. In this regard, more than half of cancers are preventable. Among cancer control and prevention methods it can be referred to primary prevention and secondary prevention [8]. The purpose of primary prevention is to increase individuals' awareness regarding cancerous factors and by secondary prevention, we generally refer to screening. Prevention of facing cancerous factors and weakening their presence in our lives will reduce the risk of infection with this illness; on the other hand by recognizing symptoms of cancer, an effective step can be taken towards prevention of cancer or progression of cancer to higher stages in case of occurrence [9 and 10]. Regarding prevention and symptoms of cancer which are required to be known by public it can be said that these symptoms include changes in urination and defecation habits, wounds that don't easily heal, unnatural bleeding, feeling hardness and emergence of cumulus, digestion problems, changes in moles and warts, dry coughs and harshness of voice in addition to rapid weight losing [11]. Timely diagnosis of cancer can reduce fatality and in this regard, the role and importance of awareness about seven symptoms of cancer should be pointed out [12].

Several studies have globally been concerned with estimation of the ratio of total fatalities resulted by cancer which are related to various risk factors, However in general, studies regarding level of public's awareness from seven symptoms of cancer in national and international contexts are rare [13 and 14]. Not unlike other developing countries, there have been few studies regarding evaluation of public awareness about symptoms and effective factors of cancer in Iran. Even these few studies have only been carried out among patients and special types of cancer [21 and 15].

Before any educational and health planning, especially regarding prevention of chronic diseases such as cancer, familiarization with public's awareness about symptoms and effective elements on development of this illness seems necessary. In this regard, evaluating teachers' level of awareness about symptoms of cancer and determination of effective factors on it can have a beneficial role in proper orientation of health plans especially in the domain of education with the aim of control and prevention through the society. Therefore, this research is aimed at determination of level of awareness about seven symptoms of cancer and its effective factors among female teachers of the city of Abadan in 2014-15.

MATERIALS AND METHODS

This research is a descriptive-analytic study which included 270 female teachers of high-schools of the city of Abadan who were selected through a census method. Data collection instruments were researcher made questionnaires that included: 1) information forms containing personal information of participants (Age, experience, field of study and family records regarding occurrence of cancer); 2) a questionnaire including 9 questions in the context of awareness about symptoms of cancer. Scientific validity of data collection instruments was determined through content validity method; for this purpose, first by studying scientific texts including previously done similar researches, the instruments were prepared and after that, questionnaires were distributed among ten individuals among the faculty members of nursing college, a blood expert and two experts of food chemistry. After collection the questionnaires back, the suggestions of these people were practiced and by this end, the final questionnaire was prepared. In addition, for determining the reliability of data collection instruments, the Cronbach's alpha coefficient was calculated. For this reason, a number of 100 questionnaires were distributed among the citizens of five different districts and among seven families in each district. The resulting reliability was calculated as 85 percent [14]. After being granted with permission from Abadan's department of education, the researcher referred to girls' high-schools and distributed the final questionnaires among female teachers. After distribution of questionnaires, they were collected back without mentioning of the names of participants. Ultimately, the data were analyzed by the software of SPSS 17.0. Also for the purpose of

analysis of data, the value of questions was considered to be similar and respectively, questions were scored according to their value and the maximum score was selected as 100. In this regard, the level of 80-100% was considered as desirable, 60-79.9% was considered as relatively desirable and 0-59.9% was considered as undesirable [14]. The resulting data were analyzed through descriptive static and statistical tests consist of Mann-Whitney, Kruskal-Wallis, Spearman's correlation and Chi square.

RESULTS

In this study, almost 81 percent of distributed questionnaires were collected back and according to this number, information regarding 220 individuals were analyzed. The average age of participants was 38.36+-5.42. Also in terms of experience, participant's average experience was 13.81+-7.26. Results of this study have shown that studied participants' level of awareness regarding seven symptoms of cancer is as follows: 8.6% (19 people) in undesirable state, 36.8% (81 people) in relatively desirable state and 54.6% (120 people) in desirable state (table1).

Table1. Frequency and the relative frequency of female teachers according to field of study, family records and awareness about symptoms of cancer

Variable	number	Percentage
Field of study		
Mathematics	36	16.4
Natural sciences	50	22.7
Humanities	134	60.9
Family records of cancer		
Yes	57	25.9
No	163	74/1
Level of awareness		
Undesirable	19	8.6
Relatively desirable	81	36.8
Desirable	120	54.6
Total	220	100

Another result of this research is the relation between teachers' level of awareness about seven symptoms of cancer and demographic variables of the participants. In this context, it is worth mentioning that by the use of Spearman's correlation coefficient between the variable of age and teachers' level of awareness the value of $R = -0.02$ was concluded and with respect to P value of 0.7, there were no significant relations between age and level of awareness of participants regarding seven symptoms of cancer. On the other hand, the relation between awareness of participants and their experience was statistically significant. In other words, as teachers' experience was increased, their awareness about symptoms of cancer also moved towards desirable state and vice versa. Another independent variable that was found to be statistically significant was the family records of cancer (P value= 0.008; Chi Square= 0.01). People who had pointed a family record of cancer had a higher level of awareness. Also by the use of Chi-Square test, it was turned out that there were no significant relations between teachers' level of awareness and their field of study (P value= 0.14; Chi-Square= 6.79) (table2).

Table2. Relative frequency of female teachers knowledge about symptoms of cancer based on field of study

Field of study	Level of awareness (%)		
	Undesirable	Relatively desirable	Desirable
Mathematics	8.3	38.9	52.8
Natural sciences	0	42	58
Humanities	11.9	34.3	53.7

DISCUSSION

The purpose of this research was to discuss the level of awareness about seven symptoms of cancer and their effective factors among female teachers of High-schools of the city of Abadan in 2014-15. In addition, this research has studied the relation between teachers' awareness about symptoms of cancer and their age, experience and family records of cancer. Findings of the research indicated that there were no significant relations between the variables of age and levels of teachers' awareness about symptoms of cancer (P= 0.7). In this regard, we can refer to results of the study undertaken by LariZadeh et al. (2008) in which, the researchers did not find any significant relations between age and levels of awareness (P=

0.5). these results are in consistence with the obtained results of the present research, but the research of Ramezani *et al.* which aimed to analyze Iranian women's awareness and operations regarding cervical cancer, undertaken in 1999 showed that there the people's age had significant statistical relation with their awareness of this cancer ($p < 0/05$) (8), Also Eun *et al.* [22] in a research titled older women's belief in screening to diagnose breast cancer, showed that with age increasing, the tendency to be aware of cancer's risk factors and the ways of its early diagnosis and the tendency to cure it intensify. The results of these two researches are different from the present research's results regarding the relation between the age variable's role and awareness of the cancer symptoms. The reason of this issue may be found in the research of Jamali *et al.* [9] which says although it is possible that the relation between the age variable and awareness of cancer symptoms is statistically significant, but this variable's role in categorizing people in awareness levels is not significant ($p = 0/73$).

The other variable which was studied in this research was the teaching record which shows the relation between years of experience in teaching and teacher's level of awareness regarding symptoms of cancer is statistically significant ($P = 0.02$). On the other hand, there was no significant relation discovered among teacher's field of study and their level of awareness about symptoms of cancer ($P = 0.14$). The other variable was the record of cancer in family which studied the relation between having a cancer record among family and teacher's level of awareness regarding symptoms of cancer. This variables was found to be significant in terms of statistics ($P = 0.008$). This conclusion is in consistence with results of most previous researches [23 and 24].

Findings of the present research have shown that the level of awareness of 54.47% of the teachers was in unsuitable and relatively suitable states and also the same variable was in a suitable for 54/5% of teachers. In this regard, results of the research carried out by Jamali *et al.* which was aimed at discussing the level of awareness about symptoms of cancer among the people of Tehran, indicate that the awareness of almost two thirds of the entire population of Tehran was in an unsuitable state [9]. On the other hand, Zolfaqari *et al.* [14] have carried out a research titles as "awareness about symptoms of cancer among older than 18years population of Tehran and undertaking precautionary acts against cancer. Their research work led them to the conclusion that only less than 9 percent of studied population were in a suitable state of awareness about symptoms of cancer. Furthermore, results of research, conducted by Abed Zadeh *et al.* [25] indicated that awareness about breast cancer among women of Kashan, was in a weak state among 43 percent of them and the remaining 57 percent had average and good awareness about this context. On this basis, it is necessary to take the steps that are required for primary and secondary preventions in order to reduce the fatality rates of this illness through timely diagnosis; yet the perquisite of this is making people aware about symptoms of cancer. In contrast, Write and Maree have carried out a study and shown that there are no sufficient relations among perception of cancer, awareness about symptoms of cancer and primary and secondary preventions and being aware of symptoms of cancer does no help to early diagnosis of cancer [26]. In addition, in a research carried out by Yavari *et al.* (2006) [27]. Their research was titled as awareness of performance of women about Breast Self-Evaluation (BSE) and by this study; they have reported that more than 75% of both the control and experimental groups had no regular check-ups with a physician for early diagnosis of breast cancer. The major cause for this issue was firstly reported to be lack of awareness.

Among the restrictions of the present research it can be referred to limited sample size and the subjects of study (Teachers) that might not be perfectly adjustable with entire Iranian women. It is imagined that knowledge regarding the illness is an effective element on participation of people in cancer screening programs.

CONCLUSION

According to similar studies also considering this important point that people's knowledge affects their attitudes and their attitudes affect their actions positively, it can be concluded that people's attitudes and actions regarding the prevention of cancer can be improved by studying their awareness levels and using educational guidelines. Considering the sensitivity of teaching profession, teachers' involvement in educating the future women and mothers and the of improving women's awareness, providing training classes and workshops as in service periods by the ministry of education for the teachers, also using training guidelines about preventing cancer and identifying its symptoms for the public by hygienic personnel, mass media and different organizations is recommended.

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