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A study to assess the effectiveness of planned teaching program (PTP) on knowledge & practice regarding breast self examination among degree college girls in district Bareilly."

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ABSTRACT

Purpose of the study:-

The purpose of the study was to early detection & improved treatment of breast cancer through planned teaching programme regarding breast self examination.

Background of the study:-

Breast is the symbol of beauty, sexuality & feminity of women. Any loss or deformity of the organ causes a considerable psychological strain on women & above the physical deformity. The outstanding obstacles in early detection & treatment of breast cancer are fear, shame & ignorance; that is why we should perform breast self-examination.

Statement of the problem

"A study to assess the effectiveness of planned teaching program (PTP) on knowledge & practice regarding breast self examination among degree college girls in district Bareilly."

Objectives of the study:

- *To find the association between pre-test knowledge & selected demographical variables.*
- *To find out the association between post-test knowledge & selected demographical variables.*
- *To assess the level of knowledge of adolescent girls on BSE.*
- *To determine the effectiveness of planned teaching program among college girls on BSE.*

Material and Methodology:-

The conceptual framework was based on modified King's Goal Attainment Model. The concepts of the theory are: Action, Reaction, Interaction and Transaction.

Pre-experimental one group pre-test post-test design was used for the study.

Purposive sampling technique was used to select 30 adolescent girls in Sahu Ram Swaroop Mahila Mahavidhayala, Bareilly. Data was collected by means of structured knowledge questionnaire and knowledge based practice questionnaire which was divided into 3 sections i.e. socio-demographic data, structured knowledge questionnaire and knowledge based practice questionnaire on BSE.

Analysis was done by using descriptive and inferential statistics in terms of frequency, percentage, mean, median, mode , standard deviation and chi- square test.

Result:

The overall pre test knowledge scores of the adolescent girls that a majority of adolescent girls 23(76.66%) had average knowledge, 1(3.33%) had good knowledge and 6(20%) had poor knowledge. Whereas in the post test, 22(73.33%) had average knowledge, 7(23.33%) had good knowledge, 1(3.33%) had poor knowledge. These findings were supported by a study conducted by A.Z Mehrnoosh Z. Akhtari who observe that 70.5% knowledge score of under graduated students were70.5% poor

The overall pre test practice score of the adolescent girls revealed that a majority of adolescent girls 22 (73.33%) had an average practice, 3 (10%) had good practice and 5(16.66%) had poor practice. Whereas in the post test majority of adolescent girls 15 (50%) of average 50% had good practice. These finding were supported through a study conducted by O.Karayurt, D.Ozmen who observed that the (98.5%) of the students not knowing how to perform breast self examination and (68.7%) had little knowledge regarding risk factors of breast cancer.

Conclusion:
The study findings concluded that the planned teaching programme on BSE was effective in improving and acquainting to the current knowledge of adolescent girls as evidenced by gain in post-test knowledge and practice scores of adolescent girls regarding BSE.

Key words:
Adolescent girls, Breast Cancer, BSE (Breast Self Examination), Mammography.

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I. INTRODUCTION

" A strong women is the one who can dare to raise her voice for the cause she believes in, & this strength lives in a corner in every women's heart , it just need to be searched"

Our relationship with the world starts from mother's breast milk. Breasts are very important organs for every woman as these are the symbols of motherhood and womanhood. So any diseases affecting breasts particularly breast cancer is important[1].

Breast cancer is the most common cancer seen in women, constituting 22% of all cancer cases worldwide. Although there is no cancer registry in Ethiopia, hospital records show that there are more than 200,000 cancer cases per year where cervical and breast cancers are the top two cancer types[2].

Over the past decade, several research findings and data sources have indicated an increasing burden of carcinoma in terms of incidence, morbidity, and mortality associated with carcinoma. Breast cancer is additionally the first explanation for cancer death among women globally, liable for about 425,000 deaths in 2010[3].

Breast Self- Examination is an ideal method for the early identification of breast abnormalities and this method can be performed by every woman at her leisure time. Due to lack of access to diagnostic facilities, especially for women in low resource setting, it is essential to empower them with BSE as a primary modality for screening. It is a cost effective, simple noninvasive, private, comfortable, easy screening method, which can be used for diagnosis of 95 percent of malignant breast tumors by monthly self-examination[4].

Breast cancer is the second leading cause of cancer related death in women. The efficacy of breast self-examination will decrease the cancer mortality. If women understand the importance of early detection and treatment, they are more likely to do breast self-examination, regular mammograms and less likely to delay seeking medical care when an abnormality is found[5].

II. MATERIAL AND METHODS

The research design used for the study was Pre-experimental; one group pre-test post –test designs. Purposive sampling technique was used to select 30 adolescent girls in Sahu Ram Swaroop Mahila Mahavidhayala, Bareilly. Data was collected by means of structured knowledge questionnaire and knowledge based practice questionnaire which was divided into 3 sections i.e. socio-demographic data, structured knowledge questionnaire and knowledge based practice questionnaire on BSE.

III. FINDINGS

TABLE 1: FREQUENCY AND PERCENTAGE DISTRIBUTION OF ADOLESCENT GIRLS ACCORDING TO SOCIO-DEMOGRAPHIC VARIABLES.

n = 30

S.No.	SOCIO-DEMOGRAPHIC DATA		FREQUENCY	PERCENTAGE
1.	**Age in year**			
	a)	18-21	29	96.66%
	b)	22-25	1	3.33%
2.	**Religion**			
	a)	Hindu	12	40%
	b)	Muslim	16	53.33%
	c)	Christian	2	6.66%
3.	**Area of living**			
	a)	Rural	3	10%
	b)	Urban	27	90%
4.	**Source of information**			
	a)	Mother	2	6.66%
	b)	Peer group	1	3.33%
	c)	Mass media	12	40%

	d)	Other	15	50%
5.	**Family history of breast cancer**			
	a)	Yes	6	20%
	b)	No	24	80%

Tables 1 reveals that:

- Maximum adolescent girls 29 (96.66%) were in the age group of 18-21 years, where as 01 (3.33) in 22-25 years.
- Maximum number of adolescent girls were Muslim16 (53.33%), Hindu were 12 (40%) and Christian were 2 (6.66%).
- Maximum number of adolescent girls were live in Urban area 27 (90%), where as 03 (10%) live in rural area.
- Maximum number of adolescent girls 28 (93.33%) had arts stream, 1 (3.33%) had commerce stream, 1 (3.33%) had science stream.
- Maximum number of adolescent girls 15 (50%) had collect the information from other sources, 12(40%) had collect the information from mass media, 1 (3.33%) had collect the information from peer group, 2 (6.66%) had collect the information from their mother.
- Maximum number of adolescent girls 24 (80%) don't had the history of breast cancer, where as 6 (20%) had the history of breast cancer.
- All adolescent girls 30 (100%) were not performed B.S.E.

Table II: Analysis and interpretation of knowledge and practice scores of adolescent girls regarding B.S.E.

Table 2: Mean, Median, Mode, Standard Deviation, and Range of pre post knowledge scores of adolescent girls regarding B.S.E.

n= 30

Area of analysis	Mean	Median	Mode	Standard deviation	Range (H-L)
Pre-test	9.56	10	10	2.48	9
Post-test	12.16	12.5	13	2.53	13
Difference	2.6	2.5	3	0.05	4

Table 2 reveals that the pretest mean knowledge score was 9.56, median was 10, mode was 10, standard deviation was 2.48 and range was 9, where as in post test mean knowledge score was 12.16, median was 12.5, mode was 13, standard deviation was 2.53 and range was 13. The overall difference in mean knowledge score was 02.6, median was 2.5, mode was 03, standard deviation was 0.05 and range was 4.

T**able 3: Mean, Median, Mode, Standard deviation and Range of practice score of adolescent girls regarding B.S.E.**

n=30

Area of analysis	Mean	Median	Mode	Standard deviation	Range (H-L)
Pre-test	10.63	11	09	2.93	12
Post-test	14.83	14.5	12	3.21	13
Difference	4.2	3.5	3	0.28	1

Table 3 reveals that, the pre test mean practice scores was 10.63, median was 11, mode was 9, standard deviation was 2.93 and range was 12, where as in post test mean practice score was 14.83, median was 14.5, mode was 12, standard deviation was 3.21 and range was 13. The overall difference in mean practice score was 04.2, medium was 3.5, mode was 3, standard deviation was 0.28 and range was 1.

Table 4: Frequency and percentage distribution of knowledge scores of adolescent girls regarding B.S.E

n=30

Knowledge score	Pre-test		Post-test	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Good (above 13)	1	3.33%	7	23.33%
Average (8-13)	23	76.66%	22	73.33%
Poor (below 8)	6	20%	1	3.33%

Table 4 reveals that, majority of adolescent girls 23 (76.66%) had average knowledge , 6(20%) had poor knowledge and 01(3.33%) had good knowledge in the pre test, where as in a post test the adolescent girls 22(73.33%) of majority had average knowledge , 1(3.33%) had poor knowledge 7(23.33%) had good knowledge in the post –test.

Table 5: Frequency and percentage distribution of practice scores of adolescent girls regarding B.S.E.

n=30

Practice score	Pre-test		Post-test	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Good (above 14)	3	10%	15	50%
Average (8-14)	22	73.33%	15	50%
Poor (below 8)	5	16.66%	0	0%

Table 5reveals that ,majority of adolescent girl 22(73.33%) had average practice, 5(16.66%) had poor practice and 3(10%) and good practice in the pre test , where is an post test all the majority of adolescent girls 15(50%) had average practice, 00(0%)had poor practice and 15(50%) had good practice in the post test.

TABLE 6: Pre-test, post-test , percentage of knowledge scores of adolescent girls regarding B.S.E.

n =30

Mean percentage of knowledge score of adolescent girls				
Groups	**Total score**	**Pre-test**	**Post-test**	**Gain knowledge**
Adolescent girls	705	50.35	64.03	13.68%

Table 6 reveals that , the mean percentage of knowledge score in the pre test is 50.35% and 64.03% in the post test; hence the total gain in mean percentage of the knowledge scores is 13.68%

TABLE 7: Pre-test, post-test, percentage of practice score of adolescent girls regarding B.S.E.

n =30

Mean percentage of practice score of adolescent girls				
Groups	**Total score**	**Pre-test**	**Post-test**	**Gain knowledge**
Adolescent girls	705	37.77	52.97	15.2%

Table 7 reveals that, the mean percentage of practice score in the pre test was 37.77 and 52.97 in the post test. Hence the total gain in the mean percentage of the practice score was 15.2%.

TABLE 8: Mean difference ($\bar{\bar{d}}$), Standard Error of difference (SE $\bar{\bar{d}}$) and paired 't' values of knowledge scores of adolescent girls.

n = 30

Mean difference	**Standard error of difference**	**Paired 't' values**	
($\bar{\bar{d}}$)	**(SE $\bar{\bar{d}}$)**	**Cal**	**Tab**
2.6	0.14	17.57	2.05

***Significant at 0.05% level**

Table 8 reveals that, the calculated value of paired 't' test was (t_{cal}=17.57) is greater than the tabulated value (t_{tab}= 2.05). **Hence H_1 was accepted.**

H_2: There is no significant relationship between knowledge and practice regarding B.S.E. among adolescent girls.

TABLE 9 : Mean Difference ($\bar{\bar{d}}$), Standard Error of difference (SE $\bar{\bar{d}}$) and paired 't' values of practice scores of adolescent girls.

n= 30

Mean difference	**Standard error of difference**	**Paired 't' values**	
($\bar{\bar{d}}$)	**(SE $\bar{\bar{d}}$)**	**Cal**	**Tab**
4.20	0.25	16.8	2.05

***Significant at 0.05% level.**

Table 9 reveals that, the calculated value of paired 't' test was (t_{cal}= 16.8) is greater than the tabulated value (t_{tab}=2.05). **Hence H_2 was accepted.**

TABLE 10: Correlation between the pre test knowledge and practice scores.

n = 30

ΣX	**ΣY**	**Karl Pearson's coefficient of correlation**		
		Cal	**Tab**	**Df**
287	319	0.98	2.05	29

TABLE 10Reveals that, the calculated value of Karl Pearson's coefficient of correlation value r=(t_{cal} = 0.98) is greater than tabulated value (t_{tab}=2.05**). Hence H_3 was accepted.**

TABLE 11: Association between pre test knowledge scores and selected demographic variables among adolescent girls.

n= 30

S.No.	Demographic variables		Good	Average	Poor	Chi- square		
						Cal	**Tab**	**Df**
1.	**Age(in years)**							
	a)	18-21	5	19	5	0.51	5.99	2
	b)	22-25	0	1	0			
2.	**Religion**							
	a)	Hindu	2	7	3	22.47	9.49	4
	b)	Muslim	3	12	1			
	c)	Christian	0	0	2			
3.	**Area of living**							
	a)	Rural	7	2	3	9.55	5.99	2
	b)	Urban	3	6	6			
4.	**Sources of information**							
	a)	Mother						
	b)	Peer group	1	0	1	86	12.59	6
	c)	Mass media	0	1	0			
	d)	Others	1	9	2			
			3	9	3			
5.	**Family history of breast cancer**							
	a)	Yes	3	0	3	34.5	5.99	2
	b)	No	8	13	3			

Significant at p<0.05 level

Table 11 reveals that:

- The calculated chi-square value was 0.51 and was less than the tabulated chi-square value 5.99 Hence **H_1 was rejected.**
- The calculated chi-square value was 22.47 and greater than the tabulated chi-square value remains 9.49 Hence **$H_2$was accepted.**
- The calculated chi-square value was 9.55 and was less than the tabulated chi- square value remains 5.99 Hence **H_3 was rejected.**
- The calculated chi- square value was 86 and was greater than tabulated chi –square value 12.59 Hence **H_4 was accepted.**
- The calculated chi- square value was 3.45 was less than tabulated chi –square value 5.99 Hence **H_5 was rejected.**

Table 12: Association between pre test practice scores and selected demographic variables among adolescent girls.

n =30

S.No.	Demographic variables		Good	Average	Poor	Chi- square		
						Cal	**Tab**	**Df**
1.	**Age(in years)**							
	c)	18-21	5	19	5	0.51	5.99	2
	d)	22-25	0	1	0			
2.	**Religion**							
	d)	Hindu	6	4	2	98.75	9.49	4
	e)	Muslim	4	10	2			
	f)	Christian	0	0	2			
3.	**Area of living**							
	c)	Rural	7	2	3	9.55	5.99	2
	d)	Urban	3	6	6			
4.	**Sources of information**							
	e)	Mother						
	f)	Peer group	0	1	1	77.47	12.59	6
	g)	Mass media	0	1	0			
	h)	Others	2	8	2			
			3	10	2			
5.	**Family history of breast cancer**							
	c)	Yes	2	2	2	66.61	5.99	2
	d)	No	8	13	3			

- **Significant p<0.05 level**

Table 12 reveals that:

- The calculated chi- square value was 0.51 and was less than the tabulated chi- square value 5.99 Hence **H_1 was rejected.**
- The calculated chi- square value was 98.75 and was greater than the tabulated chi- square value 9.49. Hence **H_2 was accepted.**
- The calculated chi- square value was 9.55 and was greater than the tabulated chi- square value 5.99. Hence **H_3 was accepted.**
- The calculated chi- square value was 77.47 was greater than the tabulated chi- square value 12.59. Hence **H_4 was accepted.**
- The calculated chi- square value was 66.61and was greater than tabulated chi- square value is 5.99. Hence **H_5 was accepted.**

IV. DISCUSSION

The present study has been undertaken to evaluate the effectiveness of planned teaching on knowledge and practices regarding Breast Self Examination (B.S.E.) among adolescent girls studying in Sahu Ram Swaroop MahilaMahavidhayalaya.

Findings related to the selected socio-demographic variables of adolescent girl.

In the present study, the sample size of the adolescent girl chosen for the study was 30, majority of the adolescent girls 29(96.66%). Belonged to the age group of 18-21 years.Majority of the adolescent girls 1(3.33%). Belonged to the age group of 22-25 years.These findings were supported through a study conducted by Oladimeji E.K, Gwegweni T.M.J, Oladimeji .O who observed that the mean age of respondant was 34.6+_ 9.3 year with 40% of women aged between 30-39 year. This indicates that 372(61.7%) women strongly agreed that BSE is the method of screening for the breast cancer. Highest proportion 219(36.3%) report that the best time for a women to perform BSE was any time.

Findings related to the pre-test knowledge and practice scores of adolescent girl regarding B.S.E.

The overall pre-test knowledge scores of the adolescent girls that a majority of adolescent girls 23(76.66%) had average knowledge, 1 (3.33%) had good knowledge and 6(20%) had poor knowledge. Whereas in the post-test 22(73.33%) had average knowledge, 7(23.33%) had good knowledge, 1(3.33%) had poor knowledge. These findings were supported by a study conducted by A.Z Mehrnoosh Z.Akhtari who observe that 70.5% knowledge score of under graduated students were 70.5% poor.

Findings related to effectiveness of planned teaching programme on adolescent girls regarding B.S.E.

There is significant gain in knowledge score of 13.68% among the adolescent girls were exposed to the plan teaching programme. The paired value (t_{cal}=18) was greater than the tabulated value (t_{tab}=2.05). hence, it indicates that the mean gain in knowledge scores of adolescent girls who were exposed to planned teaching programme was higher than pre-test. Hence, H_1 was accepted. These findings were supported through a study conducted by U.Nitte, were the post test results revealed a significant increased in the participants mean knowledge scores as compared with the pre-test. Based on paired t-test analysis (t_{cal} = 32.2) it was concluded that after after exposing to planned teaching programme there was significant increase in the level of knowledge among adolescent girls.

Findings related to correlation between pre-test knowledge and practice scores among adolescent girl on B.S.E.

There was a positive correlation between knowledge and practice r=1 respectively based on Pearson's correlation computed value between knowledge and practice. This indicates the existence of positive correlation. Hence H_3 is accepted. These findings were supported through a study conducted by D.Dolar who confirms that there exists a positive correlation between knowledge and practice.

Findings related to the association between pre-test knowledge and practice scores and socio- demographic variables

The computed chi-square test revealed that there was statistical association for four variables, i.e. religion, area of living, sources of information, family history of breast cancer. It might be because the Muslim girls don't have much interest to know about breast self-examination. The girls living in urban areas don't have time to think regarding breast self-examination as people in urban areas are mostly engaged in different types of activities. Mostly girls knew about breast self-examination through other sources as they were very much aware of using the other sources.

Findings related to the association between pre-test practice scores and socio- demographic variables

The computed chi-square test revealed that there was statistical association for four variables, i.e. religion, area of living, sources of information, family history of breast cancer. It might be because the Muslim girls don't

have time to think regarding breast self-examination as people in urban areas are mostly engaged in different types of activities. Mostly girls knew about breast self-examination through other sources as they were very much aware of using the other sources.

V. CONCLUSION

Based on findings of the study, the following conclusions were drawn:

1. The overall pretest knowledge and practices scores about BSE was average.
2. PTP was administered to adolescent girls.
3. Post test results showed the significant improvement in the level of knowledge and practices regarding BSE.
4. There was positive correlation between knowledge and practice of the adolescent girls.

Thus it was concluded that the PTP was effective in improving the knowledge and practices of adolescent girls regarding BSE.

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ETHICAL CLEARANCE- No ethical issue

CONFLICT CLEARANCE- There is no conflict of interest exit.

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