ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research

Vol. 17, Issue, 02, pp.31787-31794, February, 2025
DOI: https://doi.org/10.24941/ijcr.48582.02.2025

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

KNOWLEDGE, ATTITUDE AND PRACTICE OF FEMALE RESIDENTS ABOUT BREAST CANCER IN THE UNITED ARAB EMIRATES (UAE): A CROSS-SECTIONAL STUDY

Noor Mohamed[1*], Aisha Al Falasi[1], Samia Farghaly[2], Nawal Majdi[1], Malalai Naqibullah[1], Yasmeena Adel[1] and Michael E. Otim[3]

[1]Department of Medicine, Dubai Medical College, Dubai, UAE; [2]Department of Primary Health Care, Dubai Medical College, Dubai, UAE; [3]Public Health and Behavioral Science, Dubai Medical College, Dubai, UAE

ARTICLE INFO

Article History:
Received 25th November, 2024
Received in revised form
20th December, 2024
Accepted 24th January, 2025
Published online 27th February, 2025

Key words:
Breast Cancer, Screening, Mammogram, Self-Examination, UAE.

***Corresponding author:**
Noor Mohamed

ABSTRACT

Introduction: Breast cancer remains a significant health concern globally and particularly in the United Arab Emirates (UAE), contributing to cancer-related mortality, especially among women. Despite advancements in screening and treatment, early detection remains pivotal for improving outcomes. **Aim:** To assess the knowledge, attitude, and practice of Breast cancer among residents in the United Arab Emirates. **Material and Methods:** A cross-sectional study. It used a questionnaire-based tool for collection and was conducted through an electronic survey for 3 months. Collecting data started after getting approval from Dubai Medical College Ethical Committee. Female UAE residents of all nationalities and starting age 18 and above were included to participate in this study by online distribution of the survey. **Results:** Awareness and Knowledge: 85.3% were aware of the UAE's breast cancer screening program. 79.6% believed mammograms can detect breast cancer early. Gaps in recognizing signs like lumps and nipple changes were noted. Attitudes towards Screening: 94.8% considered breast cancer screening important for early detection, 68.7% perceived screening as easy to perform, 85.3% believed in the necessity of regular screening, and 62.1% never had breast screening. Practices: 34.1% practiced breast self-examination and only 25.6% underwent mammography. Barriers to Screening: 31.2% perceived no risk, hindering mammography, 16.6% cited time constraints, and 22.3% lacked knowledge for self-examination. **Discussion:** Our study highlights gaps in breast cancer awareness, screening practices, and knowledge among the surveyed population. Notably, 11.4% were unaware that skin dimpling is a cancer symptom, and only 25.6% had undergone mammography, reflecting similar trends in UAE and Saudi studies. Breast Self-examination (BSE) was practiced by 34.1%, though misconceptions persist. The study underscores the need for improved education and targeted interventions. **Conclusion:** High awareness and positive attitudes towards breast cancer screening were evident among UAE women. However, gaps in actual screening practices, attributed to perceived barriers like risk perception, time constraints, and knowledge gaps, suggest a need for targeted interventions to improve early detection and reduce mortality.

Citation: Noor Mohamed, Aisha Al Falasi, Samia Farghaly, Nawal Majdi, Malalai Naqibullah, Yasmeena Adel and Michael E. Otim. 2025. *"*Knowledge, Attitude and Practice of Female Residents about Breast Cancer in the United Arab Emirates (UAE): A Cross-sectional Study*". International Journal of Current Research, 17, (02), 31787-31794.*

INTRODUCTION

Breast cancer poses a significant health challenge globally and is a leading cause of mortality among women in the United Arab Emirates (UAE). In 2020 alone, the UAE saw approximately 1,030 new cases of breast cancer, constituting 21.4% of all new cancer diagnoses in the country[1]. This underscores the urgent need for awareness, early detection, and effective management strategies. Globally, the impact of breast cancer is staggering, with 2.3 million women diagnosed in 2020, resulting in 670,000 deaths[2]. This disease manifests through the uncontrollable multiplication of abnormal cells in breast tissue, potentially forming tumors. While both benign and malignant tumors can occur, malignant tumors have the dangerous potential to spread to other parts of the body. Notably, breast cancer affects both men and women, although it's more common among women. Symptoms may include swelling, visible lumps, skin dimpling, breast skin irritation, and pain. Key risk factors such as female sex, advanced age, family history, genetic predisposition, and reproductive factors like early menses and late menopause significantly influence its occurrence[3]. Mortality can be prevented by the early detection of breast cancer through breast self-examination, clinical breast examination and mammography[4]. Hence, early detection is paramount for improving outcomes. Screening,

particularly through mammograms, facilitates the detection of breast cancer in its initial stages, enhancing the likelihood of successful treatment and prognosis. In Abu Dhabi, the Health Authority recommends regular mammograms every two years from the age of forty, with earlier screening advised for those with a positive family history. Breast self-examinations also play a crucial role in identifying potential abnormalities. However, despite these recommendations and advancements in medical knowledge, there remains a need to assess and understand the knowledge, attitudes, and practices of women in the UAE concerning breast cancer. Such insights are vital for tailoring effective awareness campaigns and healthcare initiatives to combat this pervasive disease. Breast cancer is a very deadly cancer which can progress and be detected in the very late stages in women. It is usually preventable and easily managed when detected early by regular screening. It's important for women to be knowledgeable and aware about breast cancer (such as warning signs and risk factors) in order to start taking proactive steps like early screening, breast self-examination and clinical breast examination which will hopefully reduce the incidence of mortality in women. Since breast cancer is the most common breast cancer among women in the UAE and the leading cause of cancer death in women. As of 2019, breast cancer caused an average of 11.6% of cancer deaths per year[5]. Hence, this study aims to determine the knowledge and awareness of breast cancer and attitude and practice of breast cancer screening of women in the UAE and detect the barriers that come along with screening. The primary aim of this research is to identify gaps in knowledge, attitudes, and barriers that might hinder women living in the UAE from actively participating in breast cancer screening programs. The objectives are as follows:

- To evaluate the level of awareness and knowledge of breast cancer among women in the UAE.
- To explore the attitudes of women towards breast cancer screening.
- To identify barriers women face regarding breast cancer screening.
- Identify the KAP for breast cancer among women in the UAE.

MATERIALS AND METHODS

Study design, setting and population: We used a cross-sectional design to answer the research question. An online survey was used as a data collection tool. The study population included female citizens and residents in the UAE. The research's sample size was calculated using the CDC calculator called StatCalc. The study's inclusion criteria involved residents of UAE (locals and non-locals), females who were 18 years and above. The exclusion criteria involved: males, age groups below 18, females with previous history of breast cancer, females with previous biopsied lesion.

Data collection: The online tool was made up of a questionnaire to capture the Breast Cancer Awareness Measure (Breast CAM) [6,7]. The questionnaire was provided in both Arabic and English, and it was administered via social media. The questionnaire consisted of questions on google forms regarding demographics, knowledge on warning signs of breast cancer, knowledge of breast cancer risk factors, questions on breast self-examination, clinical breast examination and mammography (knowledge, attitude and practice) [8] and questions on attitude towards breast cancer screening. Data collection took place between January 2024 and March 2024.

Demographic information collected included age, educational level, employment status, marital status, perceived monthly income, nationality. Based on questions answered, there were parameters which assessed the knowledge, attitude, and practice of the participants. Attitude was assessed as positive and negative, and Practice was assessed as poor, fair and good.

Data analysis: After data collection, an analysis was done using Statistical Package for the Social Science (SPSS) and Microsoft Office Excel. Results from numeric data were reported as descriptive statistics, and qualitative results were reported as cross-tabulated results with Pearson's chi-square tests.

Ethical considerations: Ethical approval to conduct this study was obtained from the Dubai Medical College for Girls Ethics Committee. IBR/DMCG/AY23-24/S-20. Before proceeding with the questionnaire, a digital consent form was provided in both Arabic and English to the participants. The consent form ensure participant's confidentiality, participant's freedom to participate and provided reasoning and objectives of the research.

RESULTS

Analysis of the Demographic data: The demographic information from the study participants exposes critical insights into the participation-age composition of the population and important socioeconomic factors that contextualize findings when interpreting knowledge levels and attitudes. Using the CDC sample calculator, we collected data from sample size of 370 participants, but only 211 (n) participated in the study. Below is a detailed analysis of the demographic characteristics.

Age Distribution: Predominantly ages 18 to 24 (39%) form the lions share of participation, with decreasing numbers for other age groups. Such a profile might affect the general outcome of this particular study as young people usually may differ from older cohorts in knowledge, level of exposure to education, and attitudes.

Educational Attainment: A substantial number (75%) of participants have obtained their university education, with the remaining 15% earning postgraduate qualifications. With High educational attainment, it matches a sample that is likely to have been exposed to formal knowledge systems indicating better levels of awareness and attitudes.

Employment Status: According to the respondents, 63% are unemployed-this is one of the characteristics of all the participants. It can be analyzed that whether unemployment means lower or higher retention of knowledge based on the different levels of engagement with a formal education system.

Marital Status: Most participants (52%) are unmarried, with a slight follower figure of married individuals at 48%. Marital status affects the time one can allocate for their assignment, responsibilities, and engagement in learning opportunities, thus influencing the acquisition of knowledge and attitudes.

Adequacy in Income: Above half (51%) see their income as enough; about a third (32%) describe it as enough with savings, leaving 17% claiming it is not enough. Being financially stable might be associated with an increased potential to have available resources and opportunities toward improved learning.

Nationality: 62% of sample respondents are Emirati nationals, with 38% being non-Emirati nationals. The sample still ensures most representation of the UAE population but allows comparative insights between national and expatriate populations.

Table 1. Demographic characteristics of the participants

Characteristics	Variable	%	(n)
Age	18-24	39	82
	25-34	18	38
	35-44	13	28
	45-54	17	36
	55+	13	27
Education	Middle school	1	2
	High school	12	25
	University	72	152
	Postgraduate	15	32
Employment	Employed	37	78
	Unemployed	63	133
Marital Status	Unmarried	52	110
	Married	48	101
Income	Sufficient	51	108
	Sufficient and saving	32	67
	Insufficient	17	36
Nationality	UAE	62	131
	Other	38	80

Knowledge about Breast Cancer: The knowledge of the participants was tested about the signs of breast cancer (Table 2). The study revealed that the majority of the participant, (58.30%), believed that a lump or thickening in the breast could be a sign of breast cancer. Notably, about 59% believed that a lump or thickening under the armpit could be a sign of breast cancer. Furthermore, participants agreed that other signs of breast cancer included: bleeding or discharge from the nipple (69.2%) of the participants; nipple inversion (50%); a rash on or around the nipple (40.76%); redness of the breast skin (36.5%); change in the size of the breast (42.7%); and change in the shape of the breast (52.1%) were all a sign of cancer. On further investigation, 44.1% of the respondents believed that pain in one of the breasts or armpits could be a sign of breast cancer; and dimpling of the breast skin (50.2%) could be a sign of breast cancer.

Table 2. Signs of Breast Cancer

Signs of Breast Cancer	Percentage (%)	(n)
Lump or thickening in the breast	58.3	123
Lump or thickening under the armpit	59	125
Bleeding or discharge from the nipple	69.2	146
Nipple inversion	50	106
Rash on or around the nipple	40.76	86
Redness of the breast skin	36.5	77
Change in the size of the breast	42.7	90
Change in the shape of the breast	52.1	110
Pain in one of the breasts or armpits	44.1	93
Dimpling of the breast skin	50.2	106

Regarding the risk of breast cancer, the respondents a revealed that the following were risk factors (Table 3): Having a history of breast cancer (73.5%); Having a close relative with breast cancer (72%); Using Hormone replacement Therapy (45%); Drinking more than one unit of alcohol (45.5%); and Being overweight (BMI over twenty-five (37.4%). Whereas the respondents disagreed or were not sure if the following were risk factors for breast cancer: Having children after 30 years old (84%); Not having children at all (73%); Starting period at an early age (73.5%); Having a late menopause (77.3%); and being involved in low level of physical (72.5%). Moreover, 85.3% of the population are aware that there is a screening program in the UAE.

Attitudes towards Screening for breast cancer: Attitudes towards screening for breast cancer are significantly positive. When asked about the importance of breast cancer screening in the early detection of cancer, 94.8% agreed that it is important, 4.7% were unsure, and 0.5% of the respondents disagreed with the statement. In another statement 68.7% of the population believes that breast cancer screening is easy to perform, 6.6% of the population disagrees with the statement, and 24.6% of the population is unsure about whether breast cancer screening is easy to perform.

Moreover, there is a strong agreement among the population about the importance of regular breast cancer screening. Stating that 85.3% of the population believes that breast cancer screening must be done regularly, 4.7% of the population disagrees with the statement. 10.0% of the population is unsure about whether breast cancer screening must be done regularly.

Practices about breast cancer: Table 5 represents the breast examination data. 7% of the population practices breast self-examination at a frequency of 3-5 years. While the highest respondent in this section of 45% practices breast self-examination once a month, 11% of the population practices breast self-examination once every 2 months. and 37% of the population practices breast self-examination once or twice per year. A large number of individuals (62.1%) in the UAE have never had breast screening before. Individuals believed that the right time to practice breast self-examination is after menstruation ends with a percentage of 77.3%. In comparison, 15.2% believe that the right time to practice breast self-examination is before menstruation and 7.6% of the population believes that the right time to practice breast self-examination is during menstruation.

The levels of awareness among the population regarding changes in their breasts are shown in the data. The highest response, 65.9%, has never noticed a change in their breasts, 22.3% has noticed a change in their breasts, and 11.8% is unsure if they have noticed a change in their breasts. A massive portion of the population does not regularly practice breast self-examination by their physician, as the percentage shows 66% of the population does not practice breast self-examination, and only 34% practices. Moreover, when asked about how often do these women check their breasts rarely or never was the most chosen selection in frequencies at which individuals check their breasts for any changes constituting 45.3%. When 23.7% of the population checks their breasts at least once a month. while 2.9% of the population checks their breasts at least once a week and 28.1% of the population checks their breasts at least once every 6 months. Graph 1 finds out the reasons that why individuals may not practice breast self-examination, 39% did not know why they did not do so. Concerning the reasons why individuals do not undergo clinical breast examination, the main reason was that they did not know about 32% and the clinician did not offer the examination 25% as demonstrated in Graph 2. A sizeable

Table 3. Knowledge of risk factors

How much do you agree the following increase the chance of developing breast cancer	Agree (% of the population) (n)	Disagree (%) (n)	Not sure (%) (n)
Having a history of breast cancer	73.5% 155	15.6% 33	10.9% 23
Using Hormone replacement Therapy	45% 95	15.6% 33	39.3% 83
Drinking more than one unit of alcohol	44.5% 94	19.9% 42	35.5% 75
Being overweight (BMI over twenty-five	37.4% 79	19.9% 42	42.7% 90
Having a close relative with breast cancer	72% 152	14.7% 31	13.3% 28
Having children after 30 years old	15.6% 33	41.2% 87	43.1% 91
Not having children at all	27% 57	36.5% 77	36.5% 77
Starting period at an early age (before 11y.o)	26.5% 56	30.8% 65	42.7% 90
Having a late menopause	22.7% 48	29.4% 62	47.9% 101
Level of activity - Doing less than 30 mins of moderate physical activity five times a week	27.5% 58	29.9% 63	42.7% 90

Table 4. Attitudes towards screening

Attitudes Towards Screening	Percentage (%)
Breast cancer screening is important for early detection of breast cancer	
Agree	94.8
Disagree	0.5
Not sure	4.7
Breast cancer screening is easy to perform	
Agree	68.7
Disagree	6.6
Breast cancer screening must be done regularly	
Agree	85.3
Disagree	4.7
Not sure	10.0

Table 5. Breast Examination by individuals

Breast Examination Data	Percentage (%)
What is the frequency of practicing breast self-examination?	
Every 3 - 5 years	6.6
Once a month	45.5
Once every 2 months	10.9
Once or twice per year	37.0
Have you had a breast screening done before?	
No	62.1
Yes	37.9
When is the right time to practice breast self-examination in relation to menstrual period?	
After menstruation ends	77.3
Before menstruation	15.2
During menstruation	7.6
Have you ever noticed a change in your breasts?	
No	65.9
Not sure	11.8
Yes	22.3
Do you practice breast self-examination?	
No	65.9
Yes	34.1
Do you practice clinical breast examination by your physician?	
No	66.4
Yes	33.6

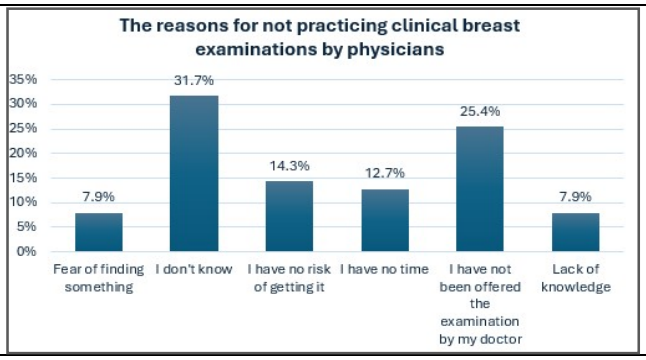
portion of the population - 79.6% believes that a mammogram of the breast can detect cancer early. Differing opinions among the population regarding the most appropriate age group for the first mammography examination, with a majority leaning towards age 40 and above consisting of 58.3%. while 26.5% of the population believes that the most appropriate age group for the first mammography examination is between 31-40 and % of the population believes that the most appropriate age group for the first mammography examination is between 20-30.

Most of the study sample does not undergo mammography. Out of the 211 individuals, 74% of them did not undergo mammogram and 26% of the population practiced mammography as represented in the table. When asked about the recommended frequency of the mammogram responses 14.2% of the population believes that a mammogram should be done every 3-5 years. 14.7% of the population is uncertain about how often a mammogram should be done, 2.8% of the population believes that a mammogram should be done once a

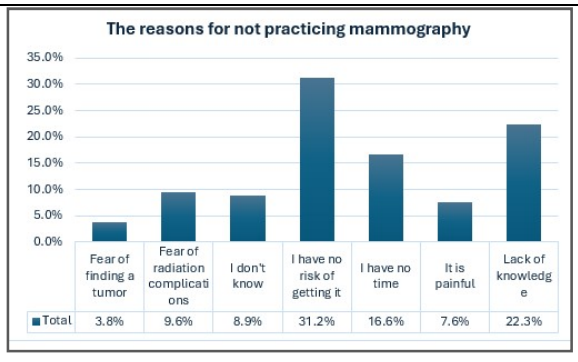
Table 6. Mammography Examination

Mammography Examination	Percentage (%)
A mammogram of the breast detects the cancer early	
I don't know	16.6
No	3.8
Yes	79.6
Age group is most appropriate for the first mammography examination	
20-30	15.2
31-40	26.5
More than 40	58.3
Do you practice mammography?	
No	74.4
Yes	25.6
How often should a mammogram be done?	
Every 3 - 5 years	14.2
I don't know	14.7
Once a month	2.8
Once every 6 months	16.6
Once per year	51.7
Do you know, which of these groups should regularly do a mammography?	
All healthy women over the age of 40	45.5
All of the above	1.9
Every woman	0.5
Women suffering from breast cancer	7.1
Women with family history of breast cancer	45.0

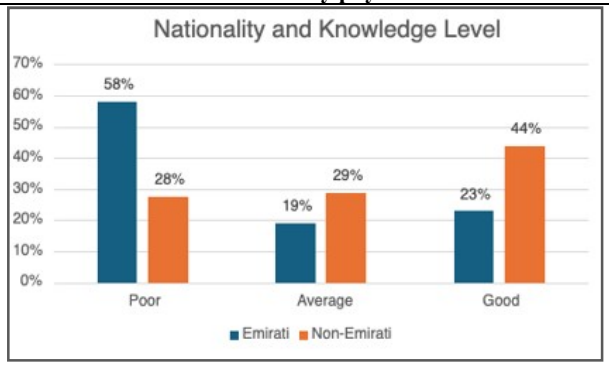
Graph 1. Reasons for not practicing breast self-examination



Graph 2. The reasons for not practicing clinical breast examinations by physicians

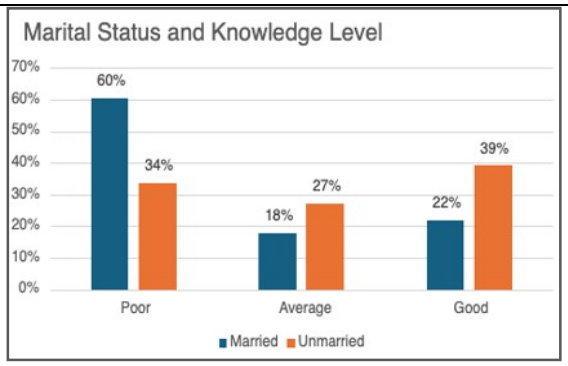


Graph 3. Reasons for not practicing mammography

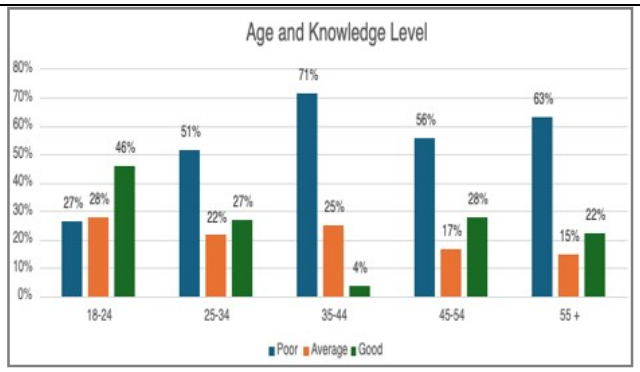


Graph 4. Nationality and knowledge level of breast cancer

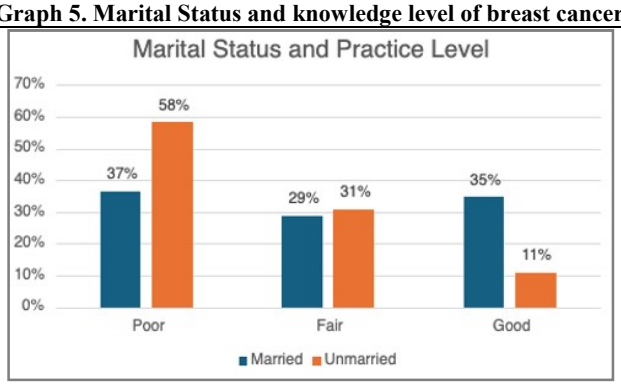
month, 16.6% of the population believes that a mammogram should be done once every 6 months, 51.7% of the population believes that a mammogram should be done once per year. Not only the most appropriate age group, but also which categories of woman should undergo mammography shows a variable opinion. 45.5% of the population believes that all healthy women over the age of forty should regularly undergo mammography and 45.0% of the population believes that women with a family history of breast cancer should regularly undergo mammography. A smaller percentage of 1.9% of the population believes that all the listed groups should regularly undergo mammography and 0.5% of the population believes that every woman should regularly undergo mammography. Lastly, 7.1% of the population believes that women suffering from breast cancer should regularly undergo mammography. There were many reasons as to why women refrained from undergoing a mammogram as represented in Graph 3. 31.2% of those who do not practice mammography believe they have



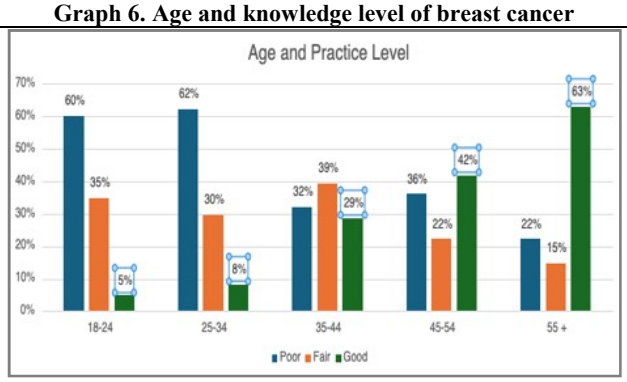
Graph 5. Marital Status and knowledge level of breast cancer



Graph 6. Age and knowledge level of breast cancer



Graph 7. Marital Status and practice level of breast cancer



Graph 8. Age and Practice level of breast cancer

no risk of getting breast cancer. 16.6% of those who do not practice mammography state lack of time as the reason. 7.6% of those who do not practice mammography mention that mammography is painful. 22.3% of those who do not practice mammography cite lack of knowledge as the reason. To assess the knowledge, attitude and practice of breast cancer and breast cancer screening among residents in the United Arab Emirates evaluation of the relationship between KAP to the sample's demographics are shown in the following graph and figures.

Based on the p value 0.05 using Chi-square, there was a significant relationship between knowledge level and age (p = <0.001), nationality (p = <0.001), marital status (p= <0.001). Graph 4 represents the Nationality and Knowledge Levels: Emirati vs. Non-Emirati. A large number of Emirati women about 58% are noted have to poor knowledge of breast cancer compared to non-Emiratis which is 27.5% (22). While 44% Emiratis had good knowledge about the information on breast cancer and 23% of non-emiratis had good knowledge. While Average knowledge of Emirati was 19% and 29% non-emiratis had average knowledge. This shows an educational Imbalance between emiratis and non-emiratis in UAE about important topics such as breast cancer. Hence the target programs need to include more Emiratis then non-emiratis enhancing the education, preparations and seminars. The solution also includes partnerships with the government, schools and private sectors. Marital status also plays a role in knowledge level. Graph 5 represents marital status and their knowledge level. The data shows that 60% of married couple has poor knowledge of breast cancer, while 39% of unmarried individuals have good knowledge about it. This might be due to the increased responsibility of family and work of married couples that they find less time for educating themselves hence, the target programs should include more married couples and provide them flexible opportunities for self-improvement. Further investigation is required into the cultural and socio-economic factors affecting the level of knowledge. The data shows the knowledge level according to the ages of individuals. 46% of young individual (18-24 years) has good knowledge. However, older age group (35-44 years) of 71% had poor knowledge. Hence the target programs to spread information about breast cancer needs to include older people as well while improving the knowledge of young individuals too. Most of the women regardless of marital status showed poor practice levels (47.9%) as represented in Graph 7. Of the women who had a poor practice level, 36.6% of those were married women and 58.2% of those were unmarried women. However, women who were married had better practice in comparison to those who were unmarried. 34.7% of married women had good practice while 10.9% of unmarried women had good practice. There was a significant relationship between practice level and age (p value <0.001) and practice level and marital status (p value <0.001). It was obvious that those who are older had good practice levels. Those who are 55+ years old (63%) followed by 45-54 years old (42%) as represented by Graph 8. Younger women had poor practice levels mainly those aged between 25-34 (62%), this can be explained by the fact that women of that age bracket are not offered clinical breast examination and mammography.

DISCUSSION

The findings from our study shed light on the knowledge, attitudes, and practices of breast cancer screening among residents in the United Arab Emirates (UAE). These insights are crucial for designing effective interventions to improve early detection and reduce breast cancer-related mortality rates.

Knowledge and Awareness: The high awareness level (85.3%) regarding the UAE's breast cancer screening program is encouraging. It indicates successful efforts in promoting awareness about available screening methods. However, there

were notable gaps in knowledge concerning the recognition of early signs of breast cancer, such as lumps and changes in nipple appearance. This suggests a need for targeted education campaigns to enhance public understanding of these crucial indicators.

Attitudes towards Screening: The positive attitude (94.8%) towards the importance of breast cancer screening for early detection is a significant finding. It reflects a strong belief among UAE residents in the value of proactive health measures. Moreover, the perception of screening being easy to perform (68.7%) is encouraging as it can contribute to higher participation rates in screening programs.

Practices and Barriers: Despite the positive attitudes, the actual screening practices reveal some challenges. A considerable proportion (62.1%) of the population has never undergone breast screening, and only a minority (25.6%) practices regular mammography. Barriers such as the perception of low risk (31.2%), time constraints (16.6%), and lack of knowledge (22.3%) regarding screening methods contribute to these low participation rates.

The discussion of the study's findings on breast cancer symptoms, screening methods, risk factors, knowledge level, and demographic variations provides crucial insights into the awareness, attitudes, and practices concerning breast health among the surveyed population, drawn from both the literature review and our own current research study. Firstly, regarding breast cancer symptoms, our findings align with previous literature, revealing gaps in awareness. In our current study, for example for one of the many symptoms that we surveyed for, 11.4% of the population does not believe that dimpling of the breast skin could be a sign of breast cancer. 19% of participants from the 2022 UAE study were unaware of breast cancer symptoms, consistent findings from the Hungarian study where Lay women 16.7% lacked awareness[9]. This underscores the persistent need for enhanced public education campaigns to improve symptom recognition. Secondly, concerning screening methods, disparities in utilization and perception were evident. Our study revealed a low uptake of mammography, with only 25.6% reporting prior mammograms, mirroring the findings from the 2022 UAE study where 70% of the population had never undergone breast screening[10]. In Saudi study[11], 18.7% had ever undergone mammography. Moreover, barriers such as fear of pain or lack of time hindered screening uptake, consistent with previous literature[12]. Our research also sheds light on Breast Self-Examination (BSE) practices, with 34.1% of participants reporting regular BSE. While in the Saudi study, 74.7% of participants practiced BSE. However, misconceptions persist, as evidenced by 16.6% being uncertain about the effectiveness of BSE in detecting breast cancer. These findings underscore the need for comprehensive education not only on mammography but also on the importance and correct methodology of BSE for early detection. Thirdly, our study underscores varying levels of knowledge and demographic influences. Emirati women exhibited poorer knowledge levels compared to non-Emirati counterparts, with marital status and age playing significant roles in knowledge disparities, as observed in our current study and supported by previous research. Additionally, insights from the Saudi study[11] indicate similarly low levels of knowledge, with only 1.5% of participants demonstrating good knowledge and 26.8% displaying a fair level of knowledge. Lastly, attitudes towards breast cancer screening revealed mixed perceptions. While the majority recognized the importance and ease of screening, significant proportions (14.7%) remained unsure about regularity and program awareness, emphasizing the ongoing need for comprehensive educational initiatives. Overall, drawing from both the literature review and our own current research, the findings underscore the importance of greater awareness, promoting regular screening, and tailoring interventions to diverse demographics, strides can be made towards early detection and improved breast health outcomes.

Implications for Intervention: To bridge the gap between positive attitudes and actual screening practices, interventions should focus on:

- Education and Awareness: Targeted campaigns should emphasize the importance of recognizing early signs of breast cancer and the effectiveness of screening methods in early detection.
- Accessibility and Convenience: Efforts to reduce time barriers, such as offering flexible screening appointments and promoting convenient locations, can improve participation rates.
- Risk Perception: Addressing misconceptions about personal risk factors and emphasizing the importance of screening for all age groups can encourage more individuals to undergo regular screenings.
- Healthcare Provider Engagement: Encouraging healthcare providers to recommend and offer screening during routine visits can increase screening uptake. Healthcare providers has to be aware of beliefs, culture and practices that influence and prove as barriers in breast cancer screening causing delays in diagnosis and treatment[13,14].

By addressing these factors comprehensively, we can work towards improving breast cancer screening rates and contribute to better health outcomes for women in the UAE.

CONCLUSION

In conclusion, our study underscores the importance of understanding the dynamics of breast cancer screening awareness, attitudes, and practices among UAE residents. While there is a commendable level of awareness and positive attitudes towards screening, there exists a notable gap between intentions and actions. To bridge this divide and enhance early detection efforts, targeted interventions are imperative. By focusing on education, accessibility, risk perception, and healthcare provider engagement, we can strive towards improved screening rates and ultimately better health outcomes for women in the UAE. This collaborative approach holds the promise of making significant strides in combating breast cancer and reducing mortality rates in the region.

ACKNOWLEDGEMENTS

We are grateful to Dr. Nehad Hassan from DHA for her help with the statistics.

Declarations

Consent for publication The participants gave their consent for public and so did all the authors.

Competing interests: None

AI declaration: N/A

Funding source: N/A

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