



“A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge And Attitude Regarding Pubertal Changes Among Adolescent Girls In Selected School, Dehradun, Uttarakhand”.

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ABSTRACT

Puberty is the period of becoming first capable of reproducing sexually that is brought on by the production of sex hormones and the maturing of the reproductive organs, development of secondary sexual characteristics which can start as early as of 8 years to as late as 13 years of age. Puberty is the process of physical changes by which a child body matures into an adult body capable of sexual reproduction to enable fertilization. A study was done to assess the effectiveness of structured teaching programme on knowledge and attitude regarding pubertal changes among adolescent girls in selected school, Dehradun, Uttarakhand. Adolescent girls were selected through non- probability purposive sampling technique. **Result:** The pre-test knowledge score 6% of adolescent girls were having good knowledge, 64% average knowledge, 30% poor knowledge regarding pubertal changes. In post-test knowledge score 86% of adolescent girls were having good knowledge, 14% average knowledge and no one had poor knowledge regarding pubertal changes. Pre-test attitude score 88% adolescent girls were having favourable attitude and 12% unfavourable attitude regarding pubertal changes. Post-test attitude score 90% adolescent girls were having favourable attitude and 10% unfavourable attitude regarding pubertal changes. There was significant effectiveness of structured teaching programme on knowledge and no significant in attitude level.

Key words: knowledge, Attitude, Adolescent Girls, Pubertal changes.

INTRODUCTION

Puberty is the period of transition in which the childhood moves towards an adulthood on by the production of sex hormones and the maturing of the reproductive organs, development of secondary sexual characteristics were start as early as of 8 years to as late as 13 years of age¹. The word 'puberty' is derived from the Latin word pubertas, meaning adulthood. Puberty is the process of physical changes by which a child body mature into an adult body capable of sexual reproduction to enable fertilization².

A child begins to change on a biological, psychological, social, and cognitive level when they approach puberty. This is a very important and critical period in their lives. Teens who have never gone through puberty may have emotional, psychological, and physical problems. The goal of the current study was to evaluate the effects of health education for pubertals. Teens become more sexually mature as they hit puberty. They are more vulnerable to concerns with their general and reproductive health, as well as psychological issues, because they are at a transitional stage³.

The goals of the study are to assess participants' attitudes and understanding of pubertal changes, to deliver health education on these changes and hygiene, and to assess the effects of that education. Reproductive health is crucial for maintaining overall health throughout adolescence and adulthood because the degree of challenges faced throughout puberty affects both the health of females following the reproductive years and the health of future generations³.

Most young teenagers still have very little access to knowledge regarding their rights and sexual and reproductive health. This study intends to evaluate the knowledge and attitudes of school-aged teenagers regarding pubertal changes and reproductive health issues. Particularly in India, adolescent females represent a vulnerable demographic. Schools don't have appropriate health education programmes, therefore students don't get the necessary information³.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of structured teaching programme on knowledge and attitude regarding pubertal changes among adolescent girls in selected school, Dehradun, Uttarakhand.

OBJECTIVES

1. To assess the pre-test knowledge and attitude regarding pubertal changes.
2. To assess the post-test knowledge and attitude regarding pubertal changes.
3. To determine the correlation between pre-test knowledge and attitude regarding pubertal changes.
4. To determine the correlation between post-test knowledge and attitude regarding pubertal changes.
5. To find out the association between demographic variables with pre-test scoring of knowledge and attitude regarding pubertal changes.

6. To assess the effectiveness of structured teaching programme on the knowledge and attitude regarding pubertal changes among adolescent girls.

REVIEW OF LITERATURE

Santhi & Ambujam 2021, A descriptive study was conducted to assess the knowledge on pubertal changes among adolescent girls between 12-15 years of age in selected school at Karaikal. By purposive sampling technique, 108 adolescent girls were selected. The result revealed that the majority 71% adolescent girls had inadequate knowledge 23% had moderately adequate knowledge with mean and the least 6% had adequate on pubertal changes⁴.

Sivasubramanian et.al 2022, An experimental study was conducted to assess the effectiveness of Structured Teaching Programme on Knowledge Regarding Early Puberty among Girls in Visnagar, Gujarat. 60 students were selected by Using the Purposive-Sampling Technique. Data Was Collected By Using Questionnaire. The result finding shows that the Mean Pre-Test Observation Score Was 11.5% .And The Mean Post Test Score Was The 44.38%, And The Standard Deviation Was 2.50% In Pre-Test And 26.42% In Post Test Score, Also The Calculated “T” Value Was 11.38%⁵.

Research Methodology

Research Approach

Quantitative research approach was adapted in this study.

Research Design

Quasi-experimental One-Group Pre-test-Post-test design was used in this study.

Research Variables

Dependent variables: Knowledge and Attitude regarding pubertal changes among adolescent girls.

Independent Variables: Structured teaching programme.

Demographic Variables: Age, education status, religion, type of family, area of residence, diet and previous knowledge regarding pubertal changes.

Research Setting

Present study was organized in Canfield High school, Dehradun, Uttarakhand.

Population

Population consists Adolescent girls (11-16yr) who meet the inclusive criteria.

Sample

Adolescent girls (11-12yr) in selected school Dehradun,

Sample sizes

Sample size of the study was 50 students. ($N = (Z_{\alpha/2})^2 s^2 / d^2$)

Sampling techniques

Non probability purposive sampling technique was used for selecting the samples who fulfill the inclusive criteria.

Description of research tool

Section1: Demographic variables

Demographic variables includes adolescent girls consisting of age, education, religion, Types of family, area of residence, diet, previous knowledge.

Section2: Structured knowledge questionnaire

It consist 30 questions to assess the knowledge of adolescent girls regarding pubertal changes. It based on: Introduction to pubertal changes, Anatomy of female reproductive system, Different types of pubertal changes, Menstruation, Management of pubertal changes. Each domain contains an individual multiple-choice question, and the total questions are 30 in number. Each correct response, 1 mark was assigned and for incorrect response, 0 mark was assigned. 30 was maximum score and 0 was minimum score.

Section3: Attitude scale

Three points likert scale was used to evaluate the attitude regarding pubertal changes. Score 9 between 15-30 was for unfavourable attitude and 31-45 for favourable attitude.

Ethical consideration

Ethical permission will be taken from the ethical committee Narayan Swami College of Nursing. Ethical permission will be taken from the principle of Cantt Junior High School and Canfield High School. Written and informed concerned were received from each adolescent girl fulfilling the inclusion criteria. Confidentiality was maintained of each adolescent girls. Data was collected for research purpose.

RESULT:

Sociodemographic Data:

Most 68% participants were in age group of 11-13 years and 32% were in 14-17 years. Regarding education status, 68% participants studied at 7th -8th standard and 32% studied at 9th -10th standard. Regarding religion, 88% belongs to Hindu religion, 6% Muslim, 4% Christian and 2% Sikhism. Regarding type of family, 44% participants were living in joint family, 50% living in nuclear family and 6% living in extended family. Regarding area of residence, 8% were living in rural area and 98% living in urban area. Regarding diet, 34% adolescent girls were vegetarian, 54% non-vegetarian and 12% eggetarian. Regarding previous knowledge regarding pubertal changes, 22% girls had previous knowledge and 28% had no knowledge regarding pubertal changes. Regarding source of knowledge, 3% had knowledge through media, 77% had knowledge through family and 9% had knowledge through other sources.

1- To assess the pre-test knowledge and attitude regarding pubertal changes.

Table No.1: Mean, SD, median and mean percentage of knowledge regarding pubertal changes among adolescent girls.

Knowledge score	Maximum score	Range	Median	Mean \pm SD	Mean %
	30	5-21	12	12.46 \pm 3.55	41.50%

Table No.1: Shows that knowledge score regarding pubertal changes among adolescent girls total score was 30, the lowest score was 5 and the highest score was 21. The mean knowledge score was 12.46 ± 3.55 . Mean percentage of level of knowledge score was 41.50%.

Table No.2: Mean, SD, median and mean percentage of Attitude regarding pubertal changes among adolescent girls.

Attitude score	Maximum score	Range	Median	Mean \pm SD	Mean %
	45	26-41	36	35.40 ± 3.17	78.70%

Table No.2: Shows that Attitude score regarding pubertal changes among adolescent girls total score was 45, the lowest score was 26 and the highest score was 41. The mean attitude score was 35.40 ± 3.17 . Mean percentage of level of attitude score was 78.70%.

2- To assess the post-test knowledge and attitude regarding pubertal changes.

Table No.3: Mean, SD, median and mean percentage of knowledge regarding pubertal changes among adolescent girls.

(n=50)

Knowledge score	Maximum score	Range	Median	Mean± SD	Mean %
	30	15-30	26	25.42± 3.58	84.70%

Table No.3: Shows that knowledge score regarding pubertal changes among adolescent girls total score was 30, the lowest score was 15 and the highest score was 30. The mean knowledge score was 25.42 ± 3.58 . Mean percentage of level of knowledge score was 84.70%.

Table No.4: Mean, SD, median and mean percentage of Attitude regarding pubertal changes among adolescent girls.

(n=50)

Attitude score	Maximum score	Range	Median	Mean± SD	Mean %
	45	29-43	36	35.80 ±3.399	79.55%

Table No.4: Shows that Attitude score regarding pubertal changes among adolescent girls total score was 45, the lowest score was 29 and the highest score was 43. The mean attitude score was 35.80 ± 3.399 . Mean percentage of level of attitude score was 79.55%.

3- To determine the correlation between pre-test knowledge and attitude regarding pubertal changes.

There was significant low positive correlation($r=0.379$) between pre-test knowledge and attitude regarding pubertal changes.

4-To determine the correlation between post-test knowledge and attitude regarding pubertal changes

There was no significant positive correlation($r=0.198$) post-test knowledge and attitude regarding pubertal changes.

5- To find out the association between demographic variables with pre-test scoring of knowledge and attitude regarding pubertal changes.

In this study, age (4.0786), education status (7.1334) has significant association with level of knowledge regarding pubertal changes among adolescent girls and religion, type of family, area of residence, diet, previous knowledge of pubertal changes and their sources has no significant association with the level of knowledge regarding pubertal changes and adolescent girl's age (4.6354) and religion (4.6354) has significant association

with attitude level and education status, type of family, area of residence, diet, previous knowledge and their source of pubertal changes has no significant association with the level of attitude regarding pubertal changes.

6- To assess the effectiveness of structured teaching programme regarding pubertal changes.

Table No. 5- Comparison of pre-test and post-test knowledge score on pubertal changes to know the effectiveness of structured teaching programme.

(n=50)

Aspects	Max. score	Mean	SD	Mean%	Paired 't' test
Pre-test	30	12.46	3.553	41.50%	23.179
Post-test	30	25.42	3.586	84.70%	
difference		12.960			

Table No. 5- In this study, the mean pre-test knowledge was 12.46 ± 3.553 , the mean post-test knowledge found to be 25.42 ± 3.586 . However, the difference was proves as mean 12.960. Further the paired t-test value (23.179) shows statistical significance at the level of $p < 0.05$, establishing the effectiveness of structured teaching programme. Therefore the research hypothesis accepted.

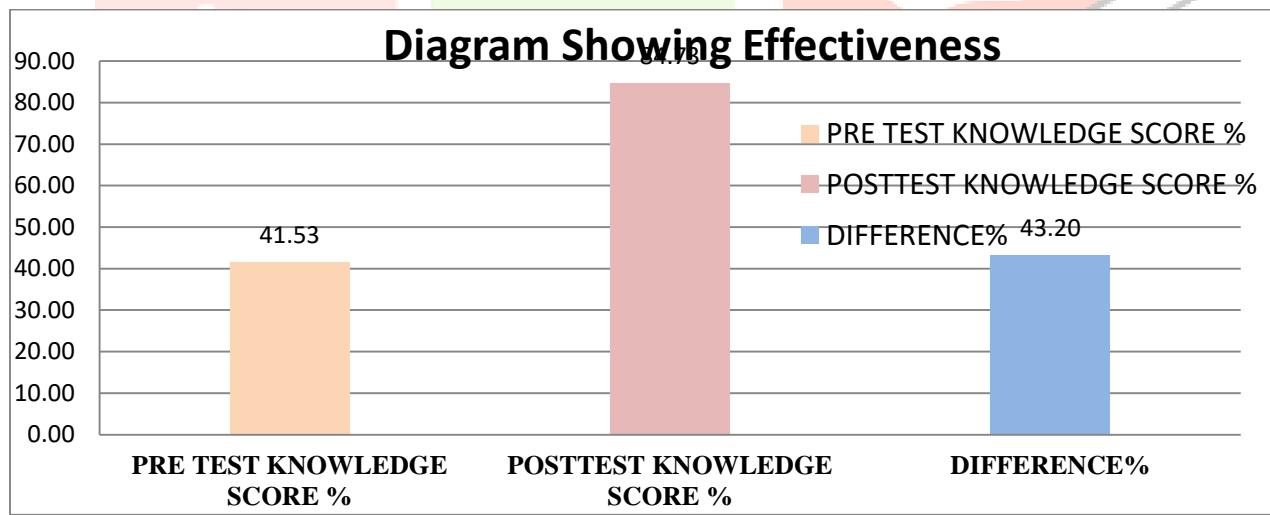


Figure 1- Bar graph representing effectiveness of structured teaching programme in attitude regarding pubertal changes

Figure no. 1: Shows that before structured teaching programme 41.53% adolescent girls had good knowledge regarding pubertal changes and after 84.73% adolescent girls had good knowledge about pubertal changes. So, the difference between pre-test knowledge and post-test knowledge was about 43.20%.

Table No.6- Overall pre-test and post-test Attitude Level on pubertal changes to know the effectiveness of structured teaching programme

(n=50)

Aspects	Max. score	Mean	SD	Mean%	Paired 't' test
Pre-test	45	35.4	3.169	78.70%	0.701
Post-test	45	35.8	3.399	79.60%	
Difference		0.400			

Table No. 6: In this study, the mean pre-test attitude was 35.4 ± 3.169 , the mean post-test attitude found to be 35.8 ± 3.399 . However, the difference was proves as mean 12.960. Further the paired t-test value (0.701) shows statistical no significance at the level of $p < 0.05$, establishing the effectiveness of structured teaching programme. Therefore the null hypothesis accepted.

DISCUSSION

In pre-test score only 6% of adolescent girls were having good knowledge, 64% were having average knowledge, 30% were having poor knowledge regarding pubertal changes. 88% were having favourable attitude and 12% adolescent girls were having unfavourable attitude regarding pubertal changes. In post-test score 86% of adolescent girls were having good knowledge, 14% were having average knowledge, no adolescent girls had poor knowledge regarding pubertal changes. 90% adolescent girls were having favourable attitude and 10% were having unfavourable attitude regarding pubertal changes. There was significant effectiveness of structured teaching programme on knowledge ('P' value=23.179) and no significant effectiveness of structured teaching programme on attitude level ('P value'=0.701). This finding were supported by a study which Was done by Ara Bilquees 2023, The findings of the study revealed that pre-test knowledge level was 73.3% of the adolescent girls had average knowledge and 13.3% had good or below average knowledge. In post-test knowledge score majority 93.3% had excellent knowledge and 6.7% had good knowledge. The knowledge level of the participants in post-test 33.88 ± 2.799 was higher compared to the pre-test knowledge 14.53 ± 3.171 has effectiveness of nursing intervention in the form of teaching programme in enhancing the knowledge of adolescent girls regarding pubertal changes⁶.

CONCLUSION

From the findings of the study of pre-test knowledge score most 51.70% of adolescent girls had average knowledge of different types of pubertal changes, most 50% had average knowledge of management of pubertal changes, less than half 37.30% had knowledge of anatomy of female reproduction system, less than half 32% had knowledge of introduction of pubertal changes and 29.70% had knowledge of menstrual cycle through the media, family and others. In post-test knowledge score majority 86.90% of adolescent girls had good knowledge of management of pubertal changes, majority 84.30% had good knowledge of menstrual cycle, majority 80% had good knowledge of different types of pubertal changes, less than half 37.30% had knowledge of anatomy of female reproduction system and 32% had knowledge of introduction of pubertal changes. In pre-test level of attitude score majority 88% had favourable attitude and less 12% of adolescent girls had unfavourable attitude regarding pubertal changes. In post-test level of attitude score majority 90% of participants had favourable attitude and less 10% of participants had unfavourable attitude regarding pubertal changes.

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CONFLICTS OF INTEREST

There is no conflicts to interest.

REFERENCES

1. Dhakal B. Knowledge and Attitude Regarding Pubertal Health among Adolescent Girls. Journal of Nepal Health Research Council. 2019;17(4):437–42.
2. Kumari A, Chaudhary S, Bodh S. Effectiveness of Structured Teaching Programme on Knowledge and Attitude Regarding Physiological Changes during Puberty among School Students. 2020;11(2).
3. <https://www.healthychildren.org/English/ages-stages/gradeschool/puberty/Pages/Physical-Development-of-School-Age-Children.aspx>
4. Santhi MP, Sc. (N) M, Ambujam DG, M.S, FICS, FAES. Knowledge on Pubertal Changes Among Adolescent Girls. Annals of the Romanian Society for Cell Biology. 2021 Jul 1;19891–6.
5. Sivasubramanian .N, Khoja R, Bhoomi, khayati, Harsh, Srusthi, Riya. International Journal of Current Science Research and Review. [cited 2023 May 17].
6. Ara B. A pre-experimental study to assess the effectiveness of nursing intervention on the Knowledge regarding Pubertal changes among secondary school girls in GGHS Sumbal, Jammu and Kashmir. International Journal of Nursing Science Practice and Research. 2023 May 29;9(1):54–60.