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Impact of health education Program to word female about Breast self-examination at Omdurman region Sudan

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Abstract:

Introduction: , performing breast self-examination (BSE) has an important role in the early detection of breast cancer, facilitating early diagnosis and reduce women's morbidity and mortality related to Ca breast.

Aim: To assessment the effective, efficacy and skills of health education program on breast self examination.

Methods: A quasi experimental study was conducted among low educated and illiterate female participants a were 87 female, age between 20 – 45 years, selected in Omdurman district area. (cumulative study). Intervention consisted of evaluation (literature review, topic selection), implementation (educator training, training of participants), and assessment (pretest-posttest). Data were collected using researcher-made questionnaires of breast self-examination (BSE) checklists. Data analysis was performed in SPSS version 26 using p value.

Result: In the intervention and control groups, 68(85) and 72 (81.8) participants were married, However, there was a significant difference in knowledge, practice and attitude change favoring the intervention group over the control group ($p < 0.0\ 5$)..

Conclusion: Significant improvement of women knowledge, practice and attitude toward breast self examination program.

Introduction:

Breast cancer is one of the most common types of cancer among women in developing, developed or less developed countries lead to high mortality. (Allagoa and Uwaezuoke 2017). Preventive program measures, such as routine screenings and behaviors like breast self-examination play main role in facilitating early diagnosis of breast cancer. (Allohaibi, Yousef and Joudah 2021) An increase of access to knowledge about early detection techniques of breast cancer can reduce this mortality rate(Bhamba, and Rawade, 2022). Country case examples are presented to founders the challenges and prospects of implement successful early detection programs for breast cancer, and the complex interaction of barricades and facilitators to achieving this program in real-world settings . . (Bouya and Balouchi, 2018) Awareness of breast cancer, has made a positive impact on recognition and screening of breast cancer. (Ginsburg and Yip, 2020). Breast self- examination (BSE) is a process whereby women examine their breasts regularly to detect any abnormal swelling or lumps in order to seek promote medical attention. (Akram and Iqbal, 2017**)** Most than 1.15 million of breast cancer diagnoses are make worldwide per year and 502.000 female died from breast cancer yearly. (Ayran, Fırat and Kucukakca, 2017)The incidence was 2.09 million and 626,679 CSMR (case specific Mortality rate) reported in 2018. (Mehrotra & Yadav, 2022). It is also the leading cause of death from malignant tumors among female in developing countries. (Sadoh, and Osime, 2021). In general, breast cancer accounts for more than 30% of gynecological cancers and is the second cause of death after lung cancer (Zhang and Peng, 2019) The development of breast cancer is a complex and multi-step process that includes many types of cells, so the prevention represents a real global challenge in the world. Early screening for breast cancer reduces the mortality rate of affected women and improves their quality of life. (Zaidi & Cherif, 2019). Previous studies indicated that conducting breast self-examination to detect breast cancer early led to long life expectancy and improved quality of life for healthy persons and decrease financial burden. (Rim and Allaire, 2019, Kunst and Long, 2020). Clinical and BSE (breast self-examination) and Depiction mammography are accepted applicative practicing can conduce to betimes detect of cancer in without symptoms women and thus degraded pathogenesis and fatality linked with breast cancer. (Allagoa and Uwaezuoke, 2017).

Justification:

Breast cancer is one of the most common cancers in women worldwide, In general terms, it is the second most cause of cancer-related death after lung cancer, approximately 570,000 mortalities in 2015. (İzci and İlgün, 2016). Over 1.5 million women are diagnosed with breast cancer every year throughout the world (Zaidi & Cherif, 2019) .

The evidence of primary cancer prevention is slowly growing; its strategies cannot yet be implemented in clinical prevention programs, therefore, secondary prevention, early detection of cancer, remains the main focus for reducing breast cancer mortality. This is especially true because of the proven relationship between mortality and size of the primary tumor as well as the status of the axilla.

General objective:

To assessment the effect of interventional health education program about breast self examination toward prevention of breast cancer.

Specific objective:

1. To assess the knowledge, attitude and practices of females toward prevention of breast cancer, mainly self-examination of the breast.
2. To determine prevalence of breast problems among the females.

Material and Methods:

Research design**:** A quasi **e**xperimental study was conducted among low education and uneducated female aged between 20 – 45 years selected in Omdurman district area. in this area there are large number of kababesh tribe most of girls married in small age, some of them not go to school. the study was carried out in three phases; pre-intervention phase, intervention phase, and post-intervention phase. A total of 87 women were included. Interventional health education in the form of a lecture, pamphlets, application on breast model (demonstration of the five step method of breast self examination using audio-visual aids).

Setting:

The study carried out at Dar Almouminat for memorization of the Qur'an (Althawra Sabreen region 37)

Target Population:

All females who live in selecting area (age between 20 - 45 years) during the study period**.**

Sampling: all female attended the program of breast self examination were include**.** (87 female cumulative study)..

data collection:

The questionnaire in pre phase, they took an hour, then implementation phase, were collect data through the same questionnaire after two month post program.

Tools of data collection:

Data were obtained through the fallowing tools:

Questionnaire sheet:

Data was collected by using structured and validated questionnaire, this questionnaire was developed and constructed by researcher to assess a women's knowledge toward breast self examination it was constructed base on review of female literature.

The Questionnaire consisted of the following tools:

Tool 1: Demographic data preformed consisted of age, marital status education and occupation of women, income of family, family history and sources of information on BSE..

Tool 2: Multiple Choice Questions (MCQ) was developed to assess the knowledge on BSE.

Tool 3: Was an observation checklist of breast self examination technique to assess the women performance right technique of breast self examination.

Tool 4: The health education program based on Lesson plan with power point presentation given for validation contained risk factors for breast cancer and who to perform procedure.

Method of data collection:

This study was carried in four phases:

Pre test phase. Assess the women's knowledge and practice about breast self **exam**

Education program planning phase:

This program was designed using the base line information gathered in pre test phase. It was developed base the light of the most recent pretend literature. This program was tested for validity by expertise from medical surgical nursing and community health nursing.

Implementation phase:

The women divided into small group (6 groups) each group contain 14 -15 women. An educational program was presenting in clear and concise language and focused on the point learning using different teaching method.

Evaluation phase: the effect of the developed education program was evaluate after implementation of program.

Analysis:

Data were analyzed using SPSS package version 26

Result:

Table 1

Scio demographic data

	Variable	Control	Experimental	
Age (year)	Below 20	14(17.5)	17 (19.3)	0,00
	20 – 30	28(35)	22 (25)	
	26 – 30	4(5)	5 (5.7)	
	31 – 45	44(55)	43 (48.9)	
Education	Yes	63(78.75)	73 (83)	0.00
	No	27(33.75%)	13 (14.8)	
Education level	Illiteracy	17(21.25%)	14 (15.9)	0.46
	Primary	31(38.75)	37 (42)	

	intermediate	25(31.25)	19 (21.6)	
	S secondary	15(18.75)	14 15.9 ()	
	Graduated	5(6.25)	3 ()	
Marital status	Married	68(85)	72 (81.8)	0.00
	unmarried	22(27.5)	15 (17.2)	
Income	Enough	27(33.75)	34 (38.6)	0.04
	Not enough	63(78.75)	53 (60.2)	

50% age between 31 – 50 years while 5 % their age between 26 – 30, 89% of female included of study were married and 60% of them low income, 83% educated and majority of them from primary school. There is significant in income between experimental and control group.

Table 2

Female History

	Cases						
	Valid		Missing		Total		
	N	Percent	N	Percent	N	Percent	P value
Ca breast * degree of relation	3	3.4%	84	96.6%	87	100.0%	0.306
Ca breast * menarche	87	100.0%	0	0.0%	87	100.0%	0.229
Ca breast * number of delivery	69	79.3%	18	20.7%	87	100.0%	0.159
Ca breast * age when first pregnancy	66	75.9%	21	24.1%	87	100.0%	0.095
Ca breast * number of babies	71	81.6%	16	18.4%	87	100.0%	0.158
Ca breast * breast feeding	66	75.9%	21	24.1%	87	100.0%	0.829
Ca breast * duration for breast feeding	65	74.7%	22	25.3%	87	100.0%	0.152
Ca breast * taken hormone	87	100.0%	0	0.0%	87	100.0%	0.080
Ca breast * duration for hormone taken	4	4.6%	83	95.4%	87	100.0%	0.019
Ca breast * take contraceptive method	66	75.9%	21	24.1%	87	100.0%	0.216
Ca breast * duration for taken contraceptive method	22	25.3%	65	74.7%	87	100.0%	0.064

In family history relation between age when first pregnancy, taken hormone, duration for hormone taken and duration for taken contraceptive method is significant.

Table 3

Practical Summary

	Cases						
	Valid		Missing		Total		
	N	Percent	N	Percent	N	Percent	P value
Do you do BSE monthly * time for do BSE	44	50.0%	44	50.0%	88	100.0%	0.043
Do you do BSE monthly * Position for do BSE	22	25.0%	66	75.0%	88	100.0%	0.026
Do you do BSE monthly * Satiable tools for BSE	41	46.6%	47	53.4%	88	100.0%	0.320
Do you do BSE monthly * Number of BSE steps	11	12.5%	77	87.5%	88	100.0%	0.00
Do you do BSE monthly * Type of breast exam	9	10.2%	79	89.8%	88	100.0%	0.00
Do you do BSE monthly * Is the breast self exam important	57	64.8%	31	35.2%	88	100.0%	0.268

Do you do breast self exam monthly significant with time for doing breast self exam and position for doing breast self exam.

Table 4

Descriptive Statistics practical

	Go to Dr	Percent	Valid Percent	Cumulative Percent
What do when you see	44	50.0	72.1	72.1
secretion or peels from nipple	17	19.3	27.9	100.0
What do when feel pain in breast	41	46.6	50.0	50.0
What do when you fine foreign body	39	44.3	100.0	100.0

50% or near that said we go to the doctor when fine foreign body, secretion or feeling pain in breast

Table 5
Compare between pre and post intervention program

	Experimental	Percent	Control	Percent	P value
you do breast exam	10	11.2	70	78.7	.018
Manual breast exam	5	5.6	78	87.6	.030
You do exercise	5	5.6	57	64.0	.383
You do BSE monthly	7	7.9	77	86.5	.097
Is BSE important	15	16.9	83	93.3	.446
Time for do BSE with menstruation	7	7.9	49	55.1	.070
Position for BSE	22	24.7	29	32.6	.050
Suitable tools	37	41.6	59	66.3	.133
Steps for BSE	00	00	39	43.8	.074

The female become more knowledgeable and skill

Discussion:

the fact that respondents at a low level of study, and first time heard about breast self exam they become more likely to be knowledgeable and practice skill in BSE. This may contribute to both a increase knowledge in BSE practice and secondary prevention in breast cancer identification, this study in line with. Uruntie they said This shows that the focus of BSE intervention programmes should focus on younger students who might not be well informed and knowledgeable about BSE. (Uruntie et al. 2024) in the present study, mean scores of attitude in the experimental group had a significant increase after the intervention, in the findings are in line with the results obtained by (Mazloomy et al. (2005). Also matched with study done on Kasab Garby and Madinat Elsalam settings in Sinnar state, during August 2015to December 2018. The community-based educational intervention, aimed at improving the knowledge of Arab women towards BC, proved to be effective in raising awareness of the study population. Further efforts are required to ascertain that this augmented awareness is retained in the long term and translated into required health behavior changes.(Amina 2018).

(After one month of the breast self-examination program, all women have sufficient information about how to perform a breast self-examination and positioning when do exam side line, standing and when showering, support by study in last decade per Abiodun, said Breast awareness provides women with some acknowledgement of the part they can play in being empowered to fight breast disease, Although, some women find it easier to perform the examination in the shower, when the

skin is soft and wet, you are more likely to examine all of the breast tissue if you are lying down.(Abiodun,, et al, 2022). All females in the study and in the population general who will get benefit of this study, this study in line with old study. McCready, et al .2005). most of female married, This was in consonance with (Yusuf, et al., 2022) in Nigeria marital status was significantly associated with knowledge and practice of BSE.

In this study, women's educational level at high secondary school 18.8% more likely to be knowledgeable with BSE than those who are illiterate. Evidence explained that training women about breast self-examination goes correspondingly with their educational level and above has a positive impact on their related knowledge and practices. (McCready, et al., 2005 and Mereta, et al. 2020). According to our study 2.3% they have breast cancer in their family and half of them were first relation. This matched to research conducted in different African nations supported this study (Asmare et al., 2021)

This could be women with a history of breast cancer performing breast self-examination at a regular basis and making them more cognizant, which in turn may lead to an earlier diagnosis of breast cancer, This matching with study done in Ethiopia (Khiyali, et al,2017).

more than 67% of women when first pregnancy their ages below 20 years old, and 4% The birth rate is more than 16 births, Most of them feed their babies from breast and 1% artificial feeding they said their children died, so the doctor asked them no breastfeeding, and indeed their subsequent children remained alive, 2% not get pregnant, 4% taken hormone more than 7 to 12 month and third of them use family planning methods. Minimum number of women underwent breast exams like U/S and mammogram due to the presence of a lump and abscess, some of them do manual breast exam to discover if there is changes in breast, most of them not take caring for their breast pre test. In addition to the tools, time in which it should be done, also learned the stages that take place in the examination process and the number of steps. To find out the extent of the information women had, questions were asked about the things that bothered them about having a breast examination like Abscess, acne, enlarge of lymph node, foreign body and discharge from breast before and after the program. We found that they had sufficient information post program to encourage them to have the examination and follow-up the doctors to do ultra sound or mammogram. This matching with study in middle nineteen century applied that Breast cancer remains a complex disease. Serial screening with mammography is the most effective method to detect early disease stage the judicious use of proficient clinical and self-breast examination can also identify small tumors leading to reduced morbidity. (Coleman and Cathy 2017). More than half of intervention group the attitude toward monthly BSE increase, this support with study done by Yeshitila, said people spend significant amounts of time using smartphones throughout the day. There is small number of women fined masses by accident. BSE once a month may contribute to women's heightened awareness of what is normal for her. Heo and Jaesung, et al., 2022). About third of women attend the program said we shall do exercise post program routinely. This support by study done in Ethiopia thy found third of women in Ethiopia practiced breast examination despite WHO guidelines advocating for this practice among all women of reproductive age (Yeshitila, et al 2021).

The community-based educational intervention, aimed at improving the knowledge of Arab women towards BC, proved to be effective in raising awareness of the study population. Further efforts are

required to ascertain that this augmented awareness is retained in the long term and translated into required health behavior changes.(Amina 2018).

Conclusion:

The knowledge and practices of women toward breast self examination for early detection abnormality were observed to be inadequate in respondents but there was a significant improvement after the intervention. Health education programs through various channels to increase the awareness and knowledge about BSE are the need of the hour. Mass media cancer education should promote widespread access to information about early detection behavior. The study based on the result of present study, it can be conducted that the implementation of health education program about breast self examination should a significant improvement of women level of knowledge and practice.

Recommendation:

We recommended there for this study program be adopted by the government, nongovernmental institutional involved in cancer research and the management of higher institutions in Sudan to improve the rate of prevention and treatment of breast cancer, which could lower the disease's morbidity and mortality rate, particularly for young female.

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