A study to assess the knowledge regarding pubertal changes among school girls in selected schools at Nellore, A.P

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Abstract

Background: Puberty refers to the maturational, hormonal, growth process that occurs when the reproductive organ begins to function and the secondary characteristic development. Puberty is the transitional period linking childhood to adulthood and involves physical, biological, psychosexual changes in girls. Young person attending school through senior high school at the age group of 9-12 years is called school age group. The exact period when a normal puberty begins is not defined, the end point is reproductive potential in a young girls.

Aim: The aim of the study was to assess the knowledge on pubertal changes.

Objectives: 1. To assess the knowledge regarding pubertal changes among school girls. 2. To find out association between the level of knowledge and selected demographic variables of school girls regarding pubertal changes.

Methodology: 60 school girls studying at Rathnam Public School and Narayana Techno School, Nellore were selected by using probability simple random sampling technique method.

Results: Regarding level of knowledge among 60 school girls, 50 (83.33%) had inadequate knowledge, 10 (16.67%) had moderate knowledge and no one had adequate knowledge regarding pubertal changes.

Keywords: Knowledge, pubertal changes, school girls, schools

Introduction

“Puberty, It Hits Harder Than A Brick”

Puberty refers to the maturational, hormonal, growth process that occurs when the reproductive organ begins to function and the secondary characteristic development. Puberty is the transitional period linking childhood to adulthood and involves physical, biological, psychosexual changes in girls. Young person attending school through senior high school at the age group of 9-12 years is called school age group. The exact period when a normal puberty begins is not defined, the end point is reproductive potential in a young girls [1].

The duration of puberty lasts approximately about 2-3 years and the pubertal changes occurs slowly over this time. This process is sometimes divided into three stages. Prepubescence, the period of about two years immediately before puberty, when the child is developing preliminary physical changes that she aid sexual maturity. Puberty, the point at which sexual maturity is achieved marked by the first menstrual flow in girls [2].

Physical, endocrinal, genital organ changes, psychological and emotional changes that occur during puberty are modulated by the interaction of various hormones secreted through hypothalamus-pituitary-ovarian axis as well as thyroid and adrenal gland [3]. Hereditary, environment, nutrition, emotional stress, and childhood illness can influence the onset of puberty. Tanner and Marshal, described five stages of the puberty at changes in normal girls. They are physical growth, development of secondary sex organs, breast development, public and axillary hair growth, development of ovaries and genital organs growth spurt and menstruation. The process of growing up is period of confusion and conflict. It is often difficult for young people to fully comprehended these changes as they are occurring [4].

Need for the Study

India is the second most country in high population. School girls consist of 20.8% population in India. As per recent estimates, school girls’ population constitutes 32% of the total state
population. 10-20% world population comprises school girls and their problems have not been fully appreciated and addressed until many recent times [5]. 9.25% of the girls have correct knowledge. Nearly 3/4th of the girls did not have prior knowledge about menstruation. Total subjects 94.2% of the people are in the age of 10-16. Nearly 94% respondents reported their age at menarche and maximum that is 54% respondents experienced in the age of 11-13 years. It was observed that 18% having good knowledge and 20.3% having moderate knowledge. Majority of the school going girls are not aware of the fundamental fact of pubertal changes. Negative perception misinformation and lack of knowledge the preschool girls go through the physiological emotional stress and malpractices [6].

According to a survey conducted by the Federation of Obstetrics and Gynecologists Society of India (FOGSI) the age of attaining sexual maturity among girls in urban India has dropped from 13 to 11 years. More than80% the girls in cities are reaching puberty around the age of 11 years [7]. A study was performed to identify the knowledge of pubertal changes among school girls in the age group of 10-12 years. The aim of the study was assess the knowledge of pubertal changes in selected high school at Patna. The study found that half of them attained sexually maturity at 13 years of age. (50.96%) adolescent girls know about pubertal changes. Particularly primary sex characteristics 53.73%, secondary sexual characteristics such as Ht, Wt (75%) public hair 19%, hip enlargement 9.1% respectively. The study found that half of the adolescent girls lack in knowledge of pubertal changes [8].

**Problem Statement**

A study to assess the knowledge regarding pubertal changes among school girls in selected schools at Nellore, A.P.

**Objectives**

- To assess the knowledge regarding pubertal changes among school girls.
- To find out association between the level of knowledge and selected demographic variables of school girls regarding pubertal changes.

**De Limitations**

- The study is delimited to 9-12 years of school girls in selected schools.
- The sample size is 60 school girls.
- School girls who are available & willing for the study.

**Methodology**

**Research Approach**

A quantitative approach was adopted to determine the research study.

**Research Design**

The present study was conducted by using descriptive research design.

**Setting of the Study**

The study was conducted at Rathnam Public School and Narayana Techno School, Nellore.

**Target Population**

The target population for the present study was school girls.

**Accessible Population**

The accessible population for the present study was school girls studying at Rathnam Public School and Narayana Techno School, Nellore and who fulfilled the inclusion criteria.

**Sample Size**

The samples consist of 60 school girls.

**Sampling Technique**

Simple random sampling technique was adapted for the study.

**Criteria for Sampling Selection**

**Inclusion Criteria**

- School girls studying at selected schools at Nellore.
- School girls willing to participate in the study.

**Exclusion Criteria**

- School girls who were sick or leave.
- School girls who are not willing to participate in the study.

**Description of the Tool**

**Part-I**: It deals with socio demographic data of school girls, that includes age, religion, education, mothers level of education, place of residence, type of family and source of information.

**Part-II**: It deals with structured questionnaire on knowledge of school girls regarding pubertal changes.

**Score Interpretation**

**Data Analysis and discussion**

**Table 1: Frequency distribution of level of knowledge regarding pubertal changes among school girls (N=60)**

<table>
<thead>
<tr>
<th>Level of Knowledge</th>
<th>Score</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate knowledge</td>
<td>0-20</td>
<td>&lt;50</td>
</tr>
<tr>
<td>Moderate knowledge</td>
<td>21-29</td>
<td>50-69</td>
</tr>
<tr>
<td>Adequate knowledge</td>
<td>30-42</td>
<td>&gt;70</td>
</tr>
</tbody>
</table>

**Fig 1: Percentage distribution of level of knowledge among school girls**
Table 2: Mean and standard deviation of knowledge score among school girls. (N=100)

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal mothers</td>
<td>16.67</td>
<td>4.28</td>
</tr>
</tbody>
</table>

Major Findings of the Study

- Regarding level of knowledge among 60 school girls, 50 (83.33%) had inadequate knowledge, 10 (16.67%) had moderate knowledge and no one had adequate knowledge regarding pubertal changes.
- The mean knowledge score of school girls was 16.67 and standard deviation was 4.28.
- Regarding association, only standard of education had significant association with level of knowledge at $P<0.05$ level.

Conclusion

The study concluded that majority of school girls, 50 (83.33%) had inadequate knowledge regarding pubertal changes.

Reference