IOSR Journal of Nursing and Health Science (IOSR-JNHS)
e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 6, Issue 3 Ver. V (May - June 2017), PP 84-90
www.iosrjournals.org

Female University Students' Health Beliefs Regarding tsaerB Cancer Early Detection Screening Measurements

Reda Mhmoud Hables[1]
[1] *Lecturer of Obstetric & Gynecological Nursing, Faculty of Nursing, Alexandria University, Egypt Assistant prof. Nursing Department (CAMS), Hafr Al- Batin University, KSA*

Abstract*: Every minute and every day breast cancer affects more women world wide. Cultural-appropriate concerns have vital role to promote breast cancer early detection screening measurement if the unique needs and ethnic characteristics for each group are defined. Women must be "breast aware", they must be capable of identifying symptoms of breast cancer through routine practice of screening.*
Aim*: This study aimed to assess the female university students' health beliefs regarding breast cancer early detection screening measurements. A descriptive exploratory research design was adopted.*
Methods*: The study was conduct at all of the available (4) Collage of University in Hafer Elbaten. Specifically, faculty of applied medicine sciences, faculty of art, faculty of education & literature and faculty of sciences . A convenience sample of 240 female students was included.*
Tools: *A structured interview schedule was used .It included the following parts: part I: Socio-demographic data and family history of cancer. Part II: Knowledge regarding breast self examination and Part III: Health Beliefs Questionnaire sheet. The later part contained 6 aspects. Namely, susceptibility, seriousness, benefits, barrier, self–efficacy and motivation regarding breast self examination.*
Results: *the study revealed that 46.2% of the study participants had low level of knowledge about breast self examination, 49.6% of them had neutral level of health believes. A statistically significant correlation between the health belief and knowledge level (0.00) was detected.*
Conclusion*: the students had low level of knowledge and neutral level of health beliefs regarding breast self examination.*
Recommendations*: The study suggested a continuing education programs to upgrade knowledge, change attitude, confidence and behavior towards breast self examination (BSE). Educating young women about early diagnostic methods of breast cancer to increasing their breast cancer awareness.*
Key words*: breast cancer , breast self examination , health believes*

I. Introduction

Cancer is a global issue that can affect any one without distinction of age, sex or social status .
It represents a tremendous burden on patients, their families and societies . Thus it poses a threat to human health and development. According to the World Health Organization (WHO) breast cancer is ranked second in incidence with about 10.9 % of all new cancer cases and also ranked as the fifth in mortality with about 6.1% of the total cancer deaths.(WHO ,2015, ferlay ,2014). Uptill now the definite etiology of breast cancer is not fully understood. Yet a variety of interrelated factors have been discussed. Some of these factors can be changed while others cannot. Since there is no sufficient knowledge on the causes for its, therefore, early detection remains the cornerstone of breast cancer control. It provides a good chance FOR decreasing the mortality and morbidity rates. Breast cancer can be early detected through mammogram which is a specialized x-ray of the breast, Clinical Breast Examination (CBE) in which breast is examined by a qualified health professional and Breast Self Examination (BSE). (ACS, 2012 & WHO , 2013) Despite the advent of modern screening methods, more than 80% breast cancer cases are detected by women themselves, stressing the importance of (BSE) as a most effective way to diagnose breast cancer and it is easy and can be done by anyone without any special equipment. Furthermore, it is also an economic, secure and non-invasive process (Akhtari , 2013) Healthcare professionals such as Primary health care workers should be involved in such screening programs and they should be encouraged to participate in women's health education to increase their knowledge about early detection behaviors by structuring nursing interventions' ,supported by models to regularly examine these behaviors and detect women's health beliefs (Jawed k, 2012) Women's performance of BSE is greatly shaped with their health belief model (HBM) which is a psychological model that attempts to explain and predict health behaviors. Where the person takes a health – related action when he/ she feels that a negative health condition can be avoided . Where one has a positive expectation that by taking a recommended action , he /she will avoid a negative health condition . (Glanz ,2008, Dergisi ,2009) The Champion Health Belief Model (CHBM) was developed and revised to formulate the constructs related to breast cancer and screening behavior . It consists of 6 concepts. *Firstly,* perceived susceptibility to an illness which is defined as a

subjective perception of the risk of an illness and one's belief regarding the chances of being diagnosed in the long term or immediate future. *Secondly*, Perceived seriousness or /severity of the illness is the second construct of the HBM and refers to means one's belief about the seriousness of a medical condition and the sequence of events after diagnosis . *Thirdly* ,perceived benefits it refer to one's belief in the efficacy of the advised action to reduce health risk for the presumed action. *Fourthly*, perceived barriers it refer to the potential negative aspects or obstructions to taking a recommended health action . *Fifthly*, self-efficacy or confidence in one's ability its defined as the conviction or confidence to take health action and perform a health action. *Sixthly*, health motivation it refer to the state of eagerness aimed at realizing the behavior in sustaining and developing Health. (Khatib, 2006, Pender N 2012). HBM has been used in several studies as a theoretical framework to study BSE and other breast cancer detection behaviors. This model is useful in identifying the factors that are associated with women's beliefs about breast cancer and breast cancer screening behaviors. Where developed and revised by Victoria Champion to measure the health beliefs constructs related to breast cancer and screening behaviors. (Champion, 2008).

Statement of the problem :

Early detection measures remain the first priority for national health programmers and play a pivotal role in reducing the mortalities rate of breast cancer . Even so, breast self-examinations are the easiest and least expensive way for women to become recognizable with their normal breast tissue so that they will be able to identify any possibly dangerous changes as they age.

Research Question

- What are the female university students' health beliefs regarding breast cancer early detection screening measurements?

This study aimed to :

- Assess the female university students' health beliefs regarding breast cancer early detection screening measurements.

Research design:

- This study followed a descriptive exploratory research design.

II. Methods

The study was conduct at all of the available collage at Hafer Elbaten - governorate (faculty of applied medicine science- faculty of art - faculty of education & literature and faculty of science. A convince sample of 240 female students were included. All students who were available at the time of data collection in the previously mentioned settings were included in the study.

Questionnaire:

A structured interview schedule was developed and used for data collection .It entailed the following parts:- **Part I: Basic Data included: Socio** - demographic data and Family history of cancer.

Part II: Students Knowledge About early detection screening measures: A specifically designed self administered questionnaire sheet was developed by researchers after extensive literature review. The its consisted of *3* sections namely; knowledge about the breast cancer (consist of 6 item) knowledge about risk factors (consist of 8 item) knowledge about early detection screening measures (consist of 4 item). Each item is rated on a three point likert-types scale ranging from 18-54. All the scale items have a 3 respond with the following coding **"**YES (scores 3 point)**", "**NO (scores 2 points)**"** I don't know (scores 1 points) this score was divided into three categories as follows: ≥ 30 low. - 31 - ≥ 43 Moderate. -< 43 High. Part

Part III: Health Beliefs Questionnaire sheet: Champion's revised Health Belief Model Scale (CHBMS) which was modified and used by researcher to assess the student ' health beliefs regarding BSE. The scale contains a total of 31 items in 6 main subscales as follows: Perceived susceptibility to breast cancer consists of 5 item Perceived seriousness of breast cancer items consists of 5 item to measure seriousness of breast cancer. Perceived BSE benefits items consists of 5 item ,Perceived BSE barriers items consists of 6 item ,Self-efficacy Confidence in one's ability to perform BSE items consists of 5 item . Health motivation items consist of 5 item motivation regarding BSE. Each item was scored on 3 point Likert format with the following coding "disagree (scores 1 point)", "neutral (scores 2 points)" and "agree (scores 3 points)" RANDED FROM 31-93. Higher scores indicate stronger feelings related to that construct. All scales are positively related to screening behaviors except for barriers, which are negatively associated. The total scoring including Positive health believes - Neutral health believes - Negative health believes as the following : ≥ 52 = Negative.

- 53-74 = Neutral. - < 74 = Positive .

A pilot study
was carried-out on 20 student was excluded from the selected subjects to test the feasibility of the study, to ascertain the clarity and applicability of the tools as well as to calculate the time needed to complete them. After pilot study tools was revised, reconstructed and ready for use.

Ethical Considerations:
For each recruited subject the following issues were considered: securing the subject's informed consent after explanation of research purpose, keeping her privacy and right to withdraw at any time as well as assuring confidentiality of her data

Data Analysis
The data were organized, coded and analyzed using the Statistical package for Social Sciences (SPSS) version 20. Frequency and percentage distributions of sample characteristics were computed.

III. Results

Table (1) shows that the age of less than three quarters (70.4%) of the participants were less than twenty. Slightly more than two- thirds (64.5%) of them were single and lives in a nuclear family (76.2%). As much as 84.6% of the participants have enough monthly income.

Table (1) Distribution of the study participants according to their socio-demographic characteristics.

General characteristics	Study Participant(N=240)	
Age in years:	No.	%
≥ 20 year	169	70.40%
< 20 year	71	29.60%
Marital status		
Married	85	35.40 %
Single	155	64.50 %
Type of family		
Nuclear	183	76.20 %
Extended.	57	23.80 %
Income		
Not enough	37	15.40 %
Enough	203	84.60 %

Table (2) clarifies that, as much as 46.2% of the participants had a family history of cancer. Where, the affected one was either their mother (61.28%) or father (25.22%). the place of cancer was either breast (43.24%), or uterus (30.63%) or lung (17.12%) .

Table (2) Distribution of the study participants according to their family cancer history.

Family history	Study Participant(N=240)	
Family history for cancer (240)	No.	%
Yes	111	46.20%
No	129	53.8%
Who are suffering from cancer(111)		
mother	68	61.28%
Sister/ brother	12	10.80%
father	28	25.22%
Grandfather /grand mother	3	2.70%
Site of cancer (N=111)		
Breast	48	43.24%
Uterus	34	30.63%
Lung	19	17.12%
GIT	10	9.01%

Table (3) illustrates that 46.25% of the study participants had low level of knowledge. On the other hand, slightly less than one- third (31.25%) of them had high level of knowledge. Almost similar proportions (37.92% & 30.42%) of them had reported that their sources of knowledge were either mass media (TV) or family member, respectively.

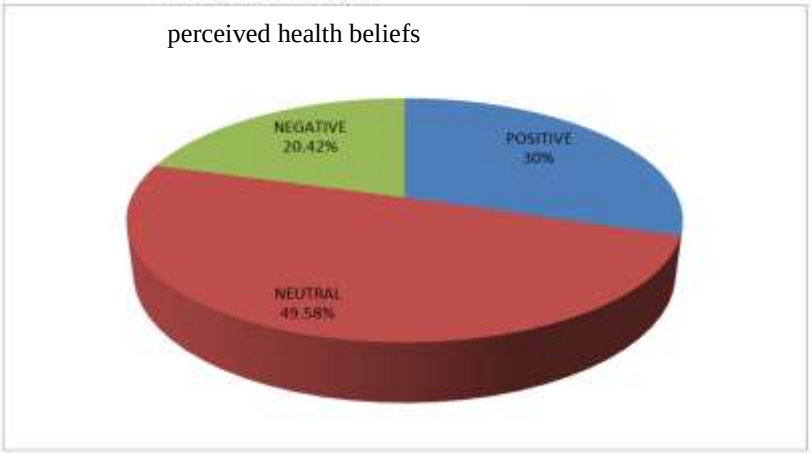
Table (3) Distribution of the study participants according to their knowledge level about breast cancer.

level of knowledge.	Study Participant(N=240)	
	No.	%
High	75	31.25
Moderate	54	22.50
Low	111	46.25

Sources of knowledge		
TV.	91	37.92
Family	73	30.42
Medical staff (doctors, nurse…)	42	17.50
combination	34	14.20

- Figure (1) clarifies that , almost one half (49.6%) of the study participants had a neutral level of perceived health believe regarding breast self examination. less than one -third (30%) of them had positively perceived the health belief regarding breast self examination.

Figure (1) Distribution of the study participants according to their total score of perceived health beliefs.



- Table (5) illustrates that, the study participant had a highly perceived susceptibility and severity to disease, barriers to breast self examination and motivation to perform (61.70%, 70.42%, 25.83% & 35.00%), respectively. Almost similar proportions of them had perceived a neutral level of benefits (57.92%) and self – efficacy (52.50%) regarding breast self examination, respectively.
-

Table (5) Distribution of the study participants according to their perceived Health Beliefs items.

variable Health Beliefs (N=240)	High		Neutral		Low	
	No.	%	No.	%	No.	%
Susceptibility	148	61.70%	42	17.50%	50	20.80%
Severity	169	70.42%	51	21.30%	20	8.33%
Benefits	70	29.16%	139	57.92%	31	12.92%
Barriers	62	25.84%	100	41.66%	72	32.50%
Self efficacy	80	33.30%	126	52.50%	34	14.16%
Motivation	84	35.00%	75	31.25%	81	33.75%

- According to **table (6),** a statistically significant correlation was detected between the participants health beliefs and their age (0.032) , marital statues (0.037) and cancer family history (0.065). Where the percentage of teen – age mothers with positive health believes (12.50%) almost doubled there in their twenties (7.91%).
- Neutral health believes level was observed among as much as 34.20 % of the single participants compared to only 15.40% of the married one. Only 26.70% of participants with cancer family history have a moderate health believes level compared to as much as 22.90 % of those without such history.

Table (6) Correlation between the participants' socio-demographics characteristics and health beliefs.

socio-demographics	Positive (N= 49)		neutral (N= 119)		Negative (N= 72)		Sign.
	No.	%	No	%	No	%	
Age in years							
≥ 20	30	12.50%	93	38.75%	26	10.83%	0.032*
< 20	19	7.91%	26	10.83%	46	19.70%	
Marital statues							
Married	25	10.40%	37	15.4	23	9.60%	0.037*
single	24	10.00%	82	34.20	49	20.40	
Family types							
Nuclear	39	16.25	92	38.33	52	21.66%	0.600
Extended	10	4.16%	27	11.25	20	8.33%	
Income							
Enough	37	15.41%	102	42.50%	64	26.70%	.0120

Not enough	12	5.00%	17	7.08%	8	3.33%	
Family history							
Yes	23	9.50%	64	26.70%	42	17.50%	0 .065*
Not	26	10.83%	55	22.90%	30	12.50%	
Types of cancer (N=111)							
Benign	8	32.00%	13	22.80%	2	6.90%	0.467
Malignant	17	68.00%	44	77.20%	27	93.10%	

- chi-square test * P < 0.05 (significant)

- Table (7) revealed, a statistically significant correlation between the participants health beliefs and their level of knowledge (0.00) , and sources of knowledge (0.06). Where 18.75% of the study participant perceived the health believes negatively have low level of knowledge. About one half of them (46.85%) of them had perceived the health believes positively, reported that their main source for knowledge about breast self examination was TV compared to only 19.81% for medical staff.

Table (7) Correlation between the participants' health beliefs and their level of knowledge .

Variable health beliefs	**Positive (N= 111)**		Neutral **(N= 75)**		**Negative (N= 54)**		**Sign.**
	No	%	N o	%	No	%	
Level of knowledge							
High level	27	11.25%	44	18.33%	4	1.67%	0.00*
Moderate	35	14.58%	19	7.92%	0	0.0 0%	
Low	10	4.17%	56	23.33%	45	18.75%	
Source of knowledge							
T.V	52	46.85%	28	37.33 %	24	44.44%	0.06*
Family	24	21.62%	26	34.67%	10	18.51%	
Medical staff	22	19.81%	9	12.00%	7	12.97%	
Combination	13	11.72%	12	16.00%	13	24.08%	

Chi-square test * P < 0.05 (significant

IV. Discussion

The present study sought to apply an extended health beliefs model (HBM) to the prediction of breast self-examination (BSE) among university student. This model is the most frequently used model for enhancing of the health beliefs assert that the relevant health behaviors will emerge if individuals perceive the disease as sensitivity, beliefs in outcome regarding the seriousness of the disease, be aware of both the benefits and disadvantage of screening and notes that there are positive motivations.(Agboola A 2009) The study revealed that , 46.25% of the study participants had low level of knowledge regarding breast self examination . This result is high in comparison to that report by (Montazeri A, 2008) , who reported that Saudi student had low level of knowledge regarding breast self examination and many women miss early detection and treatment opportunities due to lack of information. Also, this result confirmed by (Othman 2014). He found a significant number of women with advanced stages of the disease due to lack of knowledge and awareness of early detection measures. Where limited knowledge about breast cancer screening, linked by few women performed screening for early detection purposes. The reasons for these results may be the culture diversity and the women embarrassment to ask doctor about sensitive topics. Regarding source of knowledge, this study revealed that almost similar proportions (37.92% & 30.42%) of them had reported that their sources of knowledge were either TV. Or / and family member. Only 17.5% of the study participants had reported the medical staff is a source for knowledge. This study goes on line with the study of (Tsu-Yin etal, 2006) who found that, radio and TV are principal sources for receiving knowledge about BSE. On the other hand, the role of medical staff still limited and not effective. On the other hand according to (Radi S, 2013) a similar result was observed. Where the medical staff like pharmacy, doctor and nurse is a last source for receiving BSE knowledge. This study revealed that, 30.00% of the study participant perceived the health belief regarding breast self examination positively. This study agree with (Hajian S 2014) who found the same proportion of women had positive perception toward BSE and a important connection between women's attitudes and behaviors regarding health beliefs and they performing early screaming methods ageist breast cancer. The susceptibility to the disease is one of the strongest perceptions shown to influence individual to adopt healthy behaviors. This study revealed that 61.70% of the study participant perceived highly susceptibility to the disease. In this study this perception influenced by many factors as: present of genetic factors play as risk factors for the disease. Where the percent of the participants family history for breast cancer specially malignant types . Also, breast cancer until now has no defended causes and this fact make the susceptibility for disease is high for everyone. (Al-diab R, etal 2013) As regarding the seriousness of the disease, 70.42% of the study participants perceived high level of seriousness of disease that means they feel threat from breast cancer as a disease. Traditionally, in many cultures breast cancer in general and word "cancer" specially means death, especially if the participant had

history of family disease. When the seriousness became high the feeling of threat towered breast cancer as a disease becomes high so, the possibility of displaying the protective health behavior also increase. (NCI, 2009)

In the present study, more than one half (57.92%) of its participant had neutral level of benefits. Examination for participants to prevent disease. These results go on line with the study of (Nahcivan O 2003 & Farmer et al., 2007) study. Who report that, women had neutral level of benefits regarding breast self examination and not perceive cancer screening as a beneficial procedure because they believe the disease is uncontrollable and could lead to death with or without early detection. Perceived barrier refer to that obstructs the realization of the behavior or negative aspect of the behavior and is considered the strongest aspect of health believe. This study revealed that 25.84% of the study participant perceived high level of barrier. This result is congruent with the study of (Russell, 2006). He reported that his participant perceived high level of barriers to perform breast self examination especially for uneducated women due to: lack of time and lack of medical knowledge to apply the procedure and unable to feel the lesion. Self-efficacy occurs when the individual is confident in their ability to successfully perform an action. The result of this study revealed that 52.50% of the study participant perceived neutral level self-efficacy. This result go on line with (Jumah B 2013) . Who found that the study subject had a neural degree of self-efficacy? They confident in performing BSE correctly and know how to perform the procedure step by step and able to discover breast lesion at different sizes .(Jumah B 2013) Perceived health motivation is another important aspect of health beliefs models. In this study 35.00% of the study participant perceived high level of motivation. According to (**Mustafa 2015**) who found that overall BSE practices is high and reflect high level of motivation. Where majority of women wish to discover health problems early and they always seek new information to maintain they health and prevent any complication.

A Statistically significant relation was observed between the present study participants health beliefs and their age (0.032) . Where 19.70 % of them perceived negative level of health believes in their twenty. This result is in congruence with (**Maral I 2011).** Who found that all women under 40 year have low practice to preventive measure for detection of breast cancer and perceived negatively with this measure manly due to fear to detect disease in this age and the concept about breast cancer is a disease of aging .

Again , statistically significant correlation was observed subjects between health beliefs about self examination and family history (.065) was detected . Only 26.70% of participants with cancer family history have a neutral health beliefs level compared to as much as 22.9 % of those without such history . This result go on line with study of (**abo alfotouh M etal 2015)**. He reported that women with a history of breast cancer in the family have more experience and information regarding breast cancer and its of breast self examination than other women . Again, this result is supported by **(Hadi 2011 & Dalal et al., 2014)** . Who reported that most widely known risk factor among participants was family history and make the women more liable to the disease than other make the women more anxious and have fear than other. Compared to study of **(khan T , 2015)** he reported that women with a history of breast cancer in the family have positive health believe and perform BSE more regularly . The reason may be the perception of susceptibility to the disease and the knowing about relationship between genetic factors and breast cancer, so they see themselves as possessing such risk factors. In addition This study revealed that ,a statistically significant correlation between the participant health beliefs and their knowledge level (0.00).Where 18.75% of the participant who perceived the health believes negatively have low level of knowledge . This result goes on line with **(Tastans 2011).** Who reported that perceived health believed negatively toward protective measure due to lack of knowledge about the breast self examination and how to examine their breast .Moreover, a significant relation between the health belief and sources of knowledge was detected (0.06). Where 46.85 % of the study participants who perceived the health beliefs positively , reported that the main source for their knowledge about breast self examination was mass- media . compared to only 19.81 % for the role of medical staff as source of knowledge. This review highlighted the need for an intensive and in-depth breast cancer education campaigns using media and community health programmers, even with the existing good awareness of breast cancer and ensure the correct knowledge received for women.

V. Conclusion

Based on the findings of the present study it could be conclude that:

The level of the participants knowledge about breast self examination was low and they had neutral level of health believes. The correlation was detected with participants health believes and their age, family history` of cancer as well as level of knowledge.

VI. Recommendations

In view of the study findings, the following recommendation was

1- Innovative education curriculum should be adopted and the preventive screening measures should be incorporate into all health and education programs to enable women to identify knowledge about breast cancer early screening measurements in more effective and professional manner.
2- Cooperating with other societies and institutions in the Kingdom to improve medical staff behavior and identify the barrier against application of breast self-examination method and how to perform through all parts of society and age categories.
3- Replication of the present study among different group of women at different section.

References

[1]. Abo alfotouh M (2015), Using the Health Belief Model to Predict Breast Self examination Among Saudi Women. 2015:11:23
[2]. Agboola A, Deji-Agboola A, Oritogun K, ETAL (2009). Knowledge, Attitude and Practice of Breast Self Examination in Female Health Workers in Olabisi Onabanjo University Teaching Hospital, Nigeria. The International Medical Journal. 2009 ;8(1):5–10.
[3]. Akhtari Z, Juni M, Said S , etal . (2013). Beliefs and Behavior of Malaysia Undergraduate Female Students in a Public University Toward Breast Self-Examination Practice. Asian Pac J Cancer Prev. 2013;14(1):57-61
[4]. American Cancer Society. Breast cancer. (2012). Available at:
[5]. URLhttp://www.cancer.org/acs/groups/cid/documents/webcontent/003090-pdf.pdf. Retrieved on: 10 May 2015.
[6]. Al Diab R , Qureshi S. (2013). Studies on the Methods of Diagnosis and Biomarkers Used in the Early Detection of Breast Cancer in the Kingdom of Saudi Arabia (2013) . middle-east journal of scientific research (2013) ; 14 (4):532-543.
[7]. Champion V , Skinner C ,(2008). Health Belief Model : theory , research and practical . 4 ed . San Franc Son . USA : Fossey - Bass 2008: 46-65.
[8]. Dalal M. Sahar H. (2014). Knowledge, attitude and practice of breast self examination and breast cancer among female medical students in Taif Saudi Arabia . 2014 .Open Journal of Preventive Medicine; 4:(2) 69-77.
[9]. Dergisi M. (2009) . Background Health Believes Model Characteristics. Journal of breast health. 2009;5:(3) 71-79
[10]. Ferlay J, Shin H, Bray F, etal . (2014) Estimates of Worldwide Burden of Cancer . International Journal of Cancer. 2014; 127 (12): 2893-2917.
[11]. Farmer D, Reddick B, Agostino R. etal (2007). Psychosocial Correlates of Mammography Screening in Older African American Women. Oncology Nursing Forum. (34): 117- 23.
[12]. Glanz K, Rimer B , Lewis F, etal .(2008). Health Behavior and Health Education theory , Research and Practice . san fransisco wiley and sons. .(2008).
[13]. Hadi M. (2011). Awareness and Knowledge of Breast Cancer and Mammography among a Group of Malaysian Women in Shah Alam Asian :Pacific Journal of Cancer Prevention; (12):2537.
[14]. Hajian S , Tilaki K , Auladi S. (2014). Health Belief Model and Practice of Breast Self-Examination and Breast Cancer Screening in Iranian women. 2014 Jul;21(4):429-34.
[15]. Jwad k , Wafa M,(2012). Knowledge, Attitude and Practice Towards Breast Cancer and Breast Self Examination in Kirkuk university, iraqu . Asian Pacific Journal of Reproduction; 1(4): 308-311
[16]. Jumah B. (2013).Knowledge & Practice of Saudi Women about the Prevention of Breast Cancer. International Journal of Applied. 2013;3(2):8-13.
[17]. Khan T, Leong J, Ming L, (2015) .Association of Knowledge and Cultural Perceptions of Malaysian Women with Delay in Diagnosis and Treatment of Breast Cancer: a Systematic Review. 2015;16(13):5349-57
[18]. Khatib O ., Modjtabai A.(2006) .Guidelines for the Early Detection and Screening of Breast Cancer. Technical Publications Series 30. USA: WHO regional office of eastern Mediterranean, 2006 ; 2 :(3) 27-31.
[19]. Montazeri A, Haji-Mahmoodi M, Jarvandi S, etal. (2008). Breast Self-Examination: Knowledge, Attitudes, and Practices Among Female Healthcare Workers in Tehran, Iran. Breast. 2008; 4: (22): 220- 225
[20]. Maral I , Budakoglu I , Ozaydin A , etal . (2011) Behavior Towered Methods of Breast Cancer Early Detection in Women Over Years in Ankara, Turkey. journal of cancer educ. 2011; 24:127-128
[21]. Mostafa A , Alaa A. (2015). Using the Health Belief Model to Predict Self Examination Among Saudi Women .public health 2015;15:1163.DOI: 10.1186/s12889-015-2510-y .
[22]. Madanat H, Merrill R. (2002) Breast Cancer Risk Factor and Screening Awareness Among Women Nurses and Teachers in Amman Jordan. Cancer Nurs journal . 2002;25(4):276–82.
[23]. National Cancer Institute (2009). available at :http://www.cancer.gov/ Retrieved July 22, 2009.
[24]. Nahcivan O, Secginli S (2003) Attitudes and Behaviors towered Breast Cancer Early Detection : using the health belief model as a guide cumhuruiyet university school of nursing journal 2003: 7:3-28.
[25]. Othman A, Ahram M, Al-Tarawneh M, etal. (2015). Knowledge, Attitudes and Practices of Breast Cancer Screening Among Women . Health Care Women international journal . 2015;36 (5) :578–92.
[26]. Pender N , Murdaugh C , Persons M . (2012) Health Promotion in Practice. 4 ed. Upper saddles river/ NJ, USA: Pearson Education ;2012.
[27]. Radi S, (2013), Breast Cancer Awareness Among Saudi Females in Jeddah. College of Nursing, King Saud Bin Abdulaziz University for Health Sciences Jeddah, Saudi Arabia
[28]. Russell K , Perkins S.(2006). Socio-Cultural Context of Mammography Screening use. Oncology Nurs forum . 2006;33:105-112
[29]. Tastan S, Iyigün E, Kılıc A, (2011). Health Beliefs Concerning Breast Self-Examination of Nurses in Turkey. Asian Nursing Research 2011; 5(3):151–56.
[30]. Tsu-Yin W, Brady M, (2006). Health Beliefs and Practices Related to Breast Cancer Screening in Filipino, Chinese and Asian-Indian women Cancer Detection and Prevention 30 (2006) 58–66
[31]. World Health Organization. (2015); Facts about Cancer 2014. Available at: URL http://www.who.int/features/factfiles/cancer/en/index.html. Retrieved on: 7 May 2015.
[32]. World Health Organization, International Agency for Research on Cancer. Global (2013). Section of Cancer Information. 2013. Available at URL http://globocan.iarc.fr/factsheet.asp. Retrieved on: 8 May 2015.