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## THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAM ON KNOWLEDGE REGARDING PUBERTY AMONG GIRLS

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**ABSTRACT**

A quasi experimental study was carried out in the girls higher secondary school, Manamadurai, South India to assess the effectiveness of structured teaching program on knowledge regarding puberty. A sample of 150 girls who have not attained menarche were selected by convenience sampling method at one of the school from Manamadurai. A self administered questionnaire was used to assess the knowledge regarding puberty among girls. Video assisted teaching was given to the group followed by discussion. Post assessment was done after 15 days. The subjects were classified into three groups. Adequate knowledge - 61 - 100%, moderately adequate knowledge - 36 - 60%, inadequate knowledge - less than 36%. Findings revealed that the knowledge of girls on puberty was significantly increased after the video assisted teaching programme. There was association between knowledge and selected demographic variables like education.

**KEYWORDS**

Puberty, Pubertal changes, Menarche and Knowledge regarding puberty.

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## INTRODUCTION

Puberty may be the biological time frame involving the child as well as their adult seen as a physical body changes that lead to sexual maturity. In these times adolescence experiences a growth spurt and attain the reproductive system maturity. The beginning of puberty and its progress tend to be varied between people.

In women sex maturation begins with, the appearance of breast buds that happens from around 9 years to 11years is the first sign of the ovarian

function. Through the entire process of puberty girls may experience a myriad of physical and emotional changes. Menarche is the time of combined emotions. Emotional changes might occur due to bodily changes make the girls tend to be nervous and also frightened, pleased as well as embarrassed. However, changes in body are common and also it can be taken care after puberty.

The knowledge regarding menarche and menstruation among school adolescence girls were assessed at Varanasi. Investigator concluded that they had inadequate knowledge regarding menarche and menstruation.

Puberty may occur as early as 8 or 9 year of age. It is good to include health teaching information on pubertal changes and menarche to girls. Nurses can help young adolescence to understand the normal physical and psychosexual changes taking place during puberty and menstruate. So they may learn to see it positively.

**Objectives of the study**

To assess the pre-test level of knowledge regarding puberty among girls in government school.

To assess the post-test level of knowledge regarding puberty among girls in Government school.

To evaluate the effectiveness of video assisted teaching program on knowledge regarding puberty among girls in the Government school at Manamadurai.

To find out the association between pre-test level of knowledge and the selected demographic variables such as age, education, mother's education, mother's occupation, type of family, religion, birth order, source of information and place of living.

To find out the association between post-test level of knowledge and the selected demographic variables such as age, education, mother's education, mother's occupation, type of family, religion, birth order, source of information and place of living.

## MATERIAL AND METHODS

The research approach used for this study was a quantitative approach. The investigator compared the pre-test and post-test knowledge regarding puberty among girls who are studying in $6^{th}$ and $7^{th}$ standard.

**Sampling**

One group pre-test post-test design was used. The sample contains of 150 girls studying in $6^{th}$ and $7^{th}$ standard who are not attained menarche. The sample was selected adopting a convenient sampling technique.

**Inclusion criteria**

Those girls who

Have not attained menarche.

Were in $6^{th}$ and $7^{th}$ standard.

Were interest to participate in the study.

Could understand and read Tamil.

Were having normal growth and development.

**Exclusion criteria**

Those who were not interested to participate in the study.

Girls who were absent to school during data collection.

Girls who have already attained menarche.

**Description of the tool**

The self structured questionnaire was the tool which includes the demographic data and the selected items on knowledge of girls on puberty.

**Section - I: Demographic data**

Consisted of demographic data such as age, educational status, mother's education, mother's occupation, type of family, religion, birth order, source of information and place of living.

**Section – II: Self-structured questionnaire on knowledge**

It consisted of 34 multiple choice questions to assess the knowledge regarding puberty such as (a) Anatomy and Physiology of the female reproductive system, (b) menstruation, (c) pubertal changes and (d) menstrual hygiene. The time taken to complete the questionnaire was about 30 minutes.

**Video assisted teaching programme**

In this study, it refers to video that contains information regarding puberty such as Anatomy and Physiology, pubertal changes, menstruation and menstrual hygiene. This program was prepared and imparted by a researcher. After assessing the knowledge of samples, video assisted teaching was given by researcher.

**SCORING PROCEDURE**

Adequate knowledge - 61 - 100%

Moderately adequate knowledge - 36 - 60%
Inadequate knowledge - less than 36%

**Data collection procedure**

The main study was conducted in Government Girl's Higher Secondary School, Manamadurai. Prior to the data collection, a formal permission was obtained from the head of the institution by the investigator. The period of data collection was six weeks. Investigator met the class teachers of sixth and seventh standards and explained the purpose of the study. Then the investigator gathered the students who met inclusion criteria by convenient sampling and explained the procedure to gain the confidence among them and collected the data through the formulated questionnaire. The data collection procedure was conducted in the school campus from 10am -12pm daily.

The knowledge questionnaire was distributed to samples; meanwhile their doubts were also cleared. Each day the data was collected from 10-15 samples. After receiving the questionnaire, video assisted teaching was given which was prepared by the investigator for 45 minutes. After 15 days post-test was done.

## RESULTS AND DISCUSSION

**Section – I**

Pre-test level of knowledge score of samples.

Post-test level of knowledge score of samples.

**Section – II**

Difference in the pre-test and post-test knowledge.

**Section – III**

Association between post-test knowledge and selected demographic variables (age, education, mother's education, mother's occupation, religion, type of family, birth order, source of information and place of living)

**Section – I**

This section deals with distribution of pre-test and post-test knowledge score samples.

**Samples according to knowledge score**

Based on the score obtained, the samples were arbitrarily divided into 3 categories, adequate, moderately adequate and inadequate.

Adequate knowledge 61 - 100%
Moderately adequate knowledge 36 - 60%
Inadequate knowledge Less than 36%

**Section II**

This section deals with the difference in pre-test and post-test knowledge score.

Table No.2 shows that the pre-test and post-test knowledge score of girls on puberty; there is enhancement of knowledge in all the aspect of post-test.

**Section III**

This section deals with the association between pre-test knowledge scores and with their selected demographic variables.

There is a significant (0.05% level) association between the pre-test knowledge and the selected demographic variables such as education and mother's education. It is also found that there is no association between the pre-test knowledge and the demographic variables such as age, mother's occupation, type of family, religion, birth order and source of information and place of living.

**Associations between post-test knowledge score and demographic variables**

There is a significant association between post-test knowledge and selected demographic variable, education. This table also shows that there is no significant association between the post-test knowledge and demographic variables such as age, mother's education, occupation, type of family, religion, birth order, source of information and place of living.

**Discussion**

**The first objective was to assess the pre-test level of knowledge regarding puberty among girls.**

Figure No.1 showed that 19% girls have moderately adequate knowledge and 81% had inadequate knowledge regarding puberty in pre-test. This indicates the need for the teaching program for girls.

**Area wise analysis of knowledge scores among girls regarding puberty**

Analysis revealed that the highest score (39%) of correct responses observed in Anatomy and physiology and lowest score (25%) of correct responses observed regarding menstruation. This indicates that awareness of puberty and menstrual hygiene was very poor. Repeated teaching can improve the knowledge regarding puberty.

**Item wise analysis of knowledge scores of girls regarding puberty**

Lowest score 11% observed in the items being "Early puberty for a girl starts at when she is 8 years". 19% of the respondents responded correctly to item no 5 that is "Menstrual flow drains from the uterus through the vagina" and 17% had knowledge about the item "Methods to reduce premenstrual syndrome namely exercise and others". The investigator observed inadequate knowledge about anatomy and physiology, pubertal changes and menstrual hygiene. It will be better if anatomy and physiology of the female reproductive system is added in the school curriculum and prior information about menstruation could be given to prepare the girl child mentally to accept the change in a constructive way and help her to develop a better attitude.

This study finding was similar to that of Abioje *et al* (2000)[1] who conducted a study on menstrual knowledge and practice among secondary girls with the aim of acute need for education and psychological preparation of girls regarding menstruation. The study found that 66.3% were using insanitary materials, 95.2% need education and psychological preparation of girls regarding menstruation well ahead of menarche. The above findings highlight the need for health education among girls so as to increase awareness and knowledge regarding puberty.

**The second objective is to assess the post-test level of knowledge on puberty among girls after video assisted teaching program**

Figure No.2 showed that 74.67% girls had adequate knowledge and 25.33% had moderately adequate knowledge after video assisted teaching program.

This study was similar to that of P.R. Deshmukh *et al* (2007)[2]. They reported that after 3 years of community based health education intervention on menstrual hygiene, significantly more adolescent girls (55%) were aware of menstruation before its initiation compared with baseline (35%). The practice of using ready-made pads increased significantly from 5% to 25% and reuse of cloth declined from 85% to 57%. The trend analysis showed that adolescent girls perceived a positive change in their behavior and level of awareness.

**The third objective was to evaluate the effectiveness of video assisted teaching program on knowledge regarding puberty among girls**

$H_1$ – There will be a significant difference between pre-test and the post - test level of knowledge score after video assisted teaching program.

Table No.1 showed that the mean post-test knowledge score (21.71) was higher than that of pre-test knowledge score (10.14). The calculated paired 't' test value was (44.45) more than the table value at df 3.39. This indicates that there is a significant difference between pre-test and post-test knowledge score, which means that video assisted teaching program influenced the gain of knowledge among girls. Hence the researcher accepts the research hypotheses.

This study was supported by Rao R S, Lena A, (2008)[3]. They reported that desirable changes in knowledge among adolescence girls were found regarding reproductive health, after an educational information program.

**The fourth objective was to find out the association between pre-test level of knowledge and the selected demographic variables**

$H_2$ – There was a significant association between the pre-test knowledge score and demographic variables such as education and mother's education.

**The fifth objective was to find out the association between post-test level of knowledge and the selected demographic variables**

$H_3$ - There was a significant association between the post-test knowledge score and education. Since the calculated chi-square value is higher than the table value.

**Table No.1: Difference between mean Pre-test and Post-test knowledge among the girls**

| S.No | Categories | Mean | Standard Deviation | Paired 't' test | |
|---|---|---|---|---|---|
| | | | | Calculated value | Table value |
| **1** | **Pre-test** | 10.14 | 2.51 | 44.458** | 3.29 |
| **2** | **Post-test** | 21.71 | 3.69 | | |

p<0.001 highly significant
** Highly significant

**Table No.2: Area wise comparison of pre-test and post-test scores for correct response regarding puberty among girls (n=150)**

| S.No | Areas of puberty | Pre-test | Post-test | Effectiveness |
|---|---|---|---|---|
| 1 | Anatomy and physiology | 39% | 66% | 27% |
| 2 | Menstruation | 25% | 70% | 45% |
| 3 | Pubertal changes | 27% | 56% | 29% |
| 4 | Menstrual hygiene | 31% | 67% | 36% |

**Distribution of knowledge score in pre-test and post-test**

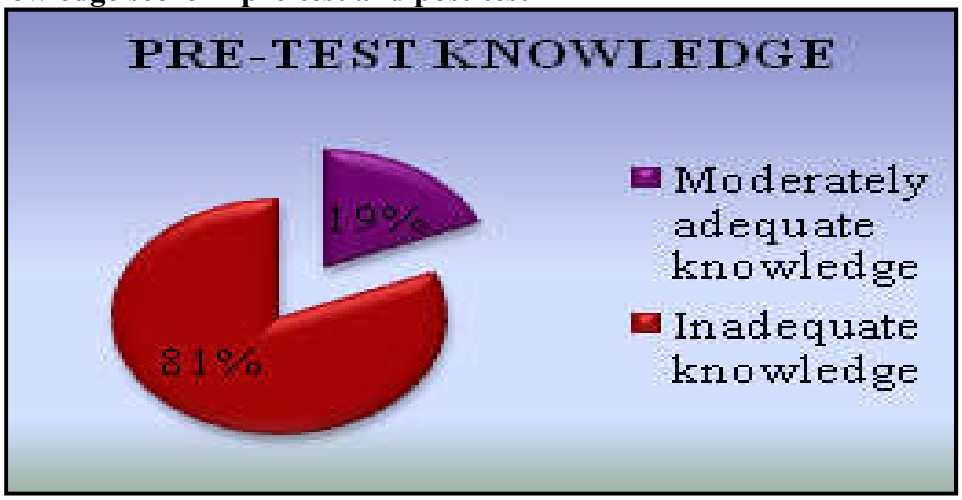


**Figure No.1: Distribution of pre-test knowledge of puberty among girls (n=150)**

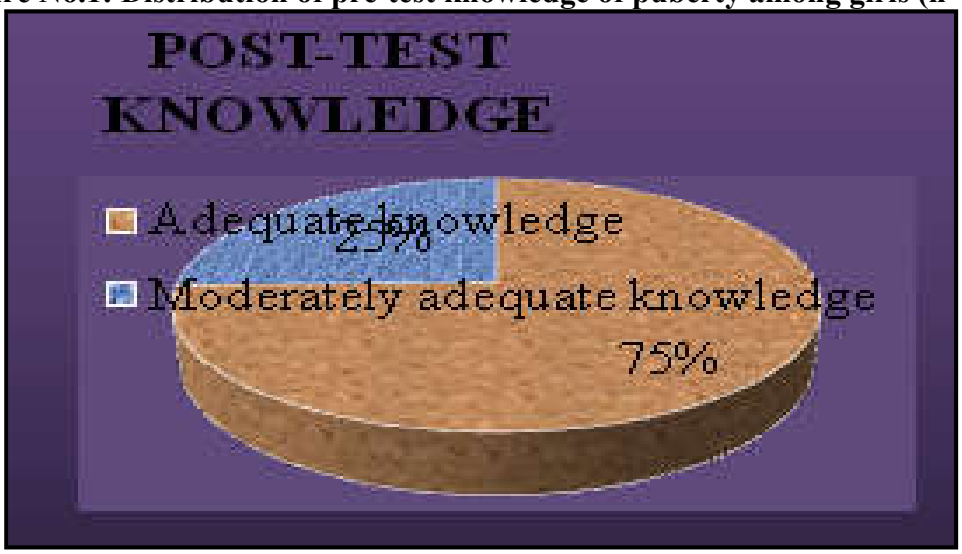


**Figure No.2: Distribution of Post-test knowledge regarding puberty among girls**

## RECOMMENDATION

On the basis of the findings of the study, it is recommended that, a similar study could be replicated with a larger sample. A study may be conducted to assess the knowledge among school teachers regarding puberty. A comparative study may be done regarding knowledge on puberty between adolescent girls, who attained menarche and pre- adolescent girls, who have not attained menarche.

## CONCLUSION

The study results shows that the samples who were attending the video assisted teaching program have shown improvement in the level of knowledge which was proved statistically. The samples expressed their gratitude for the knowledge they gained regarding puberty. It provides all round development of child's physical, mental, social, emotional and moral well-being. Puberty and menstrual hygiene is an aspect which is often being neglected by many parents and teachers.

The pre-adolescent girls may not be aware of puberty and menstrual hygiene. Health education should focus on actual experience of living healthy and happily with other children in a safe school environment. It is the responsibility of the nurse educator to plan and conduct group teaching on puberty and to prepare the children physically and emotionally.

It is necessary to learn about pubertal changes for the girls who are going to attend menarche. Continuations of teaching on the same aspect of all school girls will be improve their knowledge as well as improve their physical and mental health.

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## CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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