

Study to assess the effectiveness of self instruction module on knowledge and attitude regarding breast cancer and its prevention among adolescents in selected degree colleges

Abstract

Background: Cancer is uncontrolled growth and division of cells, these cells can arise from any part of the body due to exposure to carcinogens, carcinogens are any substance or matter that causes the cancer. Breast parenchymas are most vulnerable to causation of cancer. The prevalence of breast cancer is similar in both the men and women; the prevention of hazards of breast cancer demands the early detection prompt treatment, regular curative management and awareness of complication and rehabilitation. Adolescents are group of individuals who have developed secondary sexual characteristics, are in stage of dilemma due to change in physiological and psychological living, the awareness of breast cancer and its prevention can be achieved significantly, hence the present study aims to assess and bring awareness of breast cancer in adolescents by giving a self instruction module which explains the breast cancer and its prevention.

Methodology: A quasi experimental study designed to assess effectiveness of knowledge and attitude of adolescents regarding breast cancer, total 289 adolescents were selected by simple random selection from selected degree colleges, a structured questionnaire assessed for content validity index and reliability was used to collect the data on knowledge and attitude, the collected data was analyzed differential and inferential statistics for significant level of improvement in knowledge and attitude using SPSS version 20.0

Results: the study found that in pretest knowledge, attitude of adolescents were poor regarding breast cancer and its prevention, the knowledge, and attitude was significantly improved in posttest, indicating the effectiveness of self instruction module.

Conclusion: the present study designed to assess the effectiveness of self instruction module regarding knowledge and attitude of adolescents on breast cancer and its prevention and found that adolescents studying in selected degree colleges had poor knowledge and attitude, the knowledge and attitude was improved with the help of self instruction module, the study recommends that the educational program such as video teaching, structured planned teaching would bring the larger population awareness breast cancer and its prevention by early detection and management.

Keywords: breast cancer, knowledge, attitude, adolescents, effectiveness, self instruction module

Volume 9 Issue 2 - 2023

Sujata Japannavar, Sujata Vijaykumar

Department of Nursing, Himalayan University, Arunachal Pradesh, India

Correspondence: Sujata Vijaykumar, Professor & Head of Department in Community Health Nursing, Department of Nursing, Himalayan University, Arunachal Pradesh, India, Email sujatacj@gmail.com

Received: February 20, 2023 | **Published:** March 02, 2023

Introduction

Cancer is uncontrolled growth and division of cells, caused due to single clone of cells altered in limited number of gene due to oncogenics, tumors and suppressor genes. Breast cancer is malignant tumor developed from breast cells¹ it is the most common in female, than men. Cancer worldwide representing nearly a quarter (23%) of all cancers in women. Nearly 0.5 to 1% of breast cancers occurs in men. The global burden of breast cancer is expected to cross 2 million by the year 2030, with growing proportions from developing countries. According to Breast cancer.org² about 1 in 8 women will develop invasive breast cancer. The knowledge of breast cancer, its cause, diagnosis, identification and management is important for both men and women, the knowledge and attitude combines and brings the healthy outcome behavior, which helps, in better prevention of breast cancer and its progression. Hence, the present study aims to assess the knowledge and attitude of adolescents studying in degree colleges regarding breast cancer, to understand the knowledge and attitude level and to provide an instruction module that gives information on breast cancer and its prevention.

Methodology

A quasi experimental study designed for 289 adolescents studying in selected degree colleges, selected by simple random sampling technique, a structured knowledge and attitude consisting of socio-demographic and 38 knowledge and 15 attitude questionnaire framed by the researcher to assess the knowledge and attitude of adolescents. The content validity index of 87% and 88% for knowledge and attitude respectively and the reliability of 0.90 and 0.87 for knowledge and attitude respectively, the adolescent in selected degree colleges were given the questionnaire to assess the knowledge and attitude regarding breast cancer and its prevention, following which self instruction module was given to adolescent, after 30 days posttest was given to assess the effectiveness of instruction module. The analysis of collected data computed with SPSS 20.0 version for statistical interference.

Results

The present study aimed to assess the effectiveness of self instruction module on knowledge and attitude of adolescents regarding breast cancer and its prevention the results of the study are as follows:

Table 1 shows the distribution of socio-demographic variables of adolescents, majority of the 43.25% of adolescents were in age group of 16 to 18 years, the gender distribution showed male 67.47% , 39.10% were Hindu, 46.71% of adolescents were studying in pre-university, 19.37% of them were having family history of breast cancer, 84.77% of them were unmarried, 65.39% of families economic status was between Less than 100,000/- per annum.

Table 2 shows the distribution of knowledge scores of adolescents regarding breast cancer and its prevention, in pretest 88.58% of them had inadequate knowledge, 11.41% of them had moderate knowledge and none of them had adequate knowledge and in posttest none of them had inadequate knowledge, 41.52% of them had moderate knowledge and 58.47% of them had adequate knowledge signifies the effective impact of instruction module on breast cancer and its prevention (Figure 1).

Table 1 Findings related to the socio-demographic variables

S. No	Socio demographic variables	Number of adolescents	Percentage
1	Age	16 to 18 years	125
		19 to 22 years	93
		23 to 25 years	71
2	Gender	Male	195
		Female	94
		Hindu	113
3	Religion	Muslim	85
		Christian	56
		Others	35
4	Education qualification	Pre-university	135
		Under graduate	115
		Post- graduate	39
5	Family history of breast cancer	Yes	56
		No	233
6	Marital status	Married	44
		Unmarried	245
7	Family annual income per year	Less than 100,000/-	189
		100,001/- to 500,000/-	64
		More than 500,001/-	36

Table 2 Finding relating to the level of knowledge regarding breast cancer and its prevention among adolescents

S. No	Level of knowledge	Number of adolescents		Percentage	
		Pretest	Posttest	Pretest	Posttest
1	Inadequate (0 to 15 score)	256	0	88.58	0
2	Moderate (16 to 30 score)	33	120	11.41	41.52
3	Adequate (31 to 38 score)	0	169	0	58.47

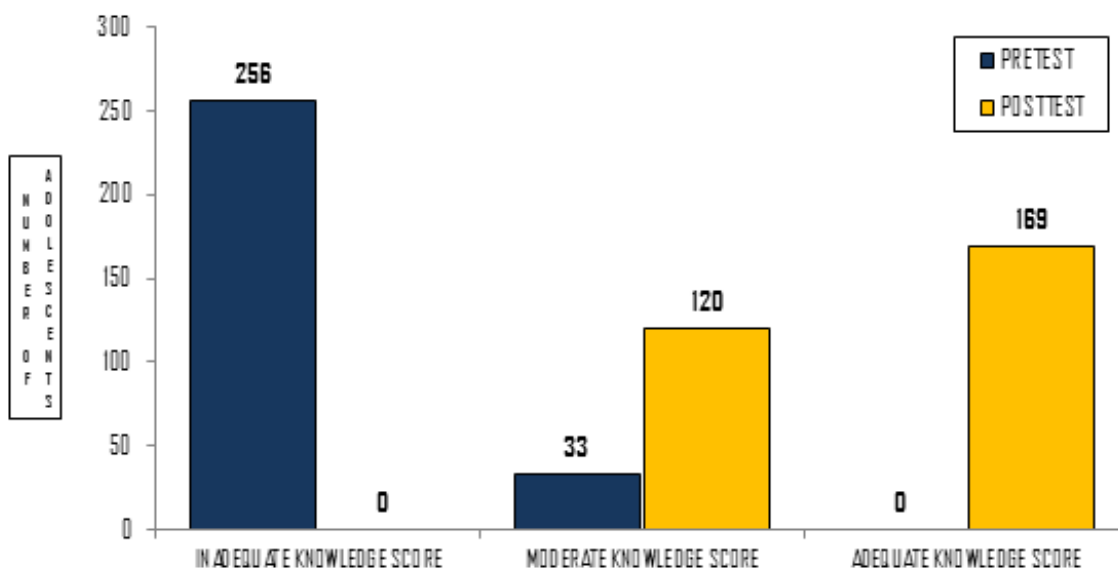


Figure 1 Bar diagram shows the distribution of number of adolescents according to their level of knowledge regarding breast cancer and its prevention.

Table 3 shows the distribution of attitude scores of adolescents regarding breast cancer and its prevention, in pretest 46.02% of them had poor attitude, 42.56% of them had moderate attitude and 11.41% had good attitude and in posttest none of them had poor attitude,

19.37% of them had moderate attitude and 80.62% had good attitude signifies the vast improvement in attitude towards breast cancer and its prevention (Figure 2).

Table 3 Finding relating to the level of attitude regarding breast cancer among adolescents

S. No	Level of attitude	Number of adolescents		Percentage	
		Pretest	Posttest	Pretest	Posttest
1	Poor (0 to 25 score)	133	0	46.02	0
2	Moderate (26 to 55 score)	123	56	42.56	19.37
3	Good (56 to 75 score)	33	233	11.41	80.62

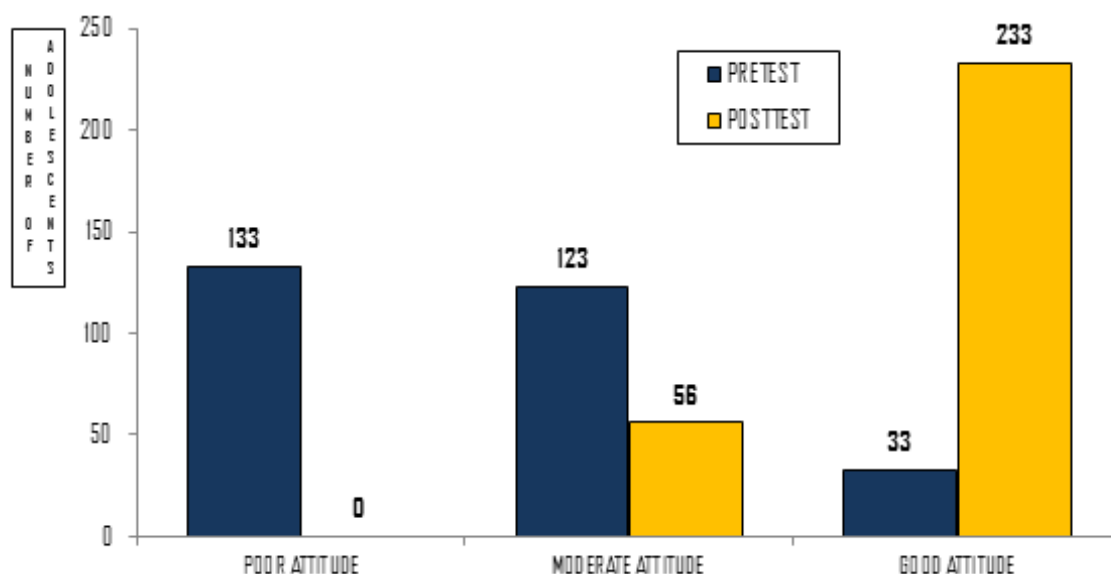


Figure 2 Bar diagram shows the distribution of adolescents according to their level of attitude towards breast cancer and its prevention.

Table 4 shows the effectiveness of self instruction module on knowledge regarding breast cancer and its prevention, for maximum score of 38, in pretest the mean±standard deviation was 15.2±1.56 and in posttest the mean±standard deviation was 35.6±1.92 the t value was 25.58 for 288 degrees of freedom, signifies that the instructional module was very effective in imparting knowledge on breast cancer and its prevention.

Table 5 shows the effectiveness of self instruction module on attitude regarding breast cancer and its prevention, for maximum score of 75, in pretest the mean±standard deviation was 48.5±1.09 and in posttest the mean±standard deviation was 72.8±1.52 the t value was 32.96 for 288 degrees of freedom, signifies that the instructional module was very effective in bringing behavioral change regarding breast cancer and its prevention.

Table 4 Finding relating to the effectiveness of self instruction module on knowledge regarding breast cancer and its prevention

S. No	Knowledge score	Max score	Mean	Standard deviation	t test value	df	Interference
1	Pretest	38	15.2	1.56	25.58	288	Significant
2	Posttest		35.6	1.92			

Table 5 Finding relating to the effectiveness of self instruction module on attitude regarding breast cancer and its prevention

S. No	Attitude score	Max score	Mean	Standard deviation	t test value	df	Interference
1	Pretest	75	48.5	1.09	32.96	288	Significant
2	Posttest		72.8	1.52			

Discussion

The present study aimed to assess the effectiveness of self instruction module on knowledge and attitude of adolescent regarding breast cancer and its prevention, a simple random sampling technique adopted, a structured questionnaire collected the data and were analyzed for statistical findings, the finding revealed that in socio-demographic variable, 43.25% of adolescents were in age group of 16 to 18 years most impulsive age to bring awareness of breast cancer and its prevention, the 67.47% of adolescents were males and 32.53% were females, 39.10% were Hindu, 29.41% were Muslim, 19.37% were Christian and 12.11% were others religion, 46.71% of adolescents were studying in pre-university, 39.79% were undergraduates and

13.49% were post graduated, 19.31% adolescents had family history of breast cancer and they were at risk of developing breast cancer, 84.77% were unmarried, 65.39% of families economic status was less than 100,000/- per annum.

The study findings related to the level of knowledge regarding breast cancer revealed that, in pretest, 88.58% of them had inadequate knowledge these findings were similar to the study conducted by Freeman AG et al.³ and Fatema Mehejabin⁴ study found that the females were lacking the knowledge regarding breast cancer and its prevention, 11.41% of them had moderate knowledge and none of them had adequate knowledge which demands the need for awareness regarding breast cancer and its prevention, this knowledge level was

improved to 58.47% of adolescents scored adequate knowledge, 41.52% scored moderate knowledge and none of the adolescents had inadequate knowledge in posttest. The attitude score in pretest showed that, 46.02% of adolescents had poor attitude these finding of study were similar to study conducted by Begum SA et al.⁵ the study depicted that women were not aware of breast cancer, having poor attitude toward breast cancer due to which they were not seeking medical help for breast issues which worsen the condition of breast cancer, 42.56% of adolescent had moderate attitude and 11.46% had good attitude towards breast cancer and its prevention, after understanding the instruction module, in posttest the attitude of adolescent scored as 80.62% of them developed good attitude, 19.37% enhanced from poor to moderate attitude and none of them were having poor attitude towards breast cancer and its prevention, this signifies that the development of early identification and early seeking of medical care in case of observation of signs of breast cancer in both gender.

Conclusion

Breasts are mammary glands, modified tissues to eject milk for the newborn. These cells are very sensitive to the genetic change, and are risk to develop malignant, early identification of deviation in the normal structure of the breast parenchyma having a significant role in management of tumors of breast. To manage well the population should be aware of the early signs and prevention of further spread of disease. Hence, the present study aimed to assess the impulsive age group, adolescent regarding their knowledge and attitude on breast cancer and its prevention to improvise their perception and management skills by providing a self instruction module that helps them to understand the disease condition by early identification, to

prevent the cause, to manage the disease and to rehabilitate. The study was successful in improving the knowledge and in bringing the desired attitude with the help of instruction module, The study also recommends that a large group of population most vulnerable such as rural, middle age women and men should be target group for future studies as these groups are not reached and are at risk of developing breast cancer, adding to this study suggest to develop the video education program to reach larger population on breast cancer awareness program.

Acknowledgments

None.

Conflicts of interest

The author declares that there are no conflicts of interest.

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