Original Article / Orijinal Araştırma

Breast Cancer Awareness Among Women Patients of a Private Hospital: A Cross-Sectional Study on Risk Factors, Symptoms, and Attitudes in Turkey

Özel Bir Hastanenin Kadın Hastaları Arasında Meme Kanseri Farkındalığı: Türkiye'de Risk Faktörleri, Semptomlar ve Tutumlar Üzerine Kesitsel Bir Çalışma

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Abstract

Aim: The global prevalence of breast cancer continues to rise, necessitating heightened awareness, early detection, and effective management strategies. This study aimed to assess differences in breast cancer awareness, risk factors, symptoms, and attitudes among economically well-off female patients in Turkey.

Material and Method: A single-center survey was conducted at a private hospital, involving 189 economically well-off patients who presented to the internal medicine outpatient clinic. Descriptive statistics, Chi-square tests, ANOVA, and Kruskal-Wallis tests were used for data analysis.

Results: Participants had a mean age of 50.2 (21-65) years, with the highest awareness of risk factors and symptoms observed in the 31-50 age group. Marital status and education were associated with breast cancer awareness, risk factors, symptoms, and screening methods. Education level correlated with enhanced knowledge of risk factors and symptoms. The prevalence of breast cancer risk awareness was 41.2%, with the most recognized risk factors being smoking and family history. Palpable lump (36.4%) and redness of breast skin (16.9%) were identified as common symptoms. Screening methods included self-breast examination (12.2%), physician examination (13.2%), ultrasonography (19%), magnetic resonance imaging (15.9%), and mammography (23.3%).

Discussion: Breast cancer remains a critical global health concern, necessitating increased awareness and early detection. In Turkey, breast cancer poses a significant health burden. Socioeconomic factors impact awareness and outcomes, with education and marital status influencing awareness levels. The study highlights the need for tailored interventions and accessible screening programs to enhance awareness and early detection.

Conclusion: This study sheds light on breast cancer awareness and attitudes among economically well-off female patients in Turkey. Education, marital status, and age play pivotal roles in shaping awareness levels. Targeted interventions and education are crucial for improving early detection, reducing mortality rates, and effectively addressing breast cancer.

Keywords: Breast cancer, awareness, risk factors, symptoms, screening methods

Öz

Amaç: Meme kanserinin küresel yaygınlığı artmaya devam etmekte ve bu durum yüksek farkındalık, erken teşhis ve etkili yönetim stratejilerini gerektirmektedir. Bu çalışmanın amacı, Türkiye'deki ekonomik olarak iyi durumda olan kadın hastalar arasında meme kanseri farkındalığı, risk faktörleri, semptomlar ve tutumları arasındaki farkları değerlendirmektir.

Gereç ve Yöntem: Özel bir hastanenin iç hastalıkları polikliniğine başvuran 189 hastada anket yapılmıştır. Veri analizi için tanımlayıcı istatistikler, Ki-kare testleri, ANOVA ve Kruskal-Wallis testleri kullanılmıştır.

Bulgular: Katılımcıların yaş ortalaması 50.2 (21-65) yıl olup, en yüksek risk faktörleri ve semptom farkındalığı 31-50 yaş grubunda gözlemlenmiştir. Medeni durum ve eğitim, meme kanseri farkındalığı, risk faktörleri, semptomlar ve tarama yöntemleri ile ilişkilendirilmiştir. Eğitim düzeyi, risk faktörleri ve semptomlar konusundaki gelişmiş bilgi ile uyumludur. Meme kanseri risk farkındalığı yaygınlığı %41.2'dir ve en çok tanınan risk faktörleri sigara içme ve aile öyküsüdür. Elle hissedilebilir kitle (%36.4) ve meme cildinin kızarması (%16.9) yaygın semptomlar olarak belirlenmiştir. Tarama yöntemleri arasında kendi kendine meme muayenesi (%12.2), doktor muayenesi (%13.2), ultrasonografi (%19), manyetik rezonans görüntüleme (%15.9) ve mamografi (%23.3) yer almaktadır.

Tartışma: Meme kanseri, artan farkındalık ve erken teşhis gerektiren önemli bir küresel sağlık sorunudur. Türkiye'de meme kanseri önemli bir sağlık yükü oluşturur. Sosyoekonomik faktörler, farkındalık düzeylerini belirleyip sonuçları etkilerken, eğitim ve medeni durum ise bu farkındalık düzeylerini şekillendiren etkenler arasında yer alır. Çalışma, farkındalığı artırmak ve erken teşhisi sağlamak için özelleştirilmiş müdahalelere ve erişilebilir tarama programlarına ihtiyaç olduğunu vurgular.

Sonuç: Bu çalışma, Türkiye'deki ekonomik olarak iyi durumda olan kadın hastalar arasında meme kanseri farkındalığı ve tutumlarına ışık tutmaktadır. Eğitim, medeni durum ve yaş, farkındalık düzeylerini şekillendirmede önemli roller oynamaktadır. Hedefe yönelik müdahaleler ve eğitim, erken teşhisi artırmak, mortalite oranlarını düşürmek ve meme kanseriyle etkili bir şekilde başa çıkmak için hayati öneme sahiptir.

Anahtar Kelimeler: Meme kanseri, farkındalık, risk faktörleri, semptomlar, tarama yöntemleri

INTRODUCTION

According to the latest GLOBOCAN 2020 data obtained from 185 countries by the International Agency for Research on Cancer (IARC), an estimated 19.3 million new cancer cases (excluding non-melanoma skin cancer, which is 18.1 million) and approximately 10.0 million cancer-related deaths (excluding non-melanoma skin cancer, which is 9.9 million) occurred worldwide. Female breast cancer, with an estimated 2.3 million new cases (11.7%), has surpassed lung cancer as the most commonly diagnosed cancer.[1]

In Turkey, 24.175 women were diagnosed with breast cancer in 2020, making it the most common cancer in women. 7.161 women lost their lives due to breast cancer, accounting for 15.1% of deaths in women.[1]

The advanced stage of the disease at the time of diagnosis negatively impacts the mortality rate associated with breast cancer. Economic income, education, family support, and access to healthcare are related to early diagnosis and mortality of breast cancer.[2]

In developed countries, modified lifestyles, delayed marriage age, late first childbirth, working late into the night, and hormone replacement therapy are major risk factors for breast cancer development. In developing countries, the leading causes of high breast cancer incidence and mortality are inadequate awareness or knowledge about the disease, inappropriate screening programs, delayed diagnosis, and inadequate medical facilities.[3]

Awareness of breast cancer symptoms among women is crucial for early diagnosis. In a study conducted in the Czech Republic, it was found that the delay in seeking medical attention despite the development of symptoms was due to patients not being aware of the symptoms of breast cancer and the symptoms not being taken seriously.[4]

The aim of this study is to investigate the differences and attitudes of economically well-off female patients in Turkey regarding breast cancer risk factors, symptoms, and awareness.

MATERIAL AND METHOD

In this single-center survey conducted at a private hospital, a survey measuring breast cancer awareness was conducted on 189 economically well-off patients who presented to the internal medicine outpatient clinic.

This study was approved by the Mediterranean University Faculty of Medicine Ethics Committee with the decision dated 23.08.2023 and numbered 677.

Sample Size Calculation

A sample size calculation was performed to obtain reliable results and ensure accurate representation of the population. The calculation of the sample size is based on the study's objective, the population size, the statistical confidence level, the margin of error, and the population's variability.

A response rate of 80% was estimated, and 200 patients were planned to be invited to participate in the study. Patients who agreed to participate in the survey and provided informed consent were invited to join the study. They were requested to answer the questions honestly.

Statistics

The data were transferred to IBM SPSS version 26 (IBM Inc, Chicago, IL, USA) for evaluation through statistical analyses. Prior to conducting statistical analyses, checks were performed to ensure the absence of data entry errors and whether parameters were within the expected range. Descriptive statistics of mean and standard deviation were presented for continuous variables, while for categorical variables, the number (n) and percentage (%) values were provided. The relationship between categorical variables was examined using the Chi-square test. For independent groups, ANOVA was conducted for variables showing a normal distribution to determine statistically significant differences in means. For variables not showing a normal distribution, the Kruskal-Wallis test was employed. Values of $p < 0.05$ were considered statistically significant.

RESULTS

A total of 189 individuals were included in the study to assess breast cancer awareness. The participants had a mean age of 50.2±12.1 years (ranging from 21 to 65). Among the participants, 153 (81%) were married, and 36 (19%) were single. Demographic data of the participants are summarized in **Table 1**.

Table 1: Demographic characteristics of patients		
	n	**%**
Age Range		
18-30	22	11.6
31-50	43	22.8
51-65	124	65.6
Marital Status		
Married	153	81
Single	36	19
Education Level		
Primary school	21	11.1
High school	87	42.9
University	81	46
Comorbid Disease		
Present	107	56.6
Absent	82	43.4
Chronic Disease		
Diabetes mellitus	51	47.7
Coronary artery disease	28	26.2
Chronic obstructive lung disease	28	26.1
Family history of cancer		
Present	46	24.3
Absent	143	75.7
Smoking history		
Smoker	81	42.9
Non-smoker	108	57.1

The answers to questions about Breast Cancer Risk Factors and Symptoms are presented in **Table 2**.

Table 2: Breast Cancer Risk Factors and Symptoms		
	n	%
Breast Cancer Risk Awareness		
Present	78	41.2
Absent	111	59.8
What Are Breast Cancer Risk Factors?		
Early menstruation	10	5.3
Late menopause	13	6.9
Hormone therapy	22	11.6
Nulliparity	27	14.3
Oral contraceptive use	12	6.3
Family history	16	8.5
Alcohol consumption	8	4.2
Smoking	41	21.7
I don't know	40	21.2
What Are Breast Cancer Symptoms?		
Palpable lump	69	36.4
Redness of breast skin	32	16.9
Breast pain	38	20.1
Nipple discharge	30	15.9
I don't know	20	10.7

The answers to questions regarding breast cancer screening methods are displayed in **Table 3**.

Table 3: Breast Cancer Screening Methods		
	n	%
Have You Had Breast Examination?		
Yes	76	40.2
No	113	59.8
What arte the Breast Cancer Screening Methods		
Self-breast examination	23	12.2
Physician examination	25	13.2
Ultrasonography	36	19
Magnetic Resonance Imaging (MRI)	30	15.9
Mammography	44	23.3
I don't know	31	16.4

Greater awareness of risk factors was observed among married individuals, and statistically significant relationships were found between marital status and breast cancer risk factors, symptoms, and screening methods (p <0.05). A significant association was observed between education level and breast cancer risk factors, as well as symptoms (p <0.05). The highest awareness of breast cancer risk factors and symptoms was found in the 31-50 age group, and this association was statistically significant (p <0.05).

DISCUSSION

Breast cancer is a significant global health concern, as evidenced by the GLOBOCAN 2020 data from the International Agency for Research on Cancer (IARC). The prevalence of new cases and cancer-related deaths is alarming, emphasizing the need for heightened awareness, early detection, and effective management strategies. In this context, our study aimed to investigate the differences in breast cancer awareness, risk factors, symptoms, and attitudes among economically well-off female patients in Turkey.

The prevalence of breast cancer remains a critical issue worldwide, with the latest GLOBOCAN 2020 data estimating over 2.3 million new cases globally. This alarming figure places breast cancer as the most frequently diagnosed cancer among women, surpassing even lung cancer. These statistics underscore the importance of continuous efforts to raise awareness and implement effective preventive measures.

In Turkey, breast cancer constitutes a significant health burden. The 2020 data revealed that breast cancer was the most common cancer diagnosed among women, with 24.175 cases reported. Furthermore, the mortality rate associated with breast cancer was substantial, causing the deaths of 7.161 women. These figures reflect the urgent need for improved awareness, early detection, and targeted interventions to address the challenges posed by breast cancer in Turkey.

The impact of socioeconomic factors on breast cancer awareness and outcomes is well-documented. Our study focused on economically well-off female patients, allowing for a unique insight into the differences and attitudes within this specific demographic.

Economic challenges can affect people's access to healthcare services and participation in screening programs. Breast cancer screening and treatment services can sometimes be costly. In a globally conducted meta-analysis, especially in developing countries, breast cancer awareness has been found to be low.[5]

In a case-control study conducted in China, it was found that 80% of the participants had very low awareness of breast cancer. The study also revealed that risk factors, particularly family history, were prominent. Additionally, nearly half of the participants were aware that a lump in the breast could be a symptom of breast cancer.[6] In a cross-sectional study conducted in Jordan, the rate of patients seeking healthcare facilities late is 32.2%. The primary reasons for this delayed presentation are patients' insufficient awareness of breast cancer symptoms and negligence.[7] In a cross-sectional study conducted among female university students in Malaysia, it was observed that a majority of the students were not aware of breast cancer risks, and less than 50% practiced self-examination of the breast.[8] A study conducted in India found that breast cancer awareness is associated with education and socioeconomic status.[9] In a study conducted in Iran, it was found that individuals with higher education levels and those with a family history of cancer have higher breast cancer awareness.[10] In a study conducted on perimenopausal patients, breast cancer awareness was not found to be associated with age and socioeconomic status. However, differences were observed based on the place of residence, whether rural or urban.[11] A study conducted among medical faculty students revealed that 55% of the students lacked

sufficient knowledge about breast cancer.[12] In a study conducted on newly diagnosed breast cancer patients, most of the patients indicated that a lump in the breast could be a symptom of breast cancer. Forty-four percent (44%) emphasized the importance of self-examination of the breast for early detection of breast cancer.[13]

The findings revealed noteworthy associations between marital status, education level, and breast cancer awareness. Married individuals exhibited greater awareness of risk factors, aligning with previous research that highlights the role of family support in health awareness.

Education also emerged as a significant factor influencing breast cancer awareness. Patients with higher education levels demonstrated enhanced knowledge of risk factors and symptoms. This finding underscores the importance of education as a key determinant of health literacy, which can empower individuals to engage in proactive health-seeking behaviors.

Our study also illuminated the distribution of breast cancer awareness across different age groups. Notably, the highest awareness of risk factors and symptoms was observed in the 31-50 age range. This finding underscores the critical role of targeted educational campaigns that cater to varying age groups. Tailored interventions can contribute to maximizing awareness and early detection, ultimately improving patient outcomes.

However, our study has some limitations. The sample size, while sufficient for our analysis, may not fully capture the diversity within the economically well-off population. Additionally, self-reported data could introduce response bias, and further qualitative research might provide deeper insights into the attitudes and perceptions of these patients.

CONCLUSION

Breast cancer remains a global health challenge, and our study contributes to the understanding of breast cancer awareness and attitudes among economically well-off female patients in Turkey. The findings underscore the significance of marital status, education, and age in shaping awareness levels. Strategic interventions that focus on education, tailored awareness campaigns, and accessible screening programs are pivotal in improving early detection, reducing mortality rates, and ultimately combating breast cancer on a broader scale.

ETHICAL DECLARATIONS

Ethics Committee Approval: The study was approved by Mediterranean University Faculty of Medicine Ethics Committee (Date: 23.08.2023, Decision no: 677).

Informed Consent: All patients signed the free and informed consent form.

Referee Evaluation Process: Externally peer-reviewed.

Conflict of Interest Statement: The authors have no conflicts of interest to declare.

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