Effectiveness of structured teaching programme on knowledge regarding pubertal changes among pre-adolescent girls

L Anusha, Radhika M, Indira S

Abstract

Introduction: The journey from childhood to adolescence is very challenging. Between the ages of 10 and 17 years, there are major changes in physical, cognitive, social and moral development. Pre-adolescence is the period of human development just preceding adolescence, specifically the period between the approximate ages of 9 and 12 years. Girls begin their pre-adolescent growth spurt at about 10 years of age and boys at about 12 years. Most of the problems derive from the widespread ignorance of the body changes and natural process which occur during puberty.

Methodology: Pre-experimental study was undertaken to assess the knowledge regarding pubertal changes among pre-adolescent girls in KNR government high school at Nellore District. The sample size was 60 preadolescent girls and the non probability convenience sampling technique was used for selection of subjects. Standard questionnaire was used to assess knowledge regarding pubertal changes and classified based on the overall percentage obtained by the preadolescent girls.

Results: The findings of the study revealed that effectiveness of structured teaching programme on knowledge regarding pubertal changes among 60 pre-adolescent girls, in pretest, 43 (71.6%) had inadequate knowledge and 17 (28.4%) had moderately adequate knowledge. Whereas in posttest 34 (56.7%) had moderately adequate knowledge, 15 (25%) had inadequate knowledge and 11 (18.3%) had adequate knowledge.

Source of health information had significant association with the knowledge regarding pubertal changes.

Conclusion: The structured teaching programme is found to be effective in knowledge regarding pubertal changes in pre-adolescent girls.

Keywords: knowledge, pubertal changes, pre-adolescent girls, structured teaching programme, puberty.

Introduction

Adolescence is a transition period from childhood to adulthood and characterized by a spurt in physical, emotional and mental growth with a change from complete dependence to relative independence. The period of adolescence for girls is a period of physical and psychological preparation for safe motherhood.

The journey from childhood to adolescence is very challenging. Between the ages of 10 and 17 years, there are major changes in physical, cognitive, social and moral development. Pre-adolescence is the period of human development just proceeding adolescence, specifically the period between the approximate ages of 9 and 12 years. Girls begin their pre-adolescent growth spurt at about 10 years of age and boys at about 12 years.

The word ‘Puberty’ is derived from the Latin word “Puberty as”, which means ‘age of manhood’. It refers to the physical rather than behavioural changes which occur when the individual becomes sexually mature and is capable of producing off springs. Puberty is that time when the child turns sexual and the mind struggles to catch up. Until they are sexually mature children are known as pubescent or pubescent children. Puberty primarily refers to the maturational and hormonal and growth process that occurs when the reproductive organs begin to function and the secondary sexual characteristics develop (LINDA M. KOLLAR). Puberty is a time during which the child moves through a series of significant natural, healthy changes. These physical, psychological and emotional changes signal your child is moving from child hood to adolescent.
During pre-adolescent period, dramatic changes take place in girls like growth spurts, reproductive system development, and appearance of secondary sexual characteristics. It is also a time of mental and psychological adjustment. Parents are in an excellent position to observe each and every change in their children. So educating parents especially mothers about pubertal changes among pre adolescents is an important aspect.

1.1 Statement of the Problem
“A study to evaluate the effectiveness of structured teaching programme on knowledge regarding pubertal changes among pre-adolescent girls in selected schools in rural area, Nellore.”

1.2 Objectives
- To assess the knowledge regarding pubertal changes among pre-adolescent girls.
- To evaluate the effectiveness of structured teaching programme on knowledge regarding pubertal changes among pre-adolescent girls.
- To associate effectiveness of structured teaching programme on knowledge regarding pubertal changes with their selected socio demographic variables among pre-adolescent girls.

1.3. Assumptions
1. Pre – adolescent girls have lack of knowledge regarding pubertal changes.
2. Structured teaching programme is effective in enhancing the knowledge regarding pubertal changes among pre-adolescent girls.

1.4. Research Hypotheses
H1: There is a statistically significant difference between the mean knowledge scores among the pre-adolescent girls regarding pubertal changes before and after structured teaching programme.
H2: There is a statistically significant association between effectiveness of structured teaching programme on level of knowledge regarding pubertal changes and their selected socio demographic variables.

2. Materials and Methods
Pre-experimental study was conducted in KNR government high school at Nellore District. A sample size of 60 preadolescent girls were selected by non probability convenience sampling technique. Standard questionnaire was used to assess knowledge regarding pubertal changes and classified based on the overall percentage obtained by the preadolescent girls.

2.1. Plan for Data Analysis:
Data analysis was done using descriptive statistics and inferential statistics.

Descriptive statistics
- Frequency and percentage distribution,
- Mean & standard deviation

Inferential statistics
- Chi-square test.

3. Results

![Graph 1](image1.png)

Fig 1: Percentage distribution of Pre-adolescent girls based on age.

![Graph 2](image2.png)

Fig 2: Percentage distribution of Pre-adolescent girls based on education.

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**Table 1:** Level of knowledge regarding pubertal changes among pre-adolescent girls before and after structured teaching programme.

<table>
<thead>
<tr>
<th>S.no.</th>
<th>Level of Knowledge</th>
<th>Pre test</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inadequate knowledge</td>
<td>43</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>% 71.7</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Moderately adequate knowledge</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>% 28.3</td>
<td>56.7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Adequate knowledge</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>% -</td>
<td>18.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>% 100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2:** Mean and standard deviation of knowledge regarding pubertal changes among preadolescent girls

<table>
<thead>
<tr>
<th>S.no.</th>
<th>Test</th>
<th>Mean score</th>
<th>Standard deviation (S.D)</th>
<th>'Z'~- test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pretest</td>
<td>20.1</td>
<td>0.06</td>
<td>C= 7.95</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T=1.96</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S*at p&lt;0.05</td>
</tr>
<tr>
<td>2</td>
<td>Posttest</td>
<td>29.8</td>
<td>0.03</td>
<td></td>
</tr>
</tbody>
</table>
Table 3: Comparison of mean and standard deviation of knowledge on different aspects of pubertal changes among preadolescent girls. (N=60)

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Various Aspects</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Paired ‘Z’-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean score S.D.</td>
<td>Mean score S.D.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Anatomy &amp; Physiology of reproductive</td>
<td>3.16 0.0</td>
<td>3.9 0.0</td>
<td>C= 14.8T=1.96S*at p&lt;0.05</td>
</tr>
<tr>
<td>2</td>
<td>Physiological changes during puberty</td>
<td>9.88 0.0</td>
<td>14.53 0.1</td>
<td>C= 27.3T=1.96S*at p&lt;0.05</td>
</tr>
<tr>
<td>3</td>
<td>Menstrual Cycle</td>
<td>3.23 0.0</td>
<td>5.15 0.2</td>
<td>C=32T=1.96S*at p&lt;0.05</td>
</tr>
<tr>
<td>4</td>
<td>Menstrual Hygiene</td>
<td>3.91 0.0</td>
<td>6.25 0.2</td>
<td>C=33T=1.96S*at p&lt;0.05</td>
</tr>
</tbody>
</table>

* - Significant at p= <0.05 df(n-1) = 59

4. Discussion
FINDINGS RELATED TO THE KNOWLEDGE REGARDING PUBERTAL CHANGES AMONG PRE-ADOLESCENT GIRLS.

The findings of the study revealed that effectiveness of structured teaching programme on knowledge regarding pubertal changes among 60 pre-adolescent girls, in pretest, 43 (71.6%) had inadequate knowledge and 17 (28.4%) had moderately adequate knowledge. Whereas in post test 34 (56.7%) had moderately adequate knowledge, 15 (25%) had inadequate knowledge and 11 (18.3%) had adequate knowledge.

A study was conducted among 40 pre-adolescent girls of sixth and seventh standards from Christian School, Udupi regarding the effectiveness of teaching programme on pubertal changes and menarche. The data was collected by using structured knowledge questionnaire; research design used in the study was one group pre-test post-test pre-experimental design. Study result revealed that in the pre-test 60% of students had average knowledge, no one had good knowledge whereas in post-test maximum (65%) had good knowledge and 32.5% had average knowledge. The post-test knowledge score (18.80%) was apparently higher than the pre-test mean knowledge score (9.20%).

ASSOCIATION BETWEEN THE POST-TEST KNOWLEDGE SCORES & SOCIO DEMOGRAPHIC VARIABLES OF PRE-ADOLESCENT GIRLS.

There is a significant Association between the effectiveness of structured teaching programme on pubertal changes among pre adolescent girls and source of health information, and there is no significant association with age, education, dietary habit, birth order of the child at the level of p<0.05.

5. Recommendations for Further Study

1. A similar study can be replicated on large sample size, in different settings with in different population as longitudinal study.
2. A study can be conducted to evaluate the effectiveness of puppet show regarding pubertal changes among pre-adolescent girls in staffnurses and nursing students.
3. A study can be conducted to compare the effectiveness of information booklet regarding pubertal changes among pre-adolescent girls in rural and urban areas
4. Structured teaching programmes can be conducted on knowledge regarding reproductive health among adolescent girls in various settings.

6. Conclusion

The study concluded that structured teaching programme was effective in enhancing the level of knowledge regarding pubertal changes among pre-adolescent girls.

7. References