

Original Article

Determining the Cultural Beliefs of Working Women toward Breast Cancer

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Abstract

Background: The presence of cultural beliefs of women against breast cancer may lead to delays in application to health institutions, diagnosis and treatment. Nurses have important roles in preventing these delays, educating women and ensuring participation in cancer screening programmes.

Aim: The aim of this study was to assess the cultural beliefs of working women towards breast cancer.

Methods: In the descriptive study collected data using the Individual Diagnosis Form and the Ferrans Cultural Beliefs Scale. There are three areas that the scale focuses on: beliefs of women about breast cancer, barriers that have an impact on their attendance at breast cancer screening, and beliefs about the effectiveness of breast cancer therapy.

Results: The study included a sample of 245 women. The mean age of the participants was 39.17 ± 9.59 years (min=22; max=68), with a mean of 12.79 ± 10.08 years (min=1; max=45) and a mean of 8.27 ± 1.32 (min=3; max=14) hours of work per day, and 72.2% of them were academic staff. of these, 93.5% had cultural beliefs of 2 and below, and 6.5% had cultural beliefs of 3 and above. No statistical significance was found between the score on Ferrans Cultural Belief Scale and women's age, working hours, and daily working hours.

Conclusions: Individuals' decisions about their health practices and behaviours are influenced by cultural beliefs and perceptions. The majority of participants were found to have no cultural beliefs. Women's knowledge about breast cancer decreases cultural beliefs against breast cancer.

Keywords: Beliefs, Breast cancer, Culture, Cancer Screening Programs

Background

Breast cancer (BC) is a global health problem that frequently affects women. By 2030, it is estimated that approximately 22 million people will be diagnosed with BC annually (Siegel et al., 2023). According to the Ministry of Health, BC is the most frequent cancer in Turkish women. The incidence rate of BC is 48.6 per 100,000 in 2018 and is in first place. Today, one in four women with cancer detection is BC (Turkish Cancer Statistics, 2018).

Increasing BC awareness in the community and implementing organized community-

based screening programs reduce mortality by providing an opportunity for earlier diagnosis and the chance to perform surgery to preserve the breast. With early diagnosis, women's body image integrity can be protected, and live a healthy and long life (Molassiotis et al., 2021). The World Health Organisation reports that the rate of cancer diagnosed late can be reduced through improvements in many areas, including the effectiveness and accessibility of early diagnosis and treatment services and public awareness (World Health Organization, 2020a).

Early detection of BC is the most efficacious intervention to maintain and improve health and reduce morbidity and mortality (Aydiner et al., 2019). Regular screening, including breast self-exams (BSE), clinical breast exams (CBE), and mammograms, are essential to improve survival and reduce mortality (Kwok et al., 2012). As BC is mostly detected by women themselves, women need to be aware of any changes in their breasts (Akarsu & Andsoy, 2022). Early diagnosis in the early stages ensures more accessible BC treatment and higher chances of success. Thus, early detection before the onset of BC symptoms is very important (Ginsburg et al., 2020).

Culture influences individuals' views on diseases, health beliefs, and preventive behaviors. Evaluating the influence of cultural beliefs on health screening behavior is highly important to increase rates of screening for BC in women (Hwang et al., 2017). Cancer is a cultural phenomenon with a higher likelihood of shaping an individual's views on diseases, health problems, and preventative measures (Elewonibi & Belue, 2019). Barriers such as lack of knowledge about cancer symptoms, difficulties in access to diagnosis and treatment, and/or lack of public awareness of cancer can reduce patients' chances of being diagnosed and treated promptly. The main aim of screening programmes is to reduce the prevalence of these barriers (World Health Organization, 2020b). Personal beliefs are reported to be directly influenced by cultural values, which are often reflected in health-seeking behaviour (Sarmah et al., 2023). There is some evidence in the literature that cancer diagnosis may be earlier in women who have low levels of cultural beliefs. (Kuzhan & Adli, 2015). Therefore, this research aims to determine working women's cultural beliefs, providing insights into their attitudes and behaviors associated with BC.

Methods

Designing, setting and sampling: Female employees (N=382) working in academic and administrative positions at a foundation university in Istanbul were selected for this descriptive, cross-sectional study. Women aged 20 and over who agreed to take part in

the research between 2 January and 30 April 2023 and completed the surveys in full were finally included in the sample. While the goal was to reach the entire group without selecting a sample, the study was concluded with 245 female employees, 98 female employees on leave, and 39 who declined to participate in the research due to work intensity not being included (response rate 64%).

Data collection instruments: The Individual Information Form and the Ferrans Cultural Beliefs Scale were used for data collection.

Individual Identification Form: This form questioned women about their age, education, work experience, BC history in the family, and their practices of performing breast self-examinations and undergoing mammography.

The Ferrans Cultural Beliefs Scale: The Ferrans Cultural Beliefs Scale measures the cultural beliefs of Afro-American, Hispanic, and Caucasian women, and was developed by Hasnain et al., in 2014 (Ferrans et al., 2007a; Ferrans et al., 2007b; Hasnain et al., 2014). Tosun et al., (2021) adapted the scale to the Turkish population. The scale focuses on three areas: women's beliefs about BC, Barriers to attending screening, and beliefs about the effectiveness of treatment. Cronbach's alpha for this scale was found at 0.73. It contains 17 item. A 'yes' or 'no' answer can be given to each item. Scoring is dependent on the number of 'yes' responses to each item. Both unanswered questions and 'no' answers are considered as not having endorsed the belief. Item 16 (BC can be cured when treated correctly) is not included in the evaluation. The "yes" responses (1 = yes) to items 1-15 and 17 are summed to give the total score. The possible score range is 0–16. Higher scores indicate a greater number of cultural beliefs.

Variables of the study: The independent variables constituted the introductory characteristics of the female employees participating in the study (age, educational background, work experience, etc.). In contrast, female employees' mean scores from The Ferrans Cultural Beliefs Scale formed the dependent variables.

Data analysis: The SPSS Statistics 24.00 software was used in the data analysis.. The Mann-Whitney U and the Kruskal-Wallis test

were applied to the comparison of categorical variables. Spearman correlation analysis assessed the relationship between the Ferrans cultural belief scores and age, work experience, and daily working hours. $p < 0.05$ was considered significant.

Ethical consideration: Ethical approval for the research was obtained from the Istanbul Kultur University Scientific Research Ethics Board (Date: 14.10.2022, Decision No: 2022/149).

Results

Prevalence of participants' cultural beliefs

The study involved a total of 245 female employees. Their mean age was 39.17 ± 9.59 . The statements provided for the Ferrans Cultural Beliefs Scale are presented in Table 1. In the Ferrans breast Cultural Beliefs Scale, the statements “If a woman is poor, she won’t get cured from cancer, because she won’t get the best treatment ($n=40$)” and “If you take good care of yourself, you won’t get BC ($n=31$)” had the highest levels of belief. No respondents agreed with the statement: “If a woman has enough faith in God, she won’t need treatment for BC”. The statement with the least cultural belief included “If you don’t have BC in your family, you don’t need to get mammograms ($n=1$)”. Of these 93.5% had 2 or less cultural beliefs and 6.5% had 3 or more cultural beliefs (Table 1).

The relationship between some characteristics of the participants and their cultural beliefs The women’s mean age was 39.17 years, and they had worked a mean of

12.79 years and a mean of 8.27 hours per day. No statistically significant correlations were found between the Ferrans Cultural Belief Scale score and age ($r = 0.021$), work hours ($r = .080$), and daily work hours ($r = 0.59$) (Table 2).

Demographic characteristics and cultural beliefs of participants

The comparison of women’s sociodemographic characteristics with their cultural beliefs is presented in Table 3.

A 91.4% of the group had a university-level education or higher, and 72.2% were in academic positions. A family or relative history of BC was also indicated in 20.4% of women., 88.2% were knowledgeable about BC, 35.1% performed monthly breast self-exams, and 44.1% had mammograms. Of the 108 women who had undergone mammography, 25.9% reported doing so annually. Among the 137 women who did not have mammography, 27% ($n=38$) did not feel the need, 10% were not informed about mammography ($n=10$), 10% did not know they needed to get one ($n=10$), 37% mentioned that their doctor did not recommend it ($n=51$), and 20.4% cited other reasons. The study found no statistically significant differences between women’s level of education, their position within the organization, the presence of a family or close relative with a history of BC, their knowledge about breast cancer, their practice of BSE, their mammography status, and their cultural belief scores ($p > 0.05$).

Table 1 Prevalence of Cultural Beliefs of Employed Females

<i>Beliefs</i>	<i>n</i>	<i>%</i>
1. If a breast lump is not painful, it is not cancer	13	5.3
2. If a breast lump does not get bigger, it is not cancer.	18	7.3
3. If a breast lump is touched/pressed often, the lump will turn out to be breast cancer	4	1.6
4. Women with large breasts are more likely to get breast cancer than women with small breasts	15	6.1

5. The more you worry about breast cancer, the more likely you will get it.	21	8.6
6. If you take good care of yourself, you won't get breast cancer	31	12.7
7. Faith in God can protect you from breast cancer	3	1.2
8. You only need to get a mammogram if you find a problem in your breast	19	7.8
9. Mammography can cause breast cancer.	7	2.9
10. If you pray enough, sometimes breast lumps will disappear	2	0.8
11. If breast cancer is cut open in surgery, it will grow faster	6	2.4
12. If you don't have breast cancer in your family, you don't need to get mammograms	1	0.4
13. If you have a breast lump, a "natural" remedy can help to get rid of it	2	0.8
14. If a woman has enough faith in God, she won't need treatment for breast cancer	0	0
15. If a woman is poor, she won't get cured from cancer, because she won't get the best treatment	40	16.3
16. If breast cancer is treated correctly, it can be cured	224	91.4
17. It doesn't really matter if you get treated for breast cancer, because if you get cancer, it will kill you sooner or later	4	1.6
Total scale score Mean±SD= .76±1.080; min= 0, max= 6)		
≤2 beliefs (Mean±SD = 1.39±0.49; min= 1, max= 2)	229	93.5
≥3 beliefs (Mean±SD = 3.63±1.02; min= 3, max= 6)	16	6.5

Table 2 The Relationship Between Cultural Belief Scale Score and Age, Duration of Employment, Daily Working Hours

	<i>Mean±SD, median (Min-Max)</i>	<i>Cultural Belief Scale Score</i>
Age	39.17±9.59, 40 (22-68)	r= .021 p= .739
Working time (years)	12.79±10.08, 10 (1-45)	r= .080 p=.213
Daily working time (hours)	8.27±1.32, 8 (3-14)	r= .059 p=.361

Table 3 Women' Demographic Characteristics and Cultural Beliefs

<i>Characteristics</i>	<i>n (%)</i>	<i>≤2 beliefs</i>	<i>≥3 beliefs</i>	<i>Cultural beliefs</i> <i>Mean±SD</i>	<i>χ²/Z</i> <i>p</i>
Age					
≤ 40	138 (56.3)	127 (92)	11 (8.0)	.078±1.038	-.760
≥ 41	107 (43.7)	102 (95.3)	5 (4.7)	.73±1.137	.447
Education					
Elementary	12 (4.9)	11 (91.7)	1 (8.3)	1.25±1.422	
High school	9 (3.7)	9 (100)	0 (0)	.44±.726	3.019
University and above	224 (91.4)	209 (93.3)	15 (6.7)	.75±1.068	.221
Staff position					
Academician	177 (72.2)	166 (93.8)	11 (6.2)	.71±1.068	
Administrative staff	57 (23.3)	53 (93)	4 (7)	.81±1.025	4.909
Other	11 (4.5)	10 (90.9)	1 (9.1)	1.36±1.43	.086
Having a family member/relative with breast cancer					
Yes	50 (20.4)	47 (94.0)	3 (6.0)	.062±1.086	-1.383
No	195 (79.6)	182 (93.3)	13 (6.7)	.79±1.079	.167
Information about breast cancer					
Yes	216 (88.2)	204 (94.4)	12 (5.6)	.073±1.071	-1.240
No	29 (11.8)	25 (86.2)	4 (13.8)	.97±1.149	.215
Breast self-examination every month					
Yes	86 (35.1)	83 (96.5)	3 (3.5)	.74±1.031	-.155
No	159 (64.9)	146 (91.8)	13 (8.2)	.77±1.109	.877
Regular mammography status					
Yes	108 (44.1)	101 (93.5)	7 (6.5)	.75±1.103	-.206
No	137 (55.9)	128 (93.4)	9 (6.6)	.77±1.066	.837

Discussion

The primary aim of this study was to determine the cultural beliefs of working women about breast cancer. "Culture" is a broad concept that is used to describe the customs, values, beliefs, behaviors, attitudes, and practices transmitted from one generation to another within a specific community (Shaw et al., 2018). Individuals' decisions about their health practices and behaviors are influenced by beliefs and perceptions (Suwankhong et al., 2023). Cultural beliefs are thought to play a crucial role in how certain communities perceive health risks and adopt behaviors that promote health (Kim et al., 2019). Women's attitudes and cultural beliefs are practical in helping to ensure that BC gets diagnosed early (Tosun et al., 2021). In one study, the risk of BC diagnosis being delayed was significantly higher in women who had a lot of beliefs than in those who had two or less (Tejeda et al., 2017). In the current study, the mean scale score was found to be 0.76. In the study carried out by Tosun et al., (2021) among women over 25, the Ferrans Cultural Beliefs Scale's mean total score was 3.24 ± 3.16 . Tejeda et al., (2017) reported a mean scale score of 3.38 ± 3.7 , noting that 44% of women held ≥ 3 cultural beliefs. Hong et al., (2017) conducted a study with 196 Korean-American women aged 50-74, and they determined a mean score of 2.2 ± 1.99 . Kim et al., (2019) reported cultural belief scores of 3.4 (out of 13) in Vietnamese women. The mean beliefs were found to be low in this study. Fewer cultural beliefs may contribute to reducing delays in diagnosis and treatment (Tejeda et al., 2017). It is thought that the composition of the group, primarily consisting of academic women working at a university, may have influenced this rate.

Some studies have found that women believe that getting BC is fate and a test from God and that prayer is necessary for healing (Shaw et al., 2018; Asobayire & Barley, 2015). Asobayire and Barley (2015) discovered that some Ghanaian women believed in some myths in BC, and these myths had become embedded within traditional beliefs. In Shaw et al., (2018) study, spiritual and religious beliefs, such as; conservatism, black magic, and, fatalism were identified as significant

barriers to screening program participation. Some Iranian women think that religious traditions and rituals, for example praying, swearing an oath, or visiting a holy place, could have healing effects when used in combination with medical treatment, according to Ghaderi et al., (2014). Most women believed that God intervenes in every aspect of the process, from the emergence of any disease to recovery (Ghaderi et al., 2014). While cultural beliefs differ in various studies, it is essential to understand these beliefs to determine educational needs. Individual or traditional beliefs have a critical role in the decision-making process for treating diseases, depending on individuals' knowledge levels.

This study discovered no statistically significant difference between women's ages, years of employment, daily working hours, and scale scores. Kursun et al., (2021) have stated that women's characteristics can influence their health beliefs and emphasized the need to increase awareness and education for early BC detection by considering these characteristics. Kwok et al., (2016) reported that barriers like beliefs in cultural health and behaviors, rather than demographic features, had a greater impact on the screening behavior of Australian Arab women. They also mentioned that full-time working women have less time to allocate to health issues, especially preventive care. Kim et al., (2016) found that the prevalence of participation in cancer screenings was lower among part-time employees compared to full-time employees. Researchers have also observed a relationship between increased age and higher rates of cancer screening. Kim et al., (2019) found that age significantly affected the cultural beliefs of women about BC, with participants under the age of 40 having significantly higher cultural belief scores than those over the age of 40. Education plays a crucial role in preventing and treating BC. Further increased education contributes to individuals being more sensitive and knowledgeable about health-related issues (Kursun et al., 2021). Asobayire and Barley (2015) revealed in their study of Ghanaian women that the degree of education significantly influenced knowledge and BC awareness.

In the present study, although knowledge rates are relatively high, the rates of performing a self-breast examination and getting mammograms, among the practices for early diagnosis, are quite low. Fouelifack et al., (2021) found in their studies that the majority of the group lacked basic knowledge about BC and had low implementation rates. Healthcare professionals and the media are critical players in the transfer of knowledge.

Cancer screening is an important and also very cost-effective method of preventing cancer (Kim et al., 2016). Raising women's awareness of BC is important because it can encourage regular screening (Guzel & Bayraktar, 2019). Suwankhong et al., (2023) mentioned that even when women are aware of screening methods, many barriers, such as accurate information, beliefs, personal awareness, screening skills, and health facility access, hinder BC awareness. Screening for BC is crucial for preventing disease progression and reducing morbidity or mortality rates by ensuring early diagnosis.

BC incidence in women has been slowly increasing since the mid-2000s (Siege et al., 2023). BC is first among female cancers in Turkey (Turkish Cancer Statistics, 2018). This study found that about a fifth of those surveyed had a family member/relative affected by BC. The fact that BC is the most widespread cancer in women contributes to this rate. The rise in BC cases is predicted to continue in the coming years (Akyolcu et al., 2019). It is believed that the presence of cancer in the family contributes to the sensitivity and motivation of individuals towards early screening methods for BC (Kursun et al., 2021). Since no risk factors are detected in 75% of women with BC, age-appropriate screening is essential (Dincel et al., 2014). Shaw et al., (2018) highlighted the need for universally applicable models of care that are culturally sensitive and respectful of belief systems in approaches to the prevention and treatment of cancer. It is essential to consider the widely embraced cultural beliefs about BC in society.

Limitations of the study: This research was conducted with female employees working at a foundation university in Istanbul. Therefore, the results can only be generalized to this

specific group of women. Additionally, women's self-reported breast self-examination practices were evaluated based on their declarations. The study's limitations include the inability to conduct face-to-face interviews with participants due to their workloads and the inability to reach some participants.

Conclusion: The presence of cultural beliefs of women against breast cancer may lead to delays in application to health institutions, diagnosis and treatment. The majority of participants have very few cultural beliefs. It is important to consider the commonly held cultural beliefs about breast cancer in society. Different results may occur in different groups, so more studies need to be done.

References

- Akarsu, N.K. & Andsoy, I.I. (2022). Evaluation of breast self-examination training in Turkish women living in Northwestern Turkey. *The Journal of Preventive Medicine and Hygiene*, 26 (63), E76-E82. <https://doi.org/10.15167/2421-4248/jpmh2022.63.1.2305>
- Akyolcu, N., Ozhanli, Y. & Kandemir, D. (2019). Recent developments in breast cancer. *Journal of Health Science and Profession*, 6 (3), 583-594.
- Asobayire, A. & Barley, R. (2015). Women's cultural perceptions and attitudes towards breast cancer: Northern Ghana. *Health Promotion International*, 30 (3), 647-657.
- Aydiner, A., Igci, A. & Soran, A., (eds). (2019). Breast Disease: Diagnosis and Pathology Volume I, 2. Edition, Springer, Switzerland, 13-204.
- Dincel, O., Basak, F., Pektaş, B. & Kinaci, E. (2014). Breast cancer risk assessment and level of knowledge in women with low levels of education. *The Medical Journal of Kartal Training and Research*, 25 (3), 181-186.
- Elewonibi, B. & Belue, R. (2019). The influence of socio-cultural factors on breast cancer screening behaviors in Lagos, Nigeria. *Ethnicity & Health*, 24 (5), 544-559.
- Ferrans, C., Rauscher, G., Akpan, B., Johnson, T., Ramirez, D., Willis, M. et al., (2007a) Cultural beliefs contributing to disparities in later-stage breast cancer among African American, Latina, and Caucasian women. *Quality of Life Research*, 16 (Suppl), A 27.
- Ferrans, C., Rauscher, G., Akpan, B., Johnson, T., Ramirez, D., Willis, M. et al., (2007b) Cultural beliefs contributing to disparities in

- later-stage breast cancer among newly diagnosed African American, Latina, and Caucasian women. *Oncology Nursing Forum*, 34 (1), 180-181.
- Fouelifack, F.Y., Binyom, R.P., Ofeh A.M., Fouedjio J.H. & Mbu R.E. (2021). Knowledge, attitude and practice of breast self-examination amongst women in two communities of Cameroon. *Open Journal of Obstetrics and Gynecology*, 11, 773-793.
- Ghadery, I., Kaviani, A., Fakhrejahani, E., Mehrdad, N., Hazar, N. & Karbakhsh, M. (2014). Religious, cultural, and social beliefs of Iranian rural women about breast cancer: A qualitative study. *Archives of Breast Cancer*, 1 (1), 25-31.
- Ginsburg, O., Yip, C.H., Brooks, A., Cabanes, A., Caleffi, M., Yataco, J.A.D. et al., (2020). Breast cancer early detection: A phased approach to implementation. *Cancer*, 126, (Suppl 10), 2379-2393.
- Guzel, N. & Bayraktar, N. (2019). Determination of women's awareness and practices on early diagnosis of breast cancer. *Journal of Hacettepe University School of Nursing*, 6 (2), 101-110.
- Hasnain, M., Menon, U., Ferrans, C.E. & Szalacha, L. (2014). Breast cancer screening practices among first-generation immigrant Muslim women. *Journal of Women's Health*, 23 (7), 1-11.
- Hong, H.C., Ferrans, C.E. Park, C., Lee, H., Quinn, L. & Collins, E.G. (2018). Effects of perceived discrimination and trust on breast cancer screening among Korean American Women. *Women's Health Issues*, 28 (2), 188-196.
- Hwang, J.J., Donnelly, T.T., Ewashen, C., McKiel, E., Raffin, S. & Kinch, J. (2017). Sociocultural influences on Arab women's participation in breast cancer screening in Qatar. *Qualitative Health Research*, 27 (5), 714-726.
- Kim, J.G., Hong, H.C., Lee, H., Ferrans, C.E. & Kim, E.M. (2019). Cultural beliefs about breast cancer in Vietnamese women. *BMC Womens Health*, 19 (1), 74. <https://doi.org/10.1186/s12905-019-0777-3>
- Kim, S.J., Han, K.T. & Park, E.C. (2016). Impact of job status on accessibility of cancer screening. *Cancer Research and Treatment*, 48 (2), 825-833.
- Kursun, S., Altuntug, K., Ege, E., Ozbiner, H. & Demlik, G.D. (2021) Health beliefs of women attending mammography unit and related factors. *Journal of Contemporary Medicine*, 11 (1), 104-109. <https://doi.org/10.16899/jcm.771721>
- Kuzhan, A., & Adli, M. (2015) The effect of sociodemographic-cultural factors on breast cancer. *European Journal of Breast Health*, 11, 17-21. <https://doi.org/10.5152/tjbh.2014.2293>
- Kwok, C., Endrawes, G. & Lee, C.F. (2016). Cultural beliefs and attitudes about breast cancer and screening practices among Arabic women in Australia. *Cancer Nursing*, 39 (5), 367-374.
- Kwok, C., Fethney, J. & White, K. (2012). Breast cancer screening practices among Chinese-Australian women. *European Journal of Oncology Nursing*, 16 (3), 247-252.
- Molassiotis, A., Tyrovolas, S., Giné-Vázquez, I., Yeo, W., Aapro, M. & Herrstedt, J. (2021). Organized breast cancer screening not only reduces mortality from breast cancer but also significantly decreases disability-adjusted life years: analysis of the global burden of disease study and screening programme availability in 130 Countries. *ESMO Open*, 6 (3), 100111. <https://doi.org/10.1016/j.esmoop.2021.100111>
- Sarmah, N., Sibiya, M.N., Khoza, T.E. (2023). The sociocultural influences on breast cancer screening among rural African women in South Africa. *International Journal of Environmental Research and Public Health*, 20, 7005. <https://doi.org/10.3390/ijerph20217005>
- Shaw, T., Ishak, D., Lie, D., Menon, S., Courtney, E., Li, S.T. & Ngeow, J. (2018). The influence of Malay cultural beliefs on breast cancer screening and genetic testing: A focus group study. *Psycho-Oncology*, 27, 2855-2861.
- Siegel, R.L., Miller, K.D., Wagle, N.S. & Jemal, A. (2023). Cancer statistics, 2023. *CA: a Cancer Journal Clinicians*, 73 (1), 17-48.
- Suwankhong, D., Liamputtong, P., Boonrod, T., Simla, W., Khunpol, S. & Thanapop, S. (2023). Breast cancer and screening prevention programmes: Perceptions of women in a multicultural community in Southern Thailand. *International Journal of Environmental Research and Public Health*, 20 (6), 4990. <https://doi.org/10.3390/ijerph20064990>
- Tejeda, S., Gallardo, R.I., Ferrans, C.E. & Rauscher, G.H. (2017). Breast cancer delay in Latinas: The role of cultural beliefs and acculturation. *Journal of Behavioral Medicine*, 40 (2), 343-351.
- Tosun, H., Andsoy, I.I. & Gul, A. (2021). Cultural beliefs of Turkish women for breast cancer and screening. *Journal of Transcultural Nursing*, 32 (5), 451-457.
- Turkish Cancer Statistics. T. C. Sağlık Bakanlığı. <https://hsgm.saglik.gov.tr/depo/birimler/kanse-r->

- db/Dokumanlar/Istatistikler/Kanser_Rapor_2018.pdf Accessed date: 13.11.2023
- World Health Organization 2020a. Up to a quarter of Europeans will develop cancer: from prevention, early diagnosis, screening and treatment to palliative care, countries must do more.
[https://www.who.int/europe/news/item/04-02-2020-up-to-a-quarter-of-europeans-will-develop-cancer-from-prevention-early-](https://www.who.int/europe/news/item/04-02-2020-up-to-a-quarter-of-europeans-will-develop-cancer-from-prevention-early-diagnosis-screening-and-treatment-to-palliative-care-countries-must-do-more)
- [diagnosis-screening-and-treatment-to-palliative-care-countries-must-do-more](https://www.who.int/europe/news-room/fact-sheets/item/cancer-screening-and-early-detection-of-cancer) Accessed date: 07.07.2024
- World Health Organization 2020b. Screening programmes: a short guide Increase effectiveness, maximize benefits and minimize harm. <https://www.who.int/europe/news-room/fact-sheets/item/cancer-screening-and-early-detection-of-cancer> Accessed date: 07.07.2024