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Perception and awareness of Albaha University female students towards breast self-examination and breast cancer: A cross-sectional observational study

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ABSTRACT

Background: Breast cancer incidence rates among Arab women have increased during the last decades. In Saudi Arabia, according to the Ministry of Health, breast cancer is the most common type of cancer among women. The aim of this study was to evaluate the level of awareness and perception towards breast cancer among the students of Albaha University, Saudi Arabia. *Methodology:* A cross-sectional institutional-based survey conducted from 15th February to 15th April 2019, among the students of Albaha University, Saudi Arabia. A sample of two hundred fifty female students was selected randomly from different faculties of Albaha University. The Statistical Package for the Social Sciences (SPSS- version 22.0) was used to analyze the data. *Results:* A total of (221) responses were analyzed with a response rate of (94.1%). Most of the respondents (91%) were in the age group of more than 20 years. Nearly all (98.6%) of the respondents told that they well knew breast cancer and were aware of cancer as an illness and (20.8%) revealed that they have family history of breast cancer. Their source of information was breast cancer awareness campaigns (68.1%). Regarding breast self-examination, less than half (46.6%) of those who knew about breast cancer had heard about breast self-examination (BSE). However, a considerable proportion (85.4%) of respondents does practice breast self-examination but irregularly. *Conclusions:* The awareness of Albaha University Female Students regarding breast cancer was satisfactory despite the hesitancy towards practicing breast self-examination which needs more elaboration and awareness campaigns.

Keywords: Albaha University, Awareness, Breast cancer, Breast self-examination.

1. INTRODUCTION

Breast cancer is a global public health problem and one of the most common malignant tumors among women of different ages resulting from the abnormal growth of breast cells (WHO, 2013; Ghoncheh et al., 2016). Breast cancer incidence rates among Arab women have increased during the last decades. Though, women are still being diagnosed with the disease at more advanced stages (Brown et al., 2012; Othman et al., 2015; Al-Saad et al., 2009). In Saudi Arabia, according to the Ministry of Health (WHO), breast cancer is the most common type of cancer among Saudi women, and in a 2017 report by the WHO, breast cancer comprising (18.7%) of all new registered cases. However, in 2014, more than (70%) of patients' consultations were at advanced stages, compared to (30%) in the developed world (Al Otaibi et al., 2017). Health related injury (morbidity and mortality) of breast cancer (BC) have been shown to be successfully reduced by early detection of BC through screening activities. Basic knowledge about breast cancer and practicing breast self-examination (BSE) among women is necessary for early diagnosis and treatment (Abasi et al, 2018).

In the south east of Saudi Arabia, the unavailability of a national breast cancer control program along with cultural norms to screening had led to the fact that breast cancer cases appear at advanced stages more than developed countries (Al Mulhim et al., 2015; Habib et al., 2010). Breast cancer in Saudi Arabia constituted about (27%) of all female malignancies in 2010, representing (25.1%) of all newly diagnosed female cancers (Al-Eid and Garcia, 2012; Radi, 2013). The awareness of Saudi females about breast cancer was found to be very inadequate according to many studies in different regions (Hussein, 2013; Ahmed et al., 2015; Mohamed et al., 2016). In the literature, no previous studies were done investigating breast cancer knowledge among students of Albaha University, Saudi Arabia. Therefore, the objectives of our study were to evaluate the level of awareness and perception towards breast cancer and to assess the practice of breast self-examination among female students of Albaha University, Saudi Arabia.

2. MATERIALS AND METHODS**Study design**

A cross-sectional institutional-based survey was conducted during the 2nd semester of the academic year 2018-2019 from 15th of February to 15th of April 2019. The purpose of this survey was to evaluate the level of awareness and perception towards breast cancer among the students of Albaha University, Saudi Arabia.

Study setting and population

Our population included all undergraduate female students who were registered at Albaha University. All female students of non-health specialty were considered for the study. The University is in Albaha city, the capital of Albaha region, south west of Saudi Arabia. It is a public university that was founded in 2006, it emphasizes public services in all of its disciplines through (11) faculties.

Study Sample

A convenience sampling technique was used to draw the study participants, a sample of two hundred fifty female university students were recruited randomly from different faculties with the exclusion of those students with are in medical or health sciences faculties.

Study Instrument

The instrument used for data collection was a questionnaire made in two versions, Arabic and English to make it easier to understand. The authors have generated the questionnaire and translated it. The study nature and objectives were explained to the participants prior to filling the form to gain the verbal consent.

The questionnaire components were intended to gain information regarding respondents' socio-demographic characteristics, knowledge, perceptions of breast self-examination and awareness regarding breast cancer. The responses of the respondents to these information were categorized into a range of numerical values which range from 1 to 3 i.e. from disagree given score one to agree scoring three by using a three point Likert scale.

Data analysis

All data were analyzed using the Statistical Package for the Social Sciences (SPSS Inc., Chicago, IL, version 22.0). One-way ANOVA with Post Hoc Tukey HSD (Honestly Significant Difference: a Post Hoc analysis used for multiple comparisons in order to detect where differences exist between pair-wise groups) was used. The level of statistical significance was set at (P-value <0.05).

Ethical consideration

The present study is approved by the research committee in the faculty of medicine, Al-Baha University, Saudi Arabia. In addition to a statement for participants clarifying that the data will be handled confidentially and for research purposes only.

3. RESULTS

Two hundred fifty questionnaires were distributed among female students of Albaha University that constituted our population during the study period; twenty-nine questionnaires (6.9%) were not completed. Thus, total of (221) responses took part in the analysis with a response rate of (94.1%). The Sociodemographic characters of our population are shown in (Table 1).

Family history and general knowledge of breast cancer

Nearly all (98.6%) of the respondents claimed that they well knew breast cancer and were aware of cancer as an illness and (20.8%) revealed that they have family history of breast cancer. However, when asked about their source of information, more than two thirds of those (68.1%) responded that the source of their information was the Breast cancer awareness campaigns (including social media), other responses regarding source of information are shown in (Table 1).

Table 1 Distribution of Socio-Demographic Characteristics

Item		Frequency (n=221)	Percentage
Age	17-19 years	21	9.5%
	20-22 years	160	72.4%
	More than 22 years	40	18.1%
Marital Status	Married	55	24.9%
	Single	166	75.1%
Educational Level	Level 2	45	20.4%
	Level 3	65	29.4%
	Level 4	111	50.2%

Family history of breast cancer	Yes	46	20.8%
	No	65	79.1%
Source of information	Family	20	9%
	School	34	15.3%
	Breast cancer awareness campaigns(including social media)	151	68.1%
	Others	16	7.6%

Perception and knowledge of breast cancer

Although none of the participants reported currently having breast cancer, (85.4%) the participants knew that breast cancer was highly prevalent among their societies, (91.4 %) knew that it occurs in phases, and (87.5%) have good ideas about its risk factors (Figure 1).

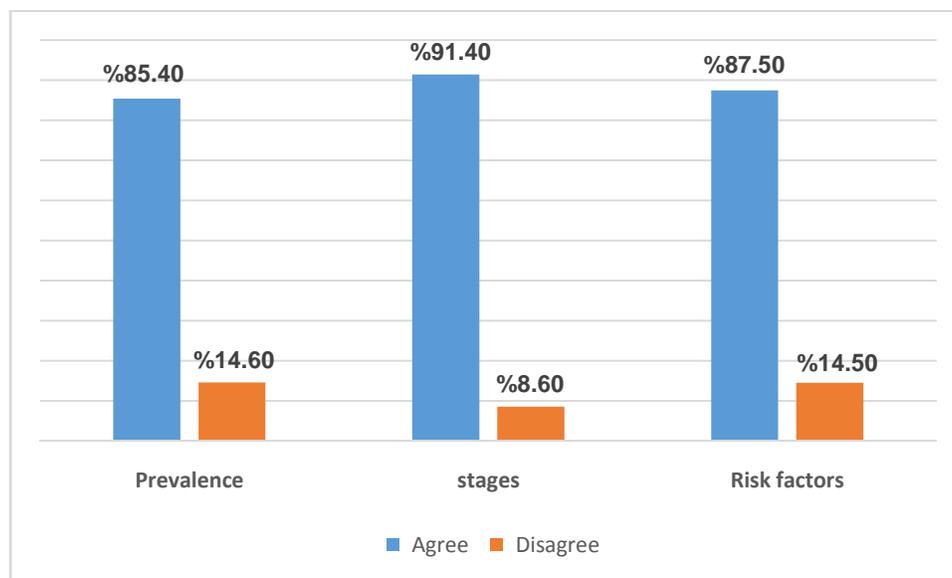


Figure 1 Distribution of respondents in relation to their Perception and knowledge of breast

Perception and Knowledge of Warning Symptoms and Signs of Breast Cancer

The majority of responses were in the favor of knowing the common symptoms of BC. In all the symptoms, more than half of the participants agreed to the correct symptoms suggested in the questionnaire (Table 2).

Table 2 Perception and Knowledge of Warning Symptoms and preventive measures.

Item	Agree (%)	Neutral (%)	Disagree (%)	
Symptoms & Sign	Painless Breast lump	53.5%	29.9%	16.6%
	Discharge or blood from the nipple	60.4%	30.6%	9.0%
	Changes in shape of the nipple	58.7%	20.9%	21.4%
Cancer preventive measures	Early detection	94.4%	4.2%	1.4%
	Medical checkup	85.7%	9.2%	4.1%
	Breast feeding	88.2%	9.0%	2.8%
	Health promotion	74.3%	14.6%	11.1%

Perception and knowledge of breast cancer preventive measures

The knowledge about preventive measures was satisfying. The majority agreed that early detection, medical checkups, breast feeding and health promotion are considered preventive measures (Table 3) regarding the perception of BSE. First, the participants were asked if they have heard about BSE, if the participant answered (yes) other questions were obligatory to determine the level of

knowledge about BSE. The included questions were about technique, repetition period, and appropriate time to perform BSE. The results regarding awareness questions are showed in (figure 2).

Table 3 Perception of Breast Self-Examination (BSE)

Item	Response		Percentage (%)	
	Yes	No	Yes	No
Heard about breast self-examination	103/217	118/217	47.5%	52.5%
Know how to perform breast self-examination	77/103	26/103	74%	26%
How often BSE should be performed	60/103	43/103	58.3%	41.7%
Knew the appropriate time to perform a BSE	13/103	90/103	12.6%	87.4%
Practice breast self-examination	88/103	15/103	85.4%	14.6%

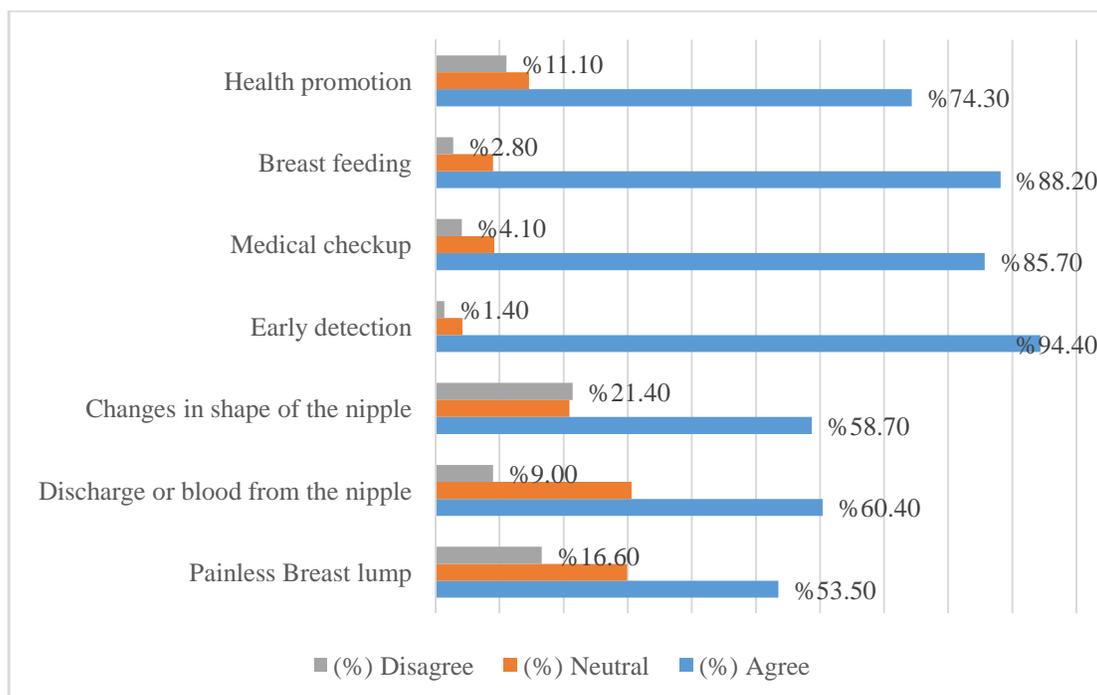


Figure 2 Perception and knowledge of breast cancer preventive measures

4. DISCUSSION

This is a questionnaire based study done to collect data and information from a large group in less time. In our study, nearly all (98.6%) the respondents told that they knew breast cancer and were aware of cancer as an illness since breast cancer is a common health problem in Saudi Arabia (Mohamed et al., 2016). The high level of awareness among our study group is promising and will conclude to early discovery of breast cancer and show an important role in the reduction of its morbidity and mortality at the level of Albaha community (Yousuf, 2010). Furthermore, in this study it has been found that breast cancer was highly prevalent among their societies, and (91.4%) knew that it occurs in phases, (87.5%) have good ideas about its risk factors, similar observations were also found and reported by Latif R, among Saudi university females students in Al Madinah Al Munawara among other studies in Saudi Arabia (Habib et al., 2010; Latif, 2014).

The results of awareness among our respondents about symptoms and signs of BC showed that (53.5%) of respondents agreed that breast cancer can be in a form lump within the breast, (60.4%) agreed that it may be in a form of abnormal breast discharge while (58.7%) reported a changes in shape of the nipple. This level of awareness is same as that reported among students of University of Sharjah, Ajman in UAE, as well as Iraq and Jordan (Alwan et al., 2012; Suleiman, 2014; Al-Sharbatti et al., 2014). Regarding breast self-examination (BSE) among our respondents, the practice of (BSE) is very worrying, where only (12.6%) actually practice BSE. This report is lower than other regional reports in Iraqi students in Kirkuk University, where (42.6%) admit that they practice BSE. Again, our findings were far less in comparison to some studies done in Saudi Arabia, as it has been reported from Al

Madinah Al Munawara (57.8%). However, practice of BSE among our respondents is a bit higher than reports from university of Dammam (8.7%) (Hussein, 2013; Ahmed et al., 2015; Mohamed et al., 2016).

Apart from students, women of Riyadh city were studied by Al Otaibi et al. (Al Otaibi et al., 2017) to identify their level of knowledge as regard to breast cancer and BSE, more than one third (38%) were not aware of BSE and did not recognize it. Interestingly, the general population of women was found to be less educated about breast cancer and its diagnostic methods. While we report a satisfactory level of knowledge among students, Al Otaibi et al., reported that about half of the studied population in Riyadh, Saudi Arabia, were not well educated about breast cancer (Al Otaibi et al., 2017). In Taif city, Saudi Arabia, a report that was published at the year of (2014) indicated a good level of knowledge regarding risk factors and BSE (93.3% and 87%) respectively. With one third (33.7%) had received their information mainly from TV (Mohammed et al., 2014). The students in our current study have reported health campaigns as the main source of information. This was also associated with a higher level of knowledge, for which the benefits of health education through campaigns can be of great importance and can impact the public health by increasing the awareness to prevent the delay of a proper diagnosis.

5. CONCLUSION

With the objective of measuring the level of awareness, our findings regarding perception and awareness of Albaha University Female Students towards breast cancer was satisfactory. Although, there is still a hesitancy towards practicing breast self-examination. The students have adequate knowledge about breast cancer and its risk factors, but the good level of knowledge did not influence the participants to a better practice towards breast self-examination. However, It was found that students benefit from health education through awareness campaigns more than other sources. Therefore, campaigns are considered an effective method to be utilized for the education about breast cancer. Future research should focus on studying the effect of educational programs and how effective they are in detecting the disease in its subclinical stages.

Conflicts of interest

The authors have no conflicts of interest to be declared.

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(REC/SUR/BU-FM/2019/0059).

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