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A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PUBERTAL CHANGES AMONG 6th & 7th STANDARD GIRLS

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Abstract: This study aimed to assess the effectiveness of planned teaching programme on pubertal changes among 6th and 7th standard girls in Shri Suresh Sharma Smarak Vidyapeeth School, Suresh Sharma Nagar, Bareilly (U.P). The objectives of the study were to assess the knowledge regarding pubertal changes among the target population, evaluate the effectiveness of the planned teaching programme, and find out the association between pre-test knowledge scores with their selected demographic variables. A quantitative research approach was adopted

A non-probability convenient sampling technique was used to select 30 participants. The data collection tool used was a structured knowledge questionnaire, and the findings revealed that initially, 60% of the respondents had inadequate knowledge scores, while 0% had adequate scores. However, after the implementation of the planned teaching programme, 86.7% of respondents had adequate knowledge scores, and none had inadequate scores.

The study also found a significant association between selected demographic variables, such as the age at menstruation started, religion, profession of mother and father, type of family, and source of information. The study concluded that the planned teaching programme was effective in improving the knowledge of the 6th and 7th standard girls regarding pubertal changes.

Key words - Pubertal changes, menstruation, Effectiveness.

I. INTRODUCTION

This research paper focuses on the physical, psychological, emotional, and behavioral changes that occur during adolescence. Adolescents view human relationships differently and may start to develop a sense of self-identity and independence. The pre-adolescent phase is a period where adolescents start questioning their home life and surroundings and may form opinions that differ from their upbringing. During puberty, rapid physical changes occur, including growth in weight and height, breast changes, appearance of pubic and axillary hair, and onset of menstruation in girls. Emotional changes, such as depression, anger, irritability, fear, and anxiety, are also prevalent during this period. Reproductive health education is crucial for pre-adolescents to encourage healthy behavior. This paper emphasizes the importance of understanding the changes that occur during puberty and the need for education to help adolescents deal with the challenges.

II. NEED OF THE STUDY

The need for the study is to provide accurate and reliable information to pre-adolescent and adolescent girls regarding their physical, emotional, mental, and social changes during puberty. Lack of knowledge regarding puberty, menstruation, and related hygiene practices can lead to physiological and emotional stress in girls. In many cultures, the onset of puberty is a significant life transition, and providing accurate knowledge can help girls manage the physical and psychological changes associated with menstruation. The study aims to help adolescents manage these changes by increasing their awareness and understanding of puberty, menstruation, and related hygiene practices. The study can also help in addressing the lack of knowledge regarding menstruation among adolescent girls. Providing education regarding the changes that occur during puberty can help girls make informed decisions and avoid risky behaviors like engaging in fights, smoking, and drinking.

III. OBJECTIVES

1. To assess the knowledge regarding pubertal changes among 6th and 7th standard girls.
2. To evaluate the effectiveness of a planned teaching programme on pubertal changes among 6th and 7th standard girls.
3. To find the association between pre-test knowledge score with their selected demographic variables among 6th and 7th standard girls.

IV. HYPOTHESIS

H0: There is no significant association between the knowledge of 6th & 7th standard girls with their selected demographic variables.

The research hypothesis H0 started in the study is accepted since there is no significant association between the knowledge of 6th & 7th standard girls with their selected variables at $P<0.05$ level.

H1: There is significant difference between pre-test and post-test knowledge of 6th & 7th standard girls.

The research hypothesis H1 proposed in the study was accepted since there is a significant difference between pre-test and post-test knowledge of 6th & 7th standard girls at $P<0.05$ level. Therefore, the research hypothesis H1 is supported.

V. REVIEW OF LITERATURE

The investigator carried out an extensive review of literature on the researcher's topic in order to gain deeper insight into the problem as well as to collect the maximum amount of relevant information for building up the present study.

The literature of the study is organized under the following headings: -

- Review of literature related to knowledge and attitude regarding pubertal changes.
- Review of literature related to effectiveness of planned teaching programme regarding pubertal changes.
- Review of literature related to knowledge and perception of school children regarding pubertal changes.

- Review of literature related to awareness regarding pubertal changes.

I. REVIEW OF LITERATURE

Mr. Dhiraj Salve (2017) conducted a quasi-experimental study to assess the effectiveness of planned health teaching on knowledge about changes during puberty among adolescents (boys & girls) residing in selected area of pune city. The sample for the present study was comprised of 50 adolescent girls from 7th, 8th& 9th standard residing in selected area, tool used for data collection was Questionnaire. Majority that is 29 (58%) sample had poor knowledge & 21 (42%) had average knowledge about the changes in puberty among adolescent; After the details analyses, & based on the finding of this study the following conclusion can be drawn: - Adolescents do not have adequate knowledge about changes in puberty which leads to many problems during this reproductive life. It shows that significant increases in the knowledge after the administration of planned health teaching. Thus, it was concluding that the planned health teaching on changes in puberty was effective.

S. Indira, M. Radhika, Anusha I. (2018) conducted a pre experimental study was undertaken to assess the effectiveness of structured teaching programme on knowledge regarding pubertal changes among pre-adolescent girls in KNR govt. high school of Nellore District. The sample size was 60 preadolescents girls and the non-probability convenience sample technique was used for selection of subjects.
The finding of the study revealed that effectiveness of STP on knowledge regarding pubertal changes among 60 pre-adolescent girls, in pre-test, 43 (71.6%) had inadequate knowledge & 17 (28.4%) & moderating adequate knowledge. whereas in post-test 34 (56.7%) had moderately adequate knowledge. Source of health information had significant association with knowledge regarding pubertal changes. The structured teaching programme is found to be effective in knowledge regarding pubertal changes in pre-adolescent girls.

Shetty P. Asha, Souza D. Priya Renita, Babu Christy, john Delna, Poojary D Chettans (2018) conducted a descriptive survey design was used to assess the knowledge of school aged girls regarding pubertal changes. A non-probability purposive sampling technique was used to select the 100 subject from a private higher primary school at Manalure. The data was collected by using the structured knowledge questionnaire. study results revealed that 41% of girls of girls had inadequate knowledge regarding & 1% had adequate knowledge regarding pubertal changes & knowledge was associated with age, religion & those who had received previous information regarding pubertal changes. Study concludes that even through school aged girls have some knowledge regarding pubertal changes but it is not sufficient to overcome the stress faced by them. They must be adequately educated to have a balanced life during puberty.

II. RESEARCH METHODOLOGY

The participants of the study were 6th and 7th standard girls from a selected school in the urban area of a city. The sample size for the study was determined using the formula:

$$n = \frac{(Z_{\alpha/2}+Z_{\beta})^2 \times (P_1+Q_1+P_2+Q_2)}{(P_1-P_2)^2}$$

where n is the sample size, $Z_{\alpha/2}$ and Z_{β} are the critical values of the standard normal distribution corresponding to the level of significance and power of the study, respectively, P_1 is the proportion of girls with adequate knowledge in a similar study, P_2 is the proportion of girls with inadequate knowledge, $Q_1 = 1 - P_1$, and $Q_2 = 1 - P_2$.

The study was conducted in two phases: pre-test and post-test. A structured questionnaire was used for data collection, which consisted of two parts. Part one was related to the demographic information of the participants, and part two consist of 30 multiple-choice questions related to the knowledge of pubertal changes. The questionnaire was prepared after an extensive review of the literature and was validated by a panel of experts.

A planned teaching program was designed based on the needs assessment of the participants. The program was delivered to the participants in the form of interactive sessions, which included audio-visual aids, group discussions, and demonstrations. The program was conducted over a period of three days, with two hours of sessions each day.

The pre-test was conducted before the intervention, and the post-test was conducted 30 days after the completion of the teaching program. The data collected were analyzed using descriptive and inferential statistics. The statistical package for the social sciences (SPSS) version 23 was used for data analysis. The significance level was set at $p < 0.05$.

III. DEVELOPMENT OF TOOL

Developing a tool for a research paper involves several steps, including preparing a structured questionnaire, conducting a pilot study to test the reliability and feasibility of the tool, obtaining permission from relevant authorities, and administering the tool to the targeted sample.

In this research, a structured questionnaire consisting of 30 objective type questions was prepared through a thorough review of literature, including books, journals, internet expert opinions, personal experiences, and discussions with experts. The questionnaire was designed to address the specific research problem and objectives of the study.

To test the reliability and feasibility of the tool, a pilot study was conducted. The study involved administering the questionnaire to 10 students from Bedi international school, Bareilly, Uttar Pradesh. The sample size was appropriate for a pilot study, and permission was obtained from the relevant authorities before conducting the study.

During the pilot study, the researcher explained the topic to the participants and assessed the confidentiality of their responses. The questionnaire was then administered to the participants, and the data was analyzed. The results showed a high positive correlation (R=0.9) between the responses, indicating that the tool was reliable and practicable for the study.

In conclusion, the development of a tool for a research paper involves several crucial steps, including preparing a structured questionnaire, conducting a pilot study, obtaining permission, and administering the tool to the targeted sample. This process ensures that the tool is reliable and feasible for the study, leading to accurate and meaningful results.

IV. DESCRIPTION OF TOOL

The tool used in this research paper consists of two sections. The first section focuses on demographic data and includes questions related to the menstruation, religion, profession of the mother and father, type of family, and source of information regarding pubertal changes among 6th and 7th standard girls. This section aims to collect background information about the participants that may help in understanding the relationship between their demographic characteristics and knowledge of pubertal changes.

The second section of the tool is a knowledge questionnaire that aims to assess the pre-test and post-test knowledge of pubertal changes among 6th and 7th standard girls in a selected school of Bareilly (UP). This section consists of a total of 30 objective-type questions related to pubertal changes. The questions were developed with the help of a literature review, including books, journals, internet sources, and expert opinions, as well as personal experiences and discussions with experts. The questions were designed to assess the girls' understanding of the physical and emotional changes that occur during puberty.

A pilot study was conducted to test the reliability of the tool and the feasibility of the study. The pilot study was conducted with 10 students from Shri Suresh Sharma Smarak Vidyapeeth School, Suresh Sharma Nagar, Bareilly (U.P) who met the selection criteria. The researcher obtained permission from the relevant authorities prior to conducting the study, and the topic was explained to the participants. The tool was administered to the participants, and the data were analyzed. The results of the pilot study showed high positive reliability (R=0.9) and practicability for the study.

Over all, the tool used in this research paper was carefully designed to collect relevant data and assess the knowledge of pubertal changes among 6th and 7th standard girls. The inclusion of a pilot study helped to ensure the reliability and feasibility of the tool, and the use of objective-type questions made the data analysis straightforward.

V. SCORING PROCEDURE

The scoring procedure for the knowledge questionnaire on pubertal changes is as follows:

Each correct answer will be given 1 mark, and each incorrect or unanswered question will be given 0 marks.

The total score for each student will be calculated by adding up the scores of all the questions answered correctly.

Based on the total score, the level of knowledge of each student will be categorized into three levels: adequate, moderate, and inadequate. The score ranges for each level are as follows:

- Adequate: 21-30
- Moderate: 11-20
- Inadequate: 1-10

This scoring procedure will helping in analyzing the knowledge level of the students and identifying the areas where more emphasis is required.

VI. ANALYSIS AND INTERPRETATION OF DATA

To assess the knowledge regarding pubertal changes among 6th & 7th standard girls, a structured questionnaire consisting of 30 objective type questions was used. The total sample size was 30 girls from Shri Suresh Sharma Smarak Vidyapeeth School, Suresh Sharma Nagar, Bareilly (U.P). The data was collected before and after a planned teaching program on pubertal changes.

The results of the study showed that the mean pre-test knowledge score was 11.63 out of a maximum score of 30, indicating inadequate knowledge regarding pubertal changes among the girls. However, after the planned teaching program, the mean post-test knowledge score significantly improved to 23.30 out of 30, indicating adequate knowledge regarding pubertal changes. The paired t-test was used to compare the pre-test and post-test scores, which showed a statistically significant difference ($p<0.05$).

In terms of demographic variables, the study found that there was no significant association between the pre-test knowledge score and the girls' age, religion, type of family, or source of information. However, there was a significant association between the pre-test knowledge score and the profession of the father ($p=0.038$). Girls whose fathers were engaged in professional work had higher pre-test knowledge scores than girls whose fathers were engaged in non-professional work.

Overall, the study demonstrated the effectiveness of the planned teaching program in improving the knowledge of pubertal changes among 6th & 7th standard girls. The study also provides insights into the demographic factors that may influence girls' knowledge of pubertal changes, highlighting the importance of addressing these factors in future educational interventions.

The analysis of data is based on the objectives of the study:

Section 1: Description of demographic Performa.

Section 2: Effectiveness of a planned teaching programme on pubertal changes among 6th and 7th standard girls

Section 3: Association between the pretest knowledge with their selected demographic variable**.**

SECTION 1: DESCRIPTION OF THE DEMOGRAPHIC PERFORMA

Table 1: Description of sample characteristics in terms of frequency and percentage

N=30

CHARACTERISTICS	CATEGORY	RESPONDENTS	
		NUMBER	PERCENT
Menstruation status	**a)** Yes **b)** No	19 11	**a)** 63.4% **b)** 36.6%
Religion	**a)** Hindu **b)** Muslim **c)** Sikh **d)** Christian	29 1 0 0	**a)** 96.7% **b)** 3.3% **c)** 0% **d)** 0%
Profession of mother	**a)** Private job **b)** Government job **c)** House wife **d)** Other	2 2 26 0	**a)** 6.6% **b)** 6.6% **c)** 86.8% **d)** 0%
Profession of father	**a)** Private job **b)** Government job **c)** Self employed **d)** Other	13 6 6 5	**a)** 43.4% **b)** 20% **c)** 20% **d)** 16.6%
Types of family	**a)** Nuclear family **b)** Joint family **c)** Extended family	12 16 2	**a)** 40% **b)** 53.4% **c)** 6.66%
Source of information	**a)** Mass media **b)** Family members/friends **c)** School teachers **d)** Health professionals	9 4 16 1	**a)** 30% **b)** 13.3% **c)** 53.4% **d)** 3.3%

SECTION 2: EFFECTIVENESS OF A PLANNED TEACHING PROGRAMME ON PUBERTAL CHANGES AMONG 6TH AND 7TH STANDARD GIRLS

Table 2: Comparison of mean pre-test and post –test knowledge score. (n=30)

Level of knowledge	Mean	Standard deviation	Df	Calculated value(t)	Table value	Level of significant
Pre-test	10.766	2.800	29	1.059	2.05	Not significant
Post-test	23.1	2.855				

Table 2, shows that the mean pre-test knowledge score was 10.766 and mean post-test knowledge score was 23.1. The difference between pre-test and post-test knowledge score was statistically not significant.

Hence it was inferred that there was an increase in the level of knowledge after planned teaching programme regarding pubertal changes among 6th & 7th standard girls. So, the research hypothesis was rejected.

Table 2: Effectiveness of structured teaching programme by comparing pre-test and post-test level of knowledge score regarding pubertal changes among 6th & 7th standard girls in selected schools of Bareilly (U.P).

Level of knowledge	score	Pre-test knowledge score		Post-test knowledge score	
		N	%	N	%
Adequate	21-30	0	0%	26	86.7%
Moderate	11-20	12	40%	4	13.3%
Inadequate	1-10	18	60%	0	0%

Table 2, shows that frequency and percentage distribution or respondents according to level of pretest and posttest knowledge score related to pubertal changes among 6th & 7th standard girls.

In pre-test 0% of respondent had adequate score (21-30), 40% of respondent had moderate knowledge score (11-20), and 60% had inadequate knowledge score (1-10). In posttest 86.7% of respondent had an adequate knowledge score (21-30), 13.3% of the respondent had a moderate knowledge score (11-20), 0% of the respondent had inadequate knowledge score (1-10).

Hence it referred that the majority of respondents had an inadequate knowledge in pretest knowledge score. After structured teaching programme there was an increase in knowledge of the respondents who were exposed to structured teaching programme.

Effectiveness of structured teaching programme by comparing pre and posttest level of knowledge score regarding pubertal changes 6th & 7th standard girls.

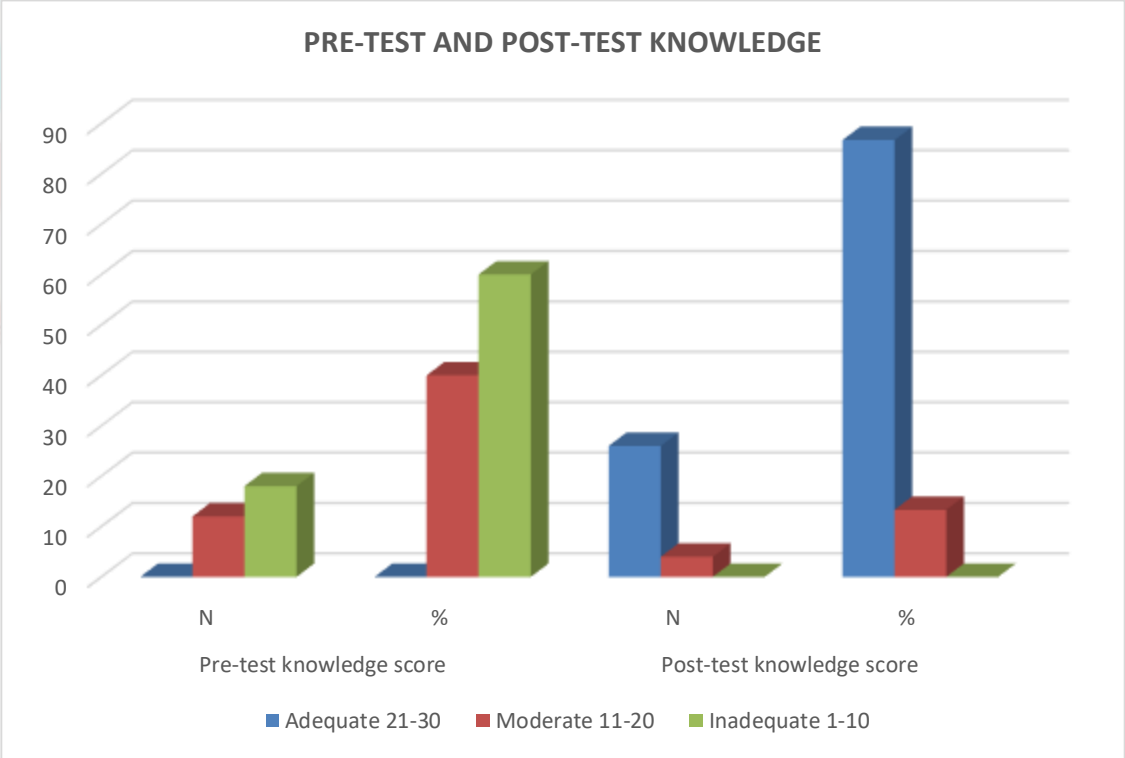

Figure 1: Percentage distribution of sample according to their pre-test and post-test knowledge score.

SECTION C: ASSOCIATION BETWEEN THE PRETEST KNOWLEDGE WITH THEIR SELECTED DEMOGRAPHIC VARIABLE.

Table 4: Association between pre-test level knowledge and demographic variable. (N=30)

S. No.	Demographic variable	Adequate		Moderate		Inadequate		Degree of freedom (df)	Calculate value (x2)	Tabulated value	Level of significance
		F	%	F	%	F	%				
1	Menstruation started a) Yes b) No	 0 0	 0% 0%	 6 6	 20% 20%	 13 5	 43.3% 16.6%	2	1.5228	5.99	#
2	Religion a) Hindu b) Muslim c) Sikh d) Christian	 0 0 0 0	 0% 0% 0% 0%	 12 0 0 0	 40% 0% 0% 0%	 17 1 0 0	 56.6% 3.3% 0% 0%	6	0.682	12.59	#
3	Profession of mother a) Private job b) Government job c) House wife d) Other	 0 0 0 0	 0% 0% 0% 0%	 2 0 10 0	 6.6% 0% 33.3% 0%	 0 2 16 0	 0% 6.6% 53.3% 0%	6	5.3585	12.59	#
4	Profession of father a) Private job b) Government job c) Self employed d) Other	 0 0 0 0	 0% 0% 0% 0%	 8 2 1 2	 26.6% 6.6% 3.3% 6.6%	 5 4 5 3	 16.7% 1.33% 16.67% 10%	6	3.7189	12.59	#
5	Types of family a) Nuclear family b) Joint family c) Extended family	 0 0 0	 0% 0% 0%	 6 6 0	 20% 20% 0%	 7 10 1	 23.3% 33.3% 3.3%	4	0.912	9.49	#
6	Source of information a) Mass media b) Family / friends c) School teachers d) Health professionals	 0 0 0 0	 0% 0% 0% 0%	 3 1 7 1	 10% 3.3% 23.3% 3.3%	 6 3 9 0	 20% 10% 30% 0%	6	2.1285	12.59	#

VII. CONCLUSION

In conclusion, the study aimed to assess the knowledge regarding pubertal changes among 6th & 7th standard girls in a selected school of Bareilly (UP) and evaluate the effectiveness of a planned teaching program on this topic. The study found that the level of knowledge was initially low but significantly improved after the implementation of the teaching program. There was no significant association between pre-test knowledge score and demographic variables such as menstruation status, religion, profession of mother and father, type of family, and source of information. The study concludes that the planned teaching program was effective in increasing the knowledge regarding pubertal changes among the students in the selected school. This study highlights the importance of providing education and awareness on puberty-related changes among young girls to ensure their well-being and healthy development.

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