



A Study To Assess The Effectiveness Of Computer Based Instruction On Knowledge Regarding Precocious Puberty Among School Girls At Selected Villages Dindigul.

1 Ms.Antosuji 2 Mrs. Kavitha 3 Mrs. K. Sumathy

1 Associate Professor, OBG Nursing Department, Sacred Heart College of Nursing, Dindigul

& PhD Scholar, Dr. M. G. R Medical University, Chennai.

2 HOD cum Professor, OBG Nursing Department, Sacred Heart College of Nursing, Dindigul

3 Principal cum Professor, Sacred Heart College of Nursing, Dindigul

Abstract: This study aimed to assess the effectiveness of computer based instruction regarding precocious puberty among girls at selected village Dindigul. The objectives of the study were to assess the knowledge regarding precocious puberty among school girls and to evaluate the effectiveness of computer based instruction regarding precocious puberty, A pre experimental one group pre and post test research design was used. A non-probability convenient sampling technique was used to select 50 participants. The data collection tool used was a structured knowledge questionnaire, and the findings revealed that initially, 76% of the respondents had inadequate knowledge, while 0% had adequate knowledge. However, after the implementation of the computer based instruction, 64% of respondents had adequate knowledge, and only 4% had inadequate knowledge. The study concluded that the computer based instruction was effective in improving the knowledge of the school girls regarding precocious puberty.

Keywords: Precocious puberty, Effectiveness, Computer based instruction, Knowledge

I. INTRODUCTION

Precocious puberty refers to the early onset of puberty, characterized by the development of secondary sexual characteristics before the typical age of 8 years in girls and 9 years in boys' Precocious puberty, or early puberty, can have both physical and psychological effects on children. Physically, it can lead to reduced final height and bone maturity, potentially resulting in shorter adult stature. Emotionally and socially, early puberty can cause self-esteem issues, anxiety, depression, and difficulties with peer relationships. Earlier puberty has been associated with deleterious long-term health outcomes. These include: metabolic disorders, such as insulin resistance, pre diabetes, and type 2 diabetes, increased cardio

metabolic risk, such as high cholesterol, high blood pressure, overweight, and obesity. This study understates the importance of understanding the impacts and challenges of precocious puberty on girls and the need for education to help school girls to deal with the challenges.

II. NEED FOR THE STUDY

There has been a worldwide secular trend toward earlier onset of puberty in the general population. The incidence of precocious puberty varies globally; with estimates ranging from 1 in 5,000 to 1 in 10,000 children. Precocious puberty is more common in girls than boys, with girls representing approximately 95% of cases. The average age of early puberty onset in girls is around 8 years, while in boys it is around 9 years. A cohort study was conducted in Denmark to determine the prevalence of precocious puberty and reported that 86.0% girls are affected (National Institute of Health, 2011).

In 2023 the Indian Council of Medical Research (ICMR) conducted a study to assess the Prevalence of precocious puberty and reported 10.4% of children are affected. A Cross-Sectional study (Ravivarman et al., 2020) reported prevalence of precocious puberty 30.9% in Tamil Nadu

Children's gender, bone age, exercise habits, E2, FSH, LH, leptin, mother's menarche time, living environment, eating habits, sleep time and other factors are closely related to precocious puberty in children. Reminding parents to actively prevent related factors in clinical work is helpful to prevent the occurrence of precocious puberty in children. (Dong et al. 2023)

Precocious puberty contributes to an increased risk of obesity and type 2 diabetes in both genders; early menarche may slightly increase the risk of coronary heart disease and ischemic strokes and early pubertal timing increases the risk of depression and anxiety disorders. (Soliman et al., 2023)

Based on above research studies regarding precocious puberty researcher felt that precocious puberty among female children has the great impact on the women's reproductive function and it adversely affect the lives of women in all level. So precocious puberty among female children should be prevented also consequences of this issue to be positively challenged, Knowledge are power, can bring great change. especially imparting knowledge through computer regarding precocious puberty may help the children to prevent the issue and make them to cope up with the impacts of precocious puberty So the researcher have selected this study with the aim to impart the knowledge among school girls regarding precocious puberty

STATEMENT OF THE PROBLEM:

A pre experimental study to assess the effectiveness of computer based instruction on knowledge regarding precocious puberty among school girls at selected village Dindigul.

OBJECTIVES

1. To find out the pre and posttest level of knowledge regarding precocious puberty among school girls at selected village Dindigul.
2. To evaluate the effectiveness of computer based instruction on knowledge regarding precocious puberty among school girls at selected village Dindigul

HYPOTHESIS

H1: There is a significant difference in mean post test knowledge score and mean pre test Knowledge score.

REVIEW OF LITERATURE

Kala Barathi et al (2020) had done a study with one group pre and posttest research design among pre-adolescent girls and reported that 80% had adequate knowledge, 20% had moderate knowledge and none of them had inadequate knowledge in posttest and concluded structured teaching programme regarding eating habits leads to early puberty among adolescent girls showed a significant improvement in knowledge among pre-adolescent girls.

Prabu & Anbumani (2022) had done a descriptive study among school going girls (9-11years) and reported that the mean level of knowledge score of school going girls was out of 100 samples 1% had good knowledge, 17% had average knowledge and 82% had below average knowledge regarding early menarche and concluded that school going girls education regarding early menarche is very low.

A study by Siva Subramanian et al (2022) to assess the effectiveness of structured teaching programme on knowledge regarding early puberty among girls and revealed that the mean pre-test score

was 11.5% and the mean post test score was 44.38% and concluded that structured teaching programme was effective in improving knowledge regarding early puberty among girls

A study by Baruah and Chetia (2023) reported that the computer-assisted teaching intervention helped the parents to gain knowledge and develop a positive attitude about the mobile gadgets on children and they learned the ways to prevent these effects on the children who are the future of the nation.

METHODOLOGY

RESEARCH DESIGN: Pre experimental one group pre and posttest design

SETTING OF THE STUDY: A, Vellodu Village, Dindigul

SAMPLE AND SAMPLING TECHNIQUE: 50 girls (9 – 10 yrs) A non-probability convenient sampling technique was used

DATA COLLECTION TOOL

Structured knowledge questionnaire. It comprised of Part I – Background Variables Part II – Knowledge Questionnaire related to precocious puberty

DATA COLLECTION PROCEDURE

Data collection permission was obtained from respective authority, informed consent was received from the participants. Pretest was conducted before education and posttest was conducted after 5 days.

DATA ANALYSIS

Data was analyzed by descriptive statistics such as mean, frequency & percentage and inferential statistics such as Paired t test to find effectiveness of computer based instruction.

RESULTS

The findings of the study infers that before the computer based instruction out of 50 girls (9 - 10 yrs), 76% had inadequate knowledge regarding precocious puberty, 24% had moderate knowledge and none of them had adequate knowledge. After the intervention 64% had adequate knowledge related to precocious puberty, 32% had moderate knowledge and only 4% had inadequate knowledge.

- The post test mean knowledge score 23.2 was higher than mean pretest knowledge score 13.2
- The paired t test results revealed that the calculated t value 17.2 which was significant 0.05 so the hypothesis H1 was accepted

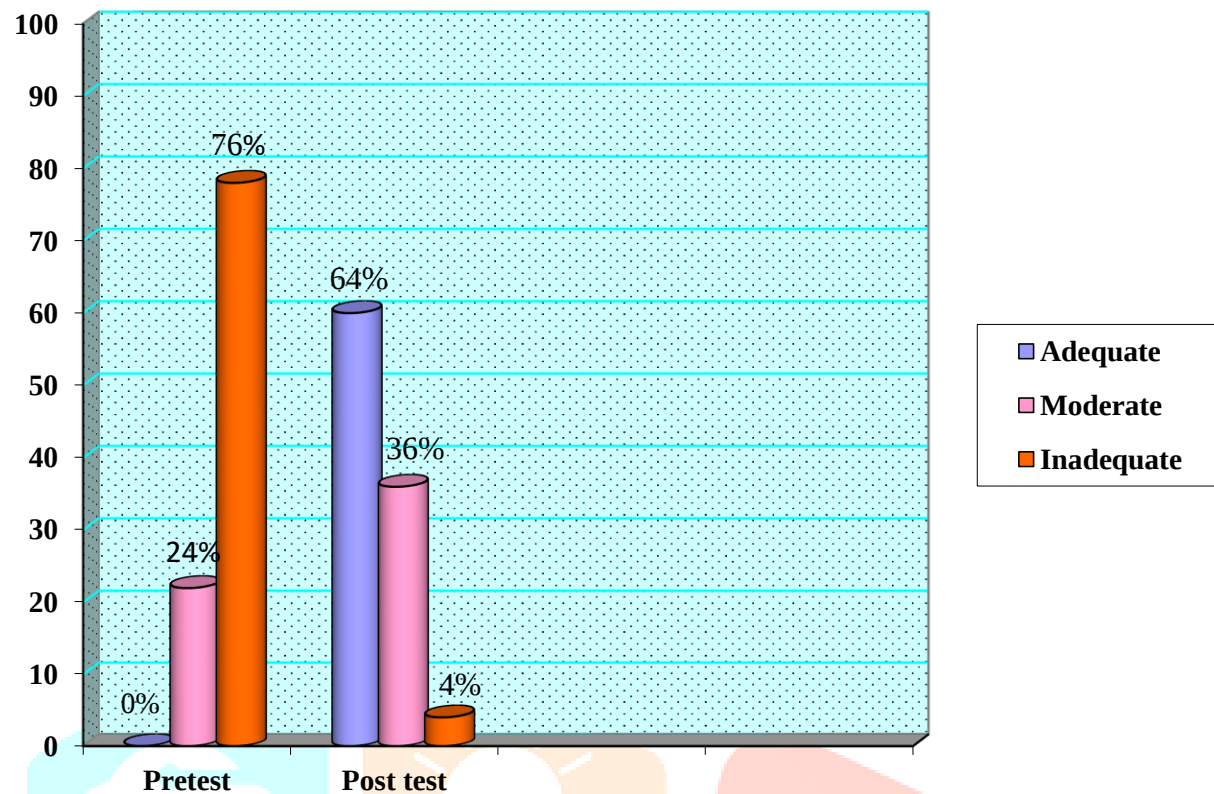


Fig I: Distribution of school girls based on the pre and post test level of Knowledge

Table I: Difference between pre and posttest mean knowledge score among school girls N = 50

Level Of Knowledge	Assessment			
	Pretest		Posttest	
	F	%	F	%
Adequate	0	0	32	64
Moderately Adequate	10	24	16	32
Inadequate	38	76	2	4

Table 2: Comparison of mean pretest knowledge score and mean posttest knowledge score of school girls N = 50

Assessment	Mean	SD	't' value
Pretest	13.2	2.4	17.2*
Posttest	23.2	2.5	

*Significant at 0.05 levels

DISCUSSION

Before the intervention the findings of the study revealed that majority of the school girls 76% had inadequate knowledge and few girls had 24% of moderate knowledge and none of them had adequate knowledge and this suggest that lack of knowledge related to precocious puberty among school girls and this is consistent with Prabu & Anbumani (2022). Subaie et al. (2024). After implementation of computer assisted instruction 64% had adequate knowledge. This significant improvement support finding from Krishma, Sagar and Mamta (2023) and Sowjanya (2023) computer assisted teaching programme effectively increased the knowledge among school girls. The mean posttest knowledge level 64% is more than pretest level of knowledge 0 %. the mean posttest knowledge score of the school girls (23.2) is higher than their mean pretest score (13.2), the obtained 't' value is higher than the table value, so Computer based instruction has a significant effect in increasing the level of knowledge of school girls regarding precocious puberty

CONCLUSION

The present study concluded that the post test mean knowledge score significantly increase the level of knowledge of school girls hence the computer based instruction on knowledge regarding precocious puberty was an effective teaching method for providing information and increasing the knowledge among school girls.

REFERENCES

1. Ravivarman et al (2020) Prevalence of early menarche and Knowledge about Menstrual Hygiene practices among Adolescent Girls in rural Tamil Nadu. International Journal Dental and Medical Sciences Research, Volume 2, Issue 3, pp: 34-39.
2. Dong et al. (2023) Analysis of risk factors of precocious puberty in children BMC Pediatrics <https://doi.org/10.1186/s12887-023-04265>.
3. Kala Barathi et al (2020) A study to assess the effectiveness of structure teaching programme on knowledge regarding eating habits leads to early puberty among pre-adolescent girls. International Journal of Obstetrical and Gynaecological Nursing, Volume; 3 (1): Page no: 22-25.
4. Siva Subramanian et al (2022) Effectiveness of Structured Teaching Programme on Knowledge Regarding Early Puberty among Girls. International Journal of Current Science Research and Review, Volume 05 Issue 09, DOI: 10.47191/ijcsrr/V5-i9-42.
5. Baruah and Chetia (2023) Effectiveness of Computer-assisted Teaching Program and Lecture Method on the Effect of Junk Food on Health among the Adolescence in Selected Schools of Digboi, Tinsukia International Journal of Nursing Research 09(03):88-93 DOI:10.31690/ijnr.2023.v09i03.015