

ATTITUDE, BEHAVIOUR AND AWARENESS OF TURKISH WOMEN CONCERNING BREAST CANCER*

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ABSTRACT

Objective: Over half a million women develop breast cancer every year. Despite rising incidence, survival rates can be increased by public health efforts to promote routine self-examination and regular mammograms in order to detect cancer at an early stage.

The objective of this study is to determine women's awareness, practice and attitudes towards breast cancer and to be a guide for education programmes aimed at making women more informed and enabling them to act with more knowledge.

Method: Questionnaires, composed of 26 questions, were conducted among 375 women living in different areas of Istanbul. Each completed questionnaire was analysed and graded according to participant's level of information concerning breast cancer.

Results: The level of information has a direct relationship with age, education and family income. Those with a good level of information

were found to be: 57,6% of women above 51 years of age; 60% of all women who stated an income of above one billion TL, and; 62,2% of women graduated from a university.

Conclusion: Health education on breast cancer should be provided especially to those with a poor level of information.

Key Words: Breast cancer, Awareness, Attitude, Practice.

INTRODUCTION

Breast cancer is the most common form of cancer diagnosed in women (1). Over half a million women develop breast cancer each year (2). Lifetime risk (0-75 years) of developing breast cancer is 9,2% (1 in 11 women) and the risk of dying from breast cancer is 2,2% (1 in 45 women) according to epidemiological data in Western countries (1). The incidence of breast cancer is increasing in both industrialised and developing countries, with rates in urban areas

* Partly presented in the 1st Congress of World Society for Breast Health, held in Istanbul, Turkey, 22-26 September 2001.

generally exceeding those in rural areas (3). According to the Izmir Cancer Registry, in women, breast cancer was by far the most common malignancy (incidence rate 24.4/100,000) (4). Despite the increasing incidence, mortality rates are decreasing primarily due to treatment, as well as increased breast cancer awareness and screening (5).

The fact that survival rates are substantially lower in women with advanced breast cancer than in women whose disease is diagnosed at earlier stages (6), implies the importance of early detection methods. Mammography can help to differentiate a benign from a malignant process before it becomes palpable and when it is most curable. Thus, mammography remains the most effective imaging method (7). In addition to mammographic screening, monthly breast self-examination decreases mortality from breast cancer (8).

Approximately half of the women who developed breast cancer had no identifiable risk factors, indicating that strategies for prevention of the disease should be directed at the entire population (9).

This study was conducted among women with different socio-demographic characteristics in order to determine their knowledge about early detection methods, breast cancer symptoms, risk factors; plus attitudes and behaviour – all of which are very important factors for overcoming this disease. The aim was to be a guide for health education programmes and other public services for improving the knowledge and practice in women in order to decrease mortality rates due to breast cancer rates.

MATERIALS AND METHODS

The study was conducted as a cross-sectional survey among females chosen randomly. The survey was designed to investigate the socio-demographic background of the respondents and their level of knowledge, behaviour and attitudes concerning breast cancer.

A self-administered questionnaire of 26 questions - including socio-demographic questions about age, marital status, occupation, level of education, presence of social insurance,

and family income - was used as the survey instrument. The questionnaire included 20 questions, ranging from those about the symptoms and risk factors of breast cancer, methods of diagnosis and treatment; to the practice of self-breast examination, respondents' attitudes and behaviour towards breast cancer. The last two questions were open-ended contrary to the others, and aimed at gathering information regarding anxiety about treatment, and any three subjects that they would like to learn about breast cancer.

The questionnaires were conducted between 7th April 2001 and 7th May 2001. Respondents were from different socio-demographic groups including: Members of a Non-Governmental Organization (NGO) "Çağdaş Yaşamı Destekleme Derneği"(ÇYDD); women living in a shanty town centre supported by ÇYDD; mothers of some students studying in phase 1-2-3 of Marmara University School of Medicine and some civil servants working at Haydarpaşa Campus of Marmara University. In order to educate the participants, all respondents were given a brochure (prepared by Marmara University Hospital, Department of Radiology) consisting of general information about breast cancer.

Each completed questionnaire was graded and classified as poor (0-24%), fair (25-49%), good (50-74%) and very good (75-100%) according to the respondents' knowledge about the symptoms of breast cancer, methods of diagnosis and treatment, breast self-examination and risk factors for breast cancer. A maximum of 28 points could be obtained on the knowledge. For cross tables the questionnaire was graded in two sections instead of four, as poor (0-49%) and good (50-100%). 'SPSS 10.0 for Windows' was used to analyse the data and to prepare graphs, frequency tables and cross tables.

RESULTS

Population characteristics

Three hundred and seventy five women returned the questionnaire. The mean age of the respondents was 42.6 ± 11.6 years. 48% of women were 36-50, 28% were 19-35 years old and 24% were above the age of 51. Regarding their educational status, 31,4% of women had received no education, or graduated from

primary or secondary school; whereas 30% were high school and 33,8% were university graduates. Eighty-two women (22,2%) had no social insurance. Among 254 women who answered the related question 137 (53,9%) had an income below six hundred million TL, and the rest had higher incomes.

Knowledge

When classified according to our pre-formed scale; 230 women (61,3%) had a satisfactory or more than satisfactory knowledge level, while 145 women (38,7%) had a less than satisfactory knowledge level.

One out of four women defined cancer as a non-treatable disease. 239 women (67,5%) knew that breast cancer was the most frequently seen cancer in women, while 108 (30,5%) defined breast cancer as uterine cancer. 85,8% of women correctly answered that the 40-59 age interval has an increased risk for developing breast cancer.

Knowledge about other risk factors associated with breast cancer was generally poor. Stress, alcohol intake, cigarette smoking and nulliparity were commonly known as risk factors for breast cancer (Table I). In order to increase the reliability of the answers, two unrelated risk factors were introduced in the list.

Table II shows the respondents' knowledge about breast cancer symptoms. Less than half

Table I: Knowledge of Risk Factors for Breast Cancer

Factors	n	%*
Stress	237	63,2
History of alcohol and cigarette	175	46,7
Nulliparity	158	42,1
Estrogen replacement therapy after menopause	131	34,9
Colon, ovarian or uterine cancer	85	22,7
Late menopause (>50)	70	18,7
Nutrition	65	17,3
Late conception of their first child	43	11,5
Early menarche (<12)	41	10,9
Cardiovascular diseases	13	3,5
Diabetes Mellitus	12	3,2

* Women were asked to give more than one risk factor

of the study group knew the symptoms correctly. Same procedure explained above was repeated here to increase the reliability.

Only 33% of women possessed sufficient knowledge about breast self-examination. 78% of women did not know when to perform breast self-examination (Table III).

High school or university graduates, a high income and advanced age were factors behind a higher level of knowledge (Table IV). Interestingly, there was no significant relationship between the level of knowledge and presence of any relative with breast cancer ($p=0,434;x^2 =0,828$).

Information regarding breast cancer was obtained from media, their physicians, and through "mouth-to-mouth" in 76%, 39% and 23% of women, respectively.

Practice

Sixty-seven point three percent of the women (59.4% of women with poor knowledge and

Table II: Knowledge of Symptoms of Breast Cancer

Symptoms	n	%*
Breast lump	336	89,6
Swollen lymph nodes in the axilla	271	72,3
Abnormal nipple discharge	209	55,7
Change in the shape of nipples	170	45,3
Change in the color of the skin of the breast, areola, or nipple	116	30,9
Thickening in the breast skin	82	21,9
Heart disorders	11	2,9
Dyspnea	11	2,9

* Women were asked to give more than one symptom

Table III: Level of Knowledge of Breast Self-Examination

"Which of the following is correct about BSE?"	%	n
Axilla should also be examined	248	71,5
Performed in front of a mirror	189	54,5
Symmetrically performed	142	40,9
Not performed in the first days of period	76	21,9
Heard but no idea	40	11,6
Annually examined	21	6,1
Performed only with inspection	7	2

82.7% of women with good knowledge) reported that they performed breast self-examination; but only 42% of them knew how to do it properly. "Having relatives with breast cancer" did not affect the rate of breast self-examination practice ($p=0,051; \chi^2 =4,069$).

Thirty-eight point nine percent of the women (20% of women with poor knowledge and 50% of women with good knowledge) had had mammographies at least once in the past.

Respondents who underwent mammographic examination were those who thought their probability of having breast cancer was high, who are older, and better educated. However, there was no significant relationship between having mammography and "having relatives with breast cancer" ($p=0,48; \chi^2 =4,449$, and family income $p=0,42; \chi^2 =4,219$) (Table IV).

Thirty-six percent of women were not aware of mammography, as the tool for diagnosis and

37% did not know that having regular mammography after a certain age is strongly advised for early diagnosis. 63% of the women had mammography as a result of recommendation by their physician and 30% because they requested it themselves.

Approximately 50% of the women who had insurance from Governmental Insurance Organization for civil servants, Governmental Insurance Organization for artisans or private insurance had mammography, while it decreased to 36% in workers with insurance from the government and to 18% who had no insurance.

Attitude

When their attitude towards breast cancer was asked, 40% of the women with poor knowledge and 16% of women with good knowledge said they never thought about it. Half of the women were afraid of the treatment for breast cancer.

The rate of performing breast self-examination and having mammography increases in women

Table IV: Comparisons of knowledge and mammography screening among different groups

		education				family income				age						presence of relatives with breast cancer			
		secondary school and below		high school and higher		599 millionTL and below		600 millionTL and higher		19-35		36-50		51 and older		Yes		No	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Knowledge	good	55	42	173	71,5	79	57,7	92	78,6	41	41,4	120	69,4	61	71,8	51	65,4	175	59,7
	poor	76	58	69	28,5	58	42,3	25	21,4	58	58,6	53	30,6	24	28,2	27	34,6	118	40,3
Mmg. Screen	yes	36	28,6	104	43,9	51	38,3	60	51,3	10	10,4	77	45,6	52	62,7	38	49,4	103	36
	no	90	71,4	133	56,1	82	61,7	57	48,7	86	89,6	92	54,4	31	37,3	39	50,6	182	64

Table V: "Three subjects to be informed"

	n	%
Treatment	119	35,4
General information	63	18,8
Etiology	58	17,3
Diagnosis	58	17,3
Prevention	36	10,7
Genetic relation	28	8,3
Symptoms	27	8
Breast self-examination	24	7,1
Mammography	17	5,1
Others	70	20,1

who think they have a possibility of having cancer. Answers for "What frightens you the most about the therapy?" were chemotherapy, mastectomy, being late for the treatment, operation itself and unsuccessful treatment in 25%, 20%, 13%, 12% and 12% of patients, respectively. 18% said "others" including "everything about the therapy", "even its name", economic problems, adverse affects, absence of psychological therapy, to be in need of help, to die, etc.

Table V includes the details of respondents' request for having more information about any three subjects regarding breast cancer.

DISCUSSION

The objective of this study was to determine knowledge, attitude and awareness of women towards breast cancer. Approximately 60% of women had good knowledge. But we must admit that there might have been methodological mistakes while grading. Knowledge and practice increase with age. This result may be due to the high education levels of the elderly, but when education level and age were compared, no significant relationship was found.

Most women knew that breast cancer is the most common cancer in women, and the age interval with higher risk but knowledge about risk factors, symptoms and breast self-examination was found to be insufficient.

Other than "stress" and "nulliparity", most of the risk factors associated with breast cancer were unknown by half of the women. Especially "late menopause" and "early menarche" were the least known factors, similar to another study (10). Other least known factors include; nutrition, which is a preventable risk factor (11), late conception of their first child and a history of colon, ovarian and uterine cancer.

Most of the women knew that "breast lumps" and "swollen lymph nodes in the axilla" are symptoms of breast cancer but other symptoms were not well known.

Though as many as 67,3% of women reported that they are performing breast self-examination, only 42% of them had sufficient knowledge. This low level of knowledge may be contributory in part to late diagnosis and, in turn, poor prognosis. According to a previous study, 89% of women practicing breast self-examination at the time of diagnosis discovered their tumour by this method (12). Therefore there should be more education programmes about breast self-examination.

Although having mammography increases to 63% in 51 year-old or elder women, in Isparta, in another study 86,3% of the women who should have mammography due to their age had no mammography screening (13). There is no information about mammography proportions among women who should have mammography,

since no attempt was made to estimate the women in risk groups with this study. 63% of the women had mammography due to a physician's recommendation. This result is comparable with another study reporting that one of the strongest predictors of mammography screening is a physician's recommendation, compliance with such recommendation may be complicated by distrust of the medical profession in some patient populations (14-15).

Significant relationship was found between age, education, family income and breast health scores. However, another study documents the reverse where age was not found to be related to knowledge (16).

No significant relationship was found between the presence of breast cancer in relatives and knowledge and practice. Knowledge and behaviour was found to be affected by attitudes suggesting that increasing perceptions of personal vulnerability may increase screening behaviour as similar results found in another study (17).

Strategies should be developed to increase the level of knowledge and utility of screening tools among women, particularly those who are young, have a low level of education and low family incomes. Few women perform breast self-examination properly, therefore education programmes teaching breast self-examination should be organized. The role of media is important since it is the most common source for obtaining information in society.

ACKNOWLEDGEMENTS

We thank Miss Pegah Golabi and Mr. David Thomas for their contribution to this study.

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