

## Females Employees' Knowledge, Attitude and Perceived Barriers Regarding the Ministry of Health Initiatives for Early Detection of Breast Cancer at Mansoura University



1 Amal Sarhan El-Desokey Genedy, 2 Nehmedo Ezzat Osman and 3 Dalia E. Khalil

1 Lecturer of Maternal and Neonatal Health Nursing, Faculty of Nursing, Fayoum University, Egypt

2 Lecturer of Woman's Health and Midwifery Nursing, Faculty of Nursing, Mansoura University, Egypt

3 Lecturer of Community Health Nursing, Faculty of Nursing, Mansoura University, Egypt

### 1.ABSTRACT

**Background:** The goal of the women's health program is to focus on reproductive health by early detection of breast cancer, clinical assessment and free treatment. **Aim:** To investigate female employees' knowledge, attitude and perceived barriers regarding the ministry of health initiatives for early detection of breast cancer at Mansoura University. **Design:** Cross Sectional with analytical components study design was used. **Setting:** The study was conducted at faculties of Mansoura University. **Sample:** A purposive sample of 300 female employees was included in the research starting from, July 2021 to the end of December 2021. **Tools:** Two tools for data collection were used; structured interviewing questionnaire and Likert attitude scale. **Results:** The study showed that, 51% of the studied sample had unsatisfactory knowledge level regarding initiatives for early detection of breast cancer. Moreover, 65.3% of the studied sample had negative attitude regarding initiatives for early detection of breast cancer. There were positive correlations between the total knowledge scores regarding breast cancer and total knowledge scores regarding initiatives for early detection of breast cancer among the studied sample. **Conclusion:** More than half of the studied sample had unsatisfactory level of knowledge about initiatives for early detection of breast cancer. **Recommendations:** Implement awareness-raising strategies into action to encourage females' employees to support Egyptian initiatives.

**Keywords:** Attitude, Barriers, Breast Cancer, Knowledge, Ministry of Health Initiatives

### 2.Introduction:

Breast cancer is the leading cause of cancer deaths in women worldwide. It is the main cause of women cancer-related deaths in developing countries, and it is the second-leading cause of cancer death in developed countries (Seely & Alhassan, 2018).

In 2020, there were 2.3 million women diagnosed with breast cancer and 685000 deaths globally. As of the end of 2020, there were 7.8 million women alive who were diagnosed with breast cancer in the past 5 years, making it the world's most prevalent cancer (WHO, 2021).

Breast cancer is a type of cancer that develops in the breast cells because these cells have atypical growth patterns. Additionally, those cells might move to regions of your body where they aren't typically found (Web MED Cancer Center, 2021).

The likelihood of successfully treating cancer is considerably increased by early identification. The component of early cancer detection is early diagnosis and early

screening. While screening involves checking healthy people to identify cancer patients before any symptoms appear, early diagnosis is on identifying symptomatic patients as soon as possible (Aklilu et al., 2021).

A key factor in early cancer prevention and screening is knowledge and attitudes of female employees. These factors, along with the healthcare system and the social environment, appeared to have a significant impact on the female employees' preventative behaviors (Yeshitila et al., 2021).

Breast cancer initiative; a global campaign to reduce disparities in breast cancer outcomes and improve access to breast health care for 2.5 million women by 2025 (UICC, Global Cancer Control, 2020). The launching of the first Egyptian national screening program "Women Health Outreach Program"(WHOP) was announced on October 30<sup>th</sup> 2007 (Wahdan, 2020).

In this regard, in October 2018, WHO and the Ministry of Health and Population

(MoHP) collaborated to create the "100 Million Seha campaign" & a national screening initiative for mass screening and treating non-communicable diseases and HCV infections (WHO, 2020).

Considering that nurses are the most numerous and closest to the patient members of the medical staff, they can be particularly helpful in raising community awareness (Sachdeva et al., 2021). Also, the role of nurses is complex as it includes their role as caregiver, administrator, counselor, educator, researcher that use evidence based and leader to improve women's perception toward initiative for breast cancer early detection and screening (Zhao, Pang, & Lu., 2021).

#### Justification of the study:

Globally, breast cancer is the most common cancer among women, comprising 23% of the female cancers. Due to greater life expectancies, increased industrialization and younger women adopting western lifestyles, the incidence rate of breast cancer is quickly rising in emerging countries (Haque et al., 2016).

In Egypt, the age adjusted rate of breast cancer is 49.6 per 100.000 population and the median age for diagnosis is one decade younger than European countries and most female patients are pre-menopausal (Manzour and Gamal, 2019).

As a result, President Abdel Fatah Al-Sisi has emphasized the significance of initiatives of breast cancer early detection, screening and the Ministry of Health and Population will carry out the initiative throughout Egypt in 2019 and 2020 with the aim of lowering woman morbidity and mortality (Wahdan, 2020).

#### Aim of the study:

To investigate female employees' knowledge, attitude and perceived barriers regarding the Ministry of health initiatives for early detection of breast cancer at Mansoura University.

#### Research questions:

1. What is the females employees' knowledge regarding initiatives for early detection and screening of breast cancer?

2. What is the females employees' attitude regarding initiatives for early detection and screening of breast cancer?

3. What are the perceived barriers for early detection and screening of breast cancer?

#### Subjects and Methods:

##### Study Design:

A cross sectional with analytical components study design was used.

##### Setting:

The study was conducted at the selected faculties of Mansoura University, including nursing, pharmacy, medicine and science.

##### Sampling:

##### Sample type:

A purposive sample was selected.

##### Inclusion criteria:

Females' employees in reproductive age groups from 15-45 years working at the selected settings.

##### Exclusion criteria:

Pregnant woman, past history of breast cancer and free from any current breast problem.

##### Sample size:

The total numbers of the available female employee were 300 females working at the Mansoura University at the selected settings.

Based on data from literature (Alenezi et al., 2020), to calculate the sample size with precision/absolute error of 5% and type 1 error of 5%. Sample size is calculated according to the following formula,

$$n = \frac{(Z_{1-\alpha/2})^2 \cdot P(1-P)}{d^2}$$

Where,  $Z_{1-\alpha/2}$  at 5% type 1 error ( $p < 0.05$ ) is 1.96, P is the expected proportion in population based on previous studies and d is the absolute error or precision. Therefore, sample size

$$n = \frac{(1.96)^2 \cdot (0.225)(1-0.225)}{(0.0473)^2} = 299.4.$$

Based on the formula, the total sample size required for the study is 300 females.

**Tools of data collection:**

Two tools were used for data collection:

**Tool I: Structured interviewing questionnaire sheet:**

The researcher developed the tool after reviewing the related literature. It was divided into four parts:

Part (1): It includes the general characteristics of the studied female employees such as age, degree of education and marital status.

Part (2): It includes knowledge regarding breast cancer as; definition, risk factor, symptoms and screening of breast cancer.

Part (3): It includes knowledge regarding the ministry of health initiatives for early detection of breast cancer as; meaning and services of initiatives, people who provide this care and sources of information.

Part (4): It includes the perceived barriers of studied females' employees regarding the ministry of health initiatives for early detection of breast cancer.

**Knowledge scoring system:**

**A. Knowledge of the studied females employees regarding breast cancer**

This part related to females' knowledge about breast cancer and classified into 3 categories, with total number of 17 questions. Each correct answer was scored as (1) and (0) for the wrong one as the following:

1. Meaning and risk factors of breast cancer (It included 6 items = 6 marks)
2. Symptoms of breast cancer (It included 8 items = 8 marks)
3. Methods of breast cancer screening (It included 3 items = 3 marks)

The total knowledge scores ranged from (0 to 17 marks). The knowledge level was categorized into two levels as:

- Unsatisfactory = scores less than 60% of total scores (0-less than 10.2 marks)
- Satisfactory = scores 60% and more of total scores (10.2 - 17 marks)

**B. Knowledge of the studied females' employees regarding initiatives for early detection of breast cancer.**

The total questions were 14; each correct answer was given one mark, while incorrect answer was given zero mark. The score were summed up to get the total score. The total knowledge score ranged from (0 to 14 marks). The knowledge level was categorized into two levels as:

- Unsatisfactory if scores  $\leq 60\%$  of total scores (0 - less than 8.3 marks)
- Satisfactory if scores  $\geq 60\%$  of total scores (8.4 - 14 marks)

**Tool II: (Likert attitude Scale):**

It was adapted from Manzour and Gamal (2019) to measure female employees' attitude regarding the ministry of health initiatives for early detection of breast cancer. The adapted scale included 13 clear statements.

• Attitude scoring system:

The scale was composed of 13 statements, the total scores of the scale ranged from (13-39) points, for attitude scale using (Agree =3, Uncertain =2 and Disagree =1). These scores were summed and were converted into a percent score and classified into 2 categories:

- Positive attitude (24-39)  $\geq 60\%$ .
- Negative attitude (13-23)  $< 60\%$ .

**Content validity**

Five experts in obstetrics and gynecology nursing and community health nursing evaluated the data collection tools to assess their content validity. Each expert was asked to evaluate the resources in terms of their overall quality, subject coverage, phrasing, length and structure.

The tool hasn't undergone any modifications.

**Reliability**

Cronbach's Alpha coefficient test will use to measure the reliability of the tools which used in the current study. Overall test and retest reliability coefficient values for tool (1) = 0.875 and for tool (2) = 0.832.

**Ethical Considerations:** The Mansoura University, Faculty of Nursing's Scientific Research Ethical Committee gave its consent before the study begins. Obtaining official approval from the director to carry out the study at Mansoura University. Each participant provided their written consent. They were assured that, anonymity and confidentiality would be guaranteed with no harm. The researchers informed the women that the

information they had gathered would be kept secret and the option to withdraw was available to every woman at any time, without giving a reason and this for those who were willing to participate and complete the study.

**Administrative design:**

The director of the previously stated faculties received an official letter from the dean of the nursing faculty at Mansoura University outlining the study's title and objectives.

**Operational Design:**

**Preparatory phase:**

Throughout this stage, the researcher reviewed relevant studies, national and international literature, using books, periodicals journals, magazines and internet. These helped the researcher to become more knowledgeable about the research and the tool-designing process. Following that, tools were designed and examined for validity and reliability.

**Pilot study:**

The pilot study was conducted on 10% of the total sample size (30) female employees to evaluate the efficiency and clarity of the study tools. There were no necessary modifications made according to the result of the pilot study.

**Fieldwork:**

Data collection was started and finished at 6 months beginning in July 2021 and ending in December 2021. Firstly, the researcher introduced herself to female employee in confident and trust to participate in the study and then obtained their written consent; woman was interviewed in the private place. All female employees were interviewed according to their

consequently in the faculty attendance book for employee and explain to them the aim of the study about female employee's knowledge and attitude regarding the ministry of health initiatives for early detection of breast cancer. The researcher interviewed 5 females' employees each day; the researcher interviewed each employee within 20 minutes. These were repeated daily till the sample size was obtained. The first Faculty was the Faculty of Nursing, Pharmacy, Medicine, and finally the Faculty of Science.

**Statistical design:**

The Statistical Package for Social Science (SPSS), version 25, was used for both the statistical analysis and data entry. Frequencies and percentages were used to present the results. The arithmetic mean, standard deviation and correlation coefficient test were all included in the statistical study.

**Limitations of the study:**

Some faculties Employees was not consistently present, some refused to complete the questionnaire while they were at work and some of them refused to communicate.

**Results**

**Table (1)** illustrates that, 55% of the studied sample aged  $\geq 35$  years with a Mean  $31.44 \pm 7.58$  years. As regards educational level, 71.3% of the studied sample had high education. Also, 68% of them were married.

**Table (2)** shows that, respectively, 54.7%, 55.7% and 22.7% of the studied sample had insufficient level of knowledge on the meaning and risk factor, symptoms, and screening procedures for breast cancer.

**Figure (1):** Reports that 58% of the studied sample had unsatisfactory level of knowledge concerning breast cancer.

**Table (3):** Portrays that 86% 44.7% of the studied sample stated the meaning and the target age of the initiative respectively.

**Figure (2):** Confirms that 51% of the studied sample had an inadequate level of knowledge about initiatives for breast cancer early detection.

**Figure (3):** Shows that 66% of the study sample acquired the majority of their information

on initiatives for early detection of breast cancer from the media. However, just, 3.3% of them thought that doctors were dependable sources of knowledge.

**Table (4)** illustrates that, 71.7% of the studied sample were fear from screening procedure of the breast cancer which may influence future fertility. Also, 75.3% of the studied sample fear of God exposes their internal body part to male physicians.

**Figure (4):** Finds that, 65.3% of the women in the study had a negative attitude about the national initiatives for breast cancer early detection established by the Egyptian Ministry of Health.

**Table (5)** suggests that, among the study sample, there is an intermediate positive associations between total knowledge scores about initiatives for breast cancer early detection and total knowledge scores about

knowledge of breast cancer ( $P = 0.000$  and  $r = 0.566$ ).

**Table (6)** indicates that, there is an intermediate positive correlations between both total knowledge scores regarding breast cancer and total knowledge scores in regards to the initiatives for breast cancer early detection and total attitude score regarding initiatives for early detection of breast cancer among the studied sample ( $P = 0.042$  and  $r = 0.396$  &  $P = 0.031$  and  $r = 0.418$ ) respectively.

**Figure (5):** Indicates that, the studied sample had barriers regarding the ministry of health initiatives for early detection of breast cancer. Where, 46 %, 48.3% and 49.3% of them respectively reported that their barriers were, long waiting time to be screened unsuitable initiative date & time and overcrowding.

**Table (1):** Distribution of the studied sample according to their general characteristics (n = 300).

General characteristics	N	%
<b>Age (years)</b>		
20 - < 25	22	7.3
25 - < 30	50	16.7
30 - < 35	63	21
≥ 35	165	55
<b>Mean ±SD</b>	<b>31.44±7.58</b>	
<b>Educational level</b>		
Secondary education	68	22.7
High education	214	71.3
Post graduate	18	6
<b>Marital status</b>		
Single	56	18.7
Married	204	68
Widow	12	4
Divorced	28	9.3

**Table (2):** Distribution of studied sample according to their knowledge scoring level regarding breast cancer (n = 300).

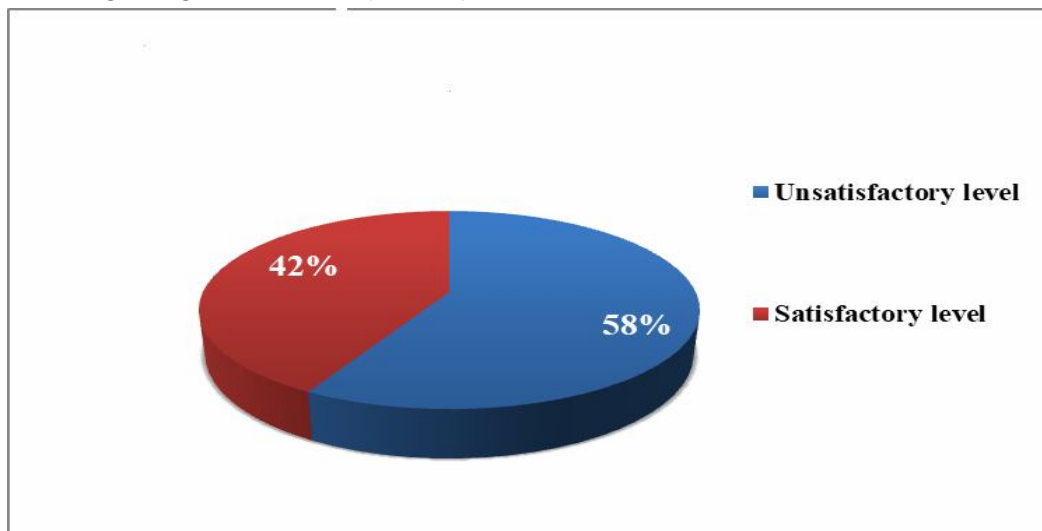
Item	Frequency N= (100)	Percentage %	M ±SD
<b>Meaning and risk factors of breast cancer (Scores = 6)</b>			
- Unsatisfactory	164	54.7	2.85 (1.42)
- Satisfactory	136	45.3	
<b>Symptoms of breast cancer (Scores = 8)</b>			
- Unsatisfactory	167	55.7	4.18 (2.6)
- Satisfactory	133	44.3	
<b>Screening methods of breast cancer (Scores = 3)</b>			
- Unsatisfactory	68	22.7	2.06 (1.03)
- Satisfactory	232	77.3	

Unsatisfactory level of knowledge ≤ 60%.

Satisfactory level of knowledge  $\geq 60\%$ .

M  $\pm$ SD= Mean  $\pm$ Standard Deviation

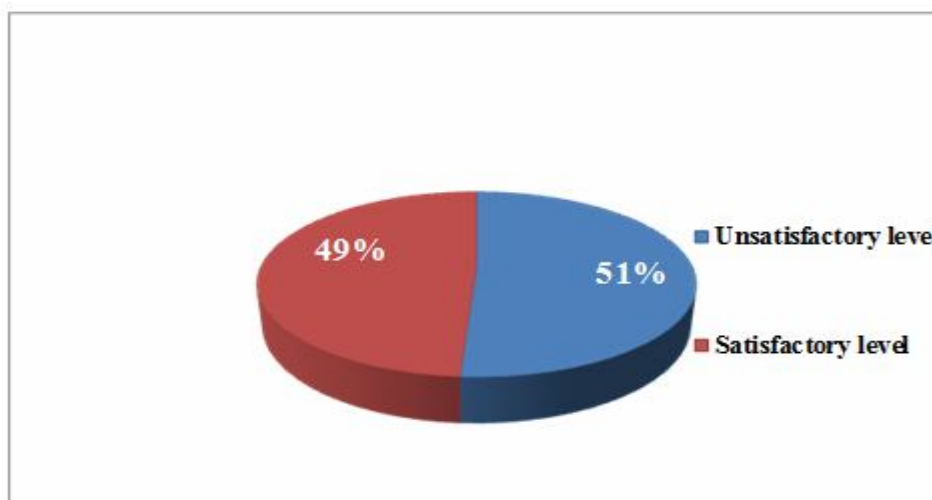
**Figure (1):** Distribution of the studied sample according to their total knowledge scoring level regarding breast cancer (n = 300).



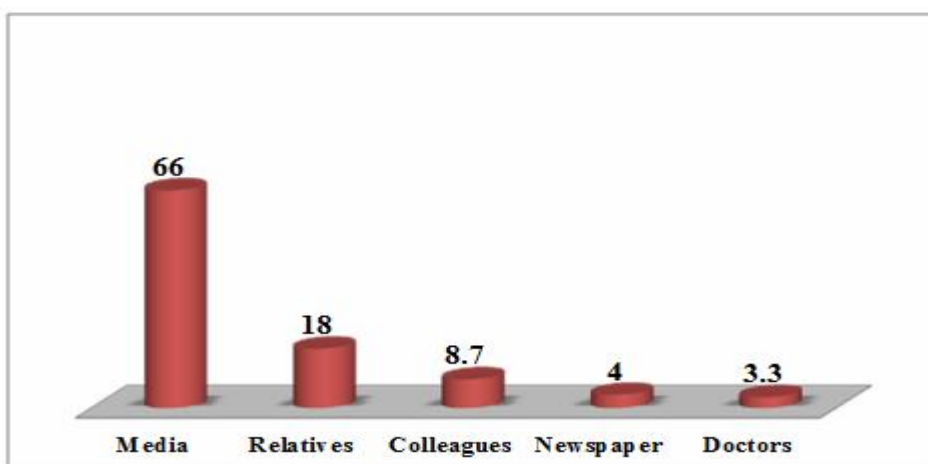
**Table (3):** Distribution of the studied sample according to their knowledge regarding initiatives for breast cancer early detection (n =300).

Items	Correct answer		Incorrect answer	
	N	%	N	%
Meaning of initiative	258	86	42	14
The target age for the initiatives	134	44.7	166	55.3
Initiatives start date	107	35.7	193	64.3
People who provide health care in the campaign	240	80	60	20
<b>Initiative missions</b>				
Breast self-examination	235	78.3	65	21.7
Detecting blood pressure and diabetes diseases	233	77.7	67	22.3
Measuring height and weight	264	88	36	12
<b>Initiative places</b>				
Health units	138	46	162	54
Mobile Cars	147	49	153	51
Hospitals	142	47.3	158	52.7
<b>Initiative services</b>				
Screening	223	74.3	77	25.7
Diagnosis	237	79	63	21
Medication	175	58.3	125	41.7
Referral	151	50.3	149	49.7

**Figure (2):** Distributions of the studied sample according to their total knowledge scores level regarding initiatives for early detection of breast cancer (n = 300).



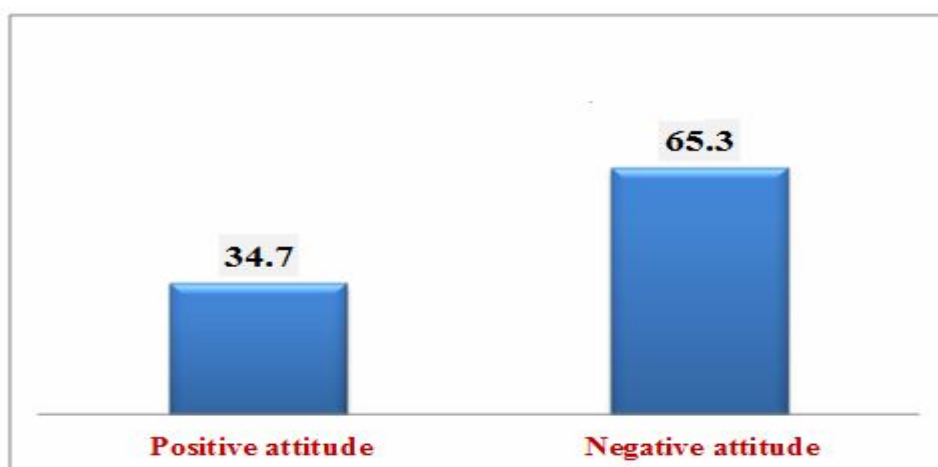
**Figure (3):** Distributions of the studied sample according to their sources of information regarding initiatives for early detection of breast cancer (n = 300).



**Table (4):** Distributions of the studied sample according to their attitudes regarding initiatives for breast cancers' early detection (n = 300).

Items	Agree		Uncertain		Disagree	
	N	%	N	%	N	%
Fears to be screened and diagnosed of breast cancer	164	54.7	42	14	94	31.3
Believing that breast screening is not important	72	24	82	27.3	146	48.7
Fears from God to exposed my internal body part to males physician	226	75.3	44	14.7	30	10
Breast cancer is the main killer among females of reproductive age group	99	33	145	48.3	56	18.7
Feels reassured when visiting breast cancer early detection clinics	195	65	30	10	75	25
Be assured of discussing breast cancer symptoms with initiatives members	82	27.4	28	9.3	190	63.3
Early detections leads to the prevention and management of breast cancer	192	64	74	24.7	34	11.3
Accept the regularly following up	42	14	68	22.7	190	63.3
Commitment to follow-up appointments for periodic breast cancer screening	40	13.3	65	21.7	195	65
Fears from screened of breast cancer, which may influence future fertility	215	71.7	35	11.6	50	16.7
Fears of stigma in the family if diagnosed with breast cancer	210	70	38	12.7	52	17.3
Fear of divorce if I was diagnosed with breast cancer	202	67.3	36	12	62	20.7
Mistrust in breast cancer screening procedure	174	58	78	26	48	16

**Figure (4):** Distribution of the studied sample according to their total attitudes scoring level regarding initiatives for breast cancers' early detection (n = 300)



**Table (5):** Correlations between total knowledge scores of the studied sample about initiatives for early detection early detection of breast cancer (n=300).

Predictor	Total knowledge score regarding breast cancer
Total knowledge score regarding the initiatives for early detection of breast cancer	r = 0.566 P = 0.000

r: for Spearman correlation coefficient test P value significant if  $\leq 0.05$

If r = Zero this means no correlation between the two variables.

If  $0 < r < 0.25$  = weak correlation. If  $0.25 \leq r < 0.75$  = intermediate correlation.

If  $0.75 \leq r < 1$  = strong correlation. If  $r = 1$  = perfect correlation.

**Table (6):** Correlations between the studied sample total knowledge scores about initiatives for early detection of breast cancer with their total attitude scores (n=300).

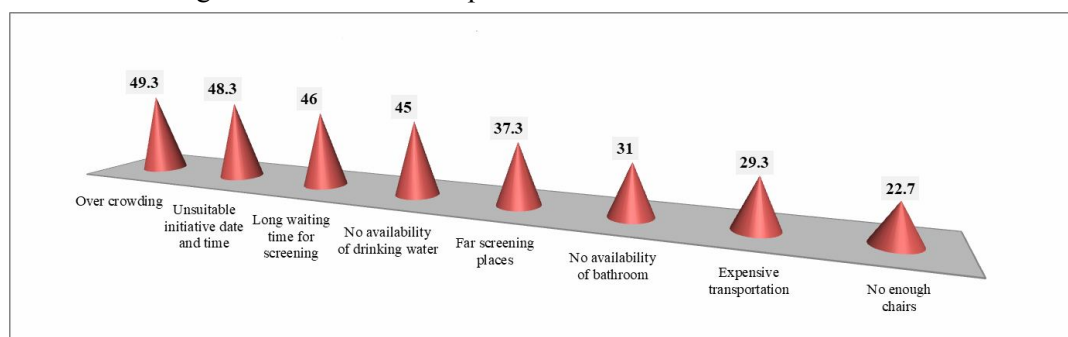
Predictors	Total knowledge scores regarding breast cancer	Total knowledge scores regarding the initiatives for early detection of breast cancer
Total attitude score regarding initiatives for early detection of breast cancer	r = 0.396 P = 0.042	r = 0.418 P = 0.031

r: for Spearman correlation coefficient test P value significant if  $\leq 0.05$ .

If r = Zero this means no correlation between the two variables.

If  $0 < r < 0.25$  = weak correlation. If  $0.25 \leq r < 0.75$  = intermediate correlation.

If  $0.75 \leq r < 1$  = strong correlation. If  $r = 1$  = perfect correlation.



**Figure (5):** Distribution of the studied sample according to their barriers regarding the ministry of health initiatives for early detection of breast cancer



## **Discussion**

Breast cancer is the most frequently diagnosed cancer among women around the world, making it a significant public health problem, the present study aimed to investigate female employees' knowledge, attitudes and perceived barriers regarding the ministry of health initiatives for early detection of breast cancer. This aim was significantly approved within the framework of the present study's research questions.

The present study indicated that more than half of the studied sample had unsatisfactory level of knowledge regarding initiatives for breast cancer early detection. These results agreed with the research conducted by **Abd El-Aziz et al., (2021)**, regarding the prevalence of breast cancer among Egyptian women, the knowledge and behavior of family caregivers after providing care for patients having the disease. The similarity between both studies may be related to that, the breast cancer screening knowledge and awareness among Egyptian females was deficient.

Also, these results were agreed with the results of the study done by **(Kharaba et al., 2021)** about awareness of breast cancer early detection, self-evaluation and practices in terms of self-examination for the purpose of detecting breast cancer early. It was reported that, 50% of the women under the study had the wrong information.

However, these results were disagreed with the study done by **Ismail (2021)**, on the Women in **Klang and Selangor**, who inquired concerning their knowledge and awareness about mammography and breast cancer initiatives and these results revealed that more than half of them were knowledgeable about these initiatives.

Also, these results disagree with the study done by **Walz (2021)** concerns breast cancer awareness, attitudes and behaviors as well as early detection initiatives among healthcare professionals and students in Mogadishu, who stated that, half of the participant had satisfactory level of knowledge regarding breast cancer initiatives. It may be due to women who have

enough information about breast cancer being interested in campaigns to raise awareness against breast cancer.

Nearly two-thirds of women in the study reported negative attitudes toward the initiatives for breast cancer early detection presented by the Egyptian Ministry of Health, according to the current study. These findings are consistent with the result of the study done by **Al-Shammari et al., (2020)** concerning the uptake of mammography among the female personnel at King Saud University, who indicated that somewhat more than two-thirds of the women under study had a negative attitude towards awareness initiatives. The current studied sample lack of knowledge regarding breast cancer early detection may be the underlying cause that led to their lack of interest in the fight against the disease.

Additionally, the present study findings were consistent with those **Gaikwad & Dandekar (2021)** according to a survey of female patients at the Mahatma Gandhi Ayurveda Hospital, who found that, two-thirds of the women had negative opinions towards knowledge of breast self-examination. They have a negative attitude toward breast cancer early detection campaigns because they are unaware of the significance of breast self-examination for the early diagnosis of the condition.

Also, these results were agreed with the study achieved by **(Thapa, Awale & Shrestha, 2021)** who studied the "Awareness of Breast Cancer, Attitude and Practice towards its Screening among Female Support Staff in a Teaching Hospital" and reported that, two-thirds of women in the study had negative attitudes towards breast cancer awareness campaigns.

However, this result disagreed with the study achieved by **Larsen (2022)**, it was published in Canada and was titled "I think it is a powerful campaign and does a great job of raising awareness in young women" Findings from Breast Cancer Awareness campaigns targeting young women in Canada. Who asserted that the program for early detection of breast cancer was well received by the majority of the studied sample? Since they were aware of the

need of breast cancer screening, the women had positive attitudes towards the advertisement.

These findings are also in conflict with the research achieved by **Ali et al., (2019)**, about awareness, knowledge and attitudes toward breast self-examination: A cross-sectional study among females in Malaysia who stated that, slightly less than two-thirds of the studied sample had a positive attitude regarding the initiative for early detection of breast cancer. This difference may be due to variations between the study samples.

The present study findings revealed intermediate positive correlations between total correct knowledge scores regarding breast cancer and the total correct knowledge regarding initiatives for early detection of breast cancer among the studied sample being researched.

The results of this research were consistent with **Kalliguddi, Sharma & Gore (2019)** who reported that, there were highly significant positive correlations between total correct knowledge scores regarding breast cancer and total correct knowledge regarding breast self-examination for early detection of breast cancer.

Additionally, these findings supported the results of a study conducted by **Alam et al., (2021)**, who mentioned that, there were highly significant positive correlations between total correct knowledge regarding breast cancer and the total correct knowledge regarding initiatives for breast cancer early detection.

Also, this result was consistent with **Khan et al., (2021)** who indicated that there was a highly significant positive correlation between total right knowledge of breast cancer and total correct awareness of initiatives for early diagnosis of breast cancer.

In the researcher point of view, it may be related to that, some of the women being aware of breast cancer screening because the media has done advertizing about free breast cancer screening through the health unit that help raising women's awareness of breast cancer early detection.

The results of the current study revealed that there were a moderately favorable link between

total correct information about breast cancer and total attitudes toward initiatives for early diagnosis of breast cancer.

These results support the study done by **Sarker et al., (2021)**. Results of their study on / about breast cancer knowledge, breast self-examination procedures and barriers among Bangladeshi University women students and found that there were strong positive correlations between total correct knowledge about breast cancer and total positive attitude toward initiatives for breast cancer early detection.

**Jackline et al., (2021)**, in contrast, claimed the knowledge of the program for breast cancer early detection and attitudes toward health awareness efforts on the topic did not have a statistically significant positive relationship. It can be as a result of the different educational backgrounds of the study sample.

The current study revealed that the program for breast cancer early detection from the ministry of health were inadequate for nearly half of the sample. Additionally, there are long screening wait times, inappropriate work hours and crowding.

These findings are consistent with a research by **Nyante et al., (2021)**, who studied the Impact of Coronavirus Disease, 2019 on Breast Cancer Screening and Diagnostic Procedures and found that, the majority of the studied sample was concerned about coronavirus infection due to crowding.

Also, these results are similar to the result of the study performed by **(Campbell et al., 2021)**, about COVID-19 and cancer screening in Scotland, a nationwide and coordinated approach to prevent harm, concerned about finding of COVID-19 that attributable to overcrowding and formed the majority of the research sample.

This congruence of the results is due to, the Corona pandemic affecting the world, so women were more afraid and concerned about the epidemic rather than initiatives for breast cancer early detection.

### **Conclusion**

According to the study's findings, more than half of the sample had inaccurate knowledge of program for the early identification of breast cancer. Also

additionally, more than two thirds of the sample under study showed negative attitudes toward activities for breast cancer early detection. Additionally, among the study group, there was a strong positive association between overall attitudes toward efforts and correct information of breast cancer.

#### **Recommendations**

Based on this study's findings, the researcher made several recommendations;

- Design and implement guidelines to raising females' awareness and motivation towards Egyptian initiatives.
- Raising awareness regarding the importance of national initiatives plan for early detection of breast cancer into undergraduate and postgraduate at Universities.
- Design brochure about the importance of national initiatives plan for breast cancer early detection, their distributed among Universities employees at Universities.

#### **For further research in this field;**

Replicate the present study in another Universities and another sample.

#### **References**

- Abdelaziz, A. H., Shawki, M. A., Shaaban, A. M., Albarouki, S. K., Rachid, A. M., Alsalhani, O. M. & Jomaa, M. K (2021).** Breast Cancer Awareness among Egyptian Women and the Impact of Caring for Patients with Breast Cancer on Family Caregivers' Knowledge and Behaviour. *Research in Oncology*, 17(1), 1-8.
- Alenezi, A, Almutairi, Alhajeri, H., Addali, A and Gamil, A, 2018.** Flow structure and Heat transfer of Jet Impingement on a Rib Roughened latplate. *Energies*, 11(6), P.1550.
- Aklilu, S., Bain, C., Bansil, P., de Sanjose, S., Dunstan, J. A., Castillo, V. & Scheel, J. R. (2021).** Evaluation of diagnostic ultrasound use in a breast cancer detection strategy in Northern Peru. *PloS one*, 16(6), e0252902.
- Alam, N. E., Islam, M. S., Ullah, H., Molla, M. T., Shifat, S. K., Akter, S. & Mohiuddin, A. K. M (2021).** Evaluation

of knowledge, awareness and attitudes towards breast cancer risk factors and early detection among females in Bangladesh: A hospital based cross-sectional study. *PloS one*, 16(9), e0257271.

- Ali, A. N., Yuan, F. J., Ying, C. H., & Ahmed, N. Z (2019).** Awareness, Knowledge and attitude towards breast self-examination: A cross-sectional Study among Female Pharmacy Students in Malaysia. *International Research Journal of Oncology*, 2(4), 1-10.
- Alshammari, S. A., Alhazmi, A. M., Alenazi, H. A., Alshammari, H. S., & Alshahrani, A. M (2020).** Mammography uptake among the female staff of King Saud University. *Journal of Family Medicine and Primary Care*, 9(1), 221.
- Azudin NAB., Shafri, N.B., Haque, M. (2016).** Cognizance and utilization about breast cancer screening among the health professional female students and staffs of University Kuala Lumpur, Royal College of Medicine Perak, Malaysia; 37:286-292.
- Gaikwad, I., & Dandekar, P (2021).** Knowledge, Awareness and Attitude about Breast Lump among Females Attending Mahatma Gandhi Ayurved Hospital. *Indian Journal of Forensic Medicine & Toxicology*, 15(1).
- Gebeyehu, S., Memiah, P., & Desta, M. (2021).** Breast selfexamination practice and its determinants among women in Ethiopia: A systematic review and meta-analysis. *PloS one*, 16(1), e0245252
- Haque, A.T.M.E., Hisham, M., Bin, M.A., Ahmad Adzman, NALB., Azudin NAB., Shafri, N.B., Haque, M. (2016).** Cognizance and utilization about breast cancer screening among the health professional female students and staffs of University Kuala Lumpur, Royal College of Medicine Perak, Malaysia; 37:286-292.
- Ismail, N. F. (2021).** Knowledge And Awareness of Breast Cancer campaign And Mammography among Women in Klang, Selangor. *Malaysian Journal of Applied Sciences*, 6(1), 15-20.

- Jackline, W., Charles, M., John, O., & Edward, M. (2021).** Influence of Knowledge, Attitudes and Practices on Breast Cancer Early Detection.
- Kalliguddi, S., Sharma, S., & Gore, C. A (2019).** Knowledge, attitude, and practice of breast self-examination amongst female IT professionals in Silicon Valley of India. *Journal of family medicine and primary care*, 8(2), 568
- Khan, N. H., Duan, S. F., Wu, D. D., & Ji, X. Y (2021).** Better Reporting and Awareness Campaigns Needed for Breast Cancer in Pakistani Women. *Cancer Management and Research*, 13, 2125.
- Kharaba, Z., Buabeid, M. A., Ramadan, A., Ghemrawi, R., Al-Azayzih, A., Al Meslamani, A. Z., & Alfoteih, Y (2021).** Knowledge, Attitudes, and Practices Concerning Breast Cancer early screening and Self Examination among Females in UAE. *Journal of community health*, 46(5), 942-950.
- Larsen, L (2022).** "I think it is a powerful campaign and does a great job of raising awareness in young women": Findings from Breast Cancer Awareness campaigns targeting young women in Canada. *Canadian Oncology Nursing Journal/Revue canadienne de soins infirmiers en oncologie*, 32(1), 61-67.
- Manzour and Gamal Eldin (2019).** *Journal of the Egyptian Public Health Association* 94:26, <https://doi.org/10.1186/s42506-019-0026-5>.
- Sachdeva, S., Mangalesh, S., & Dudani, S. (2021).** Knowledge, Attitude and Practices of Breast SelfExamination Amongst Indian Women: A Pan-India Study. *Asian Pacific Journal of Cancer Care*, 6(2), 141-147.
- Sarker, R., Islam, M. S., Moonajilin, M. S., Rahman, M., Gesesew, H. A., & Ward, P.R. (2021).** Knowledge towards breast cancer, and breast self-examination practices and its barriers among university female students in Bangladesh: Findings from a cross-sectional study. medRxiv.
- Seely J.M. & Alhassan T. (2018).** Screening for breast cancer in 2018-what should we be doing today? *Curr Oncol.* 2018 Jun; 25(Suppl 1): S115–S124. doi: 10.3747/co.25.3770
- Thapa, S., Awale, S., & Shrestha, S (2021).** Awareness of Breast Cancer, Attitude and Practice towards its Screening among Female Support Staff in a Teaching Hospital. *Journal of Karnali Academy of Health Sciences*, 4(1).
- UICC Global Cancer Control (2020),** available at, <https://www.uicc.org/blog/breastcancer-initiative-25-five-years>.
- Wahdan, I. (2020).** Cost-Effectiveness of National Breast Cancer Screening Programs in Developing Countries, with Reference to the Recent Egyptian Initiative. *Journal of High Institute of Public Health*, 50(1), 1-9.
- Walz, L (2021).** Knowledge, Attitudes, and Practices Concerning Breast Cancer, and initiative for early detection among Healthcare Professionals and Students in Mogadishu, Somalia (Doctoral dissertation, Yale University).
- Web MD cancer center 2021.** available at: <https://www.webmd.com/breastcancer/understanding-breast-cancerbasics>
- WHO, (2020).** Breast Cancer Awareness Month in October. Retrieved in January 2020. Available at: [https://www.who.int/cancer/events/breast\\_cancer\\_month/en](https://www.who.int/cancer/events/breast_cancer_month/en)
- World health organization (2021).** Breast cancer, available at <https://www.who.int/newsroom/fact-sheets/detail/breastcancer>
- Yeshitila, Y. G., Kassa, G. M., Gebeyehu, S., Memiah, P., & Desta, M (2021).** Breast self-examination practice and its determinants among women in Ethiopia: A systematic review and meta-analysis. *PloS one*, 16(1), e0245252.
- Zhao, Y., Pang, D., & Lu, Y (2021).** The Role of Nurse in the Multidisciplinary Management of Cancer Cachexia. *Asia-Pacific Journal of Oncology Nursing*, 8(5), 487.

