

## KNOWLEDGE, ATTITUDE AND PRACTICE ON PHYSICAL AND NUTRITIONAL FITNESS TO PREVENT EARLY PUBERTY AMONG ADOLESCENT GIRLS

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### Abstract

*The purpose of the study is to find the Knowledge, Attitude and Practice on Physical and Nutritional fitness to prevent early puberty among adolescent girls. A researcher made questionnaire which consists of 30 questions to evaluate the knowledge, attitude and practice of Physical and Nutritional fitness to prevent early puberty on adolescent girls were used for collection of data. . For the study 30 girls from five government schools in Coimbatore district were constituted the population of the study were randomly selected as a subject and their age was ranged between 10 to 13 years. Information on demographic variables which include, geographical information of the subjects, age, birth order, infant nutrition, anthropometry, parent's education, and sources of information was collected from the participants. The researcher constructed PNP Questionnaire (i.e Physical fitness, Nutritional fitness, Puberty) which was validated earlier and it was used in the study and the data collected were statistically calculated by the percentile statistical design. 3 girls at the age of ten, and 2 girls at the age of eleven and 1 girl at the age of twelve gained 50% to 60% (Poor) because of their poor in knowledge, socio-economic background, young in age, parent's illiteracy, low knowledge in Physical activity, Nutritional fitness, and Puberty, and poor in hygiene, 7 girls at the age of eleven, 4 girls at the age of twelve and 5 girls at the age of thirteen gained 61% to 70% (Average) percentage because of their average knowledge in physical activity, Nutritional fitness and Puberty, and their parents illiteracy.: 1 girl at the age of eleven, 3 girls at the age of twelve and 4 girls at the age of thirteen gained 71% to 80% (Moderate) percentage because of their moderate knowledge in Physical activity, Nutritional fitness, and Puberty, average hygiene practice, and their parents are moderately educated. No one had gained 81% to 90% (Good) and 91% to 100% (Excellent): percentage because of their poor in knowledge, socio-economic background, young in age, parent's illiteracy, low knowledge in Physical activity, Nutritional fitness, and Puberty, and poor in hygiene and other consequences.*

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## INTRODUCTION

Adolescent stage has multidimensional changes, including physical, psychological, emotional, and social changes. Adolescence is derived from Latin word “adolescere” which means “to grow into maturity”. According to the United Nations Children’s Fund (UNICEF), there are 243 million adolescents comprising 21% of the total population of India which clearly shows that India is truly “young”. The World Health Organization (WHO) defines an adolescent as any person between ages 11 and 17. Following a sufficient and healthy balanced diet, physical activities during all phases of growth i.e., infancy, childhood and adulthood is essential for normal pubertal development. Nowadays girls begin their puberty at an earlier age compared to past decades. The onset of puberty and appearance of secondary sexual characters are the significant changes that take place in adolescent girls. Nowadays the vast changes happen, particularly eating of more junk foods, lack of physical activity is the reason for this phenomenon. Overweight, obese, sedentary girls are more possible to enter puberty early.

Few studies states that obesity can accelerate the onset of early puberty in girls. When early adolescents experience the physical, psychological and emotional changes they require the information regarding the bodily changes in order to prevent the problems like guiltiness and misunderstanding during the adolescence phase. Then the girls require support from their mothers and teachers or institution need to be educated regarding importance of physical and nutritional fitness to prevent early puberty among adolescents girls. Due to more restriction during adolescent girls along with the negative attitude of parents in discussing pubertal related issues or consuming nutritious food or let them to participate in physical activity has led to poor awareness regarding physical and nutritional fitness to prevent early puberty among adolescent girls. Hence, girls raise up with inadequate knowledge and importance of physical and nutritional fitness prevent early puberty. Early puberty starts before the age of 7 or 8. The bigger risk factor in early puberty was obesity, food insecurity, breast cancer, Human papilloma virus, heart disease, diabetes, etc. and the general negative factors of early puberty are, if the puberty occur too early their emotional, social, and cognitive balance may affect because they are not ready for this condition. Feeling different from their peers is the major challenge face by the girls who attain early puberty. Experiencing too many transition at once is also a major negative impact of early puberty. Physical activity is a key to increase of physical condition across the lifetime. A lack of physical activity increases the risk of heart disease, breast cancer, diabetes, hypertension, osteoporosis, anxiety and depression and others diseases like early puberty. Nutrition is a major indicator of the health and overall status of adolescents. The unique growth that occurs in adolescents creates increased demands for energy and nutrients. Total nutrient needs are higher during adolescence than any other time in the lifecycle. Nutrition and physical growth are integrally related; optimal nutrition is a requisite for achieving full growth potential. The study helps to find out knowledge, attitude, and practices (KAP) on physical and nutritional fitness to prevent early puberty among adolescent girls.

## OBJECTIVE OF THE STUDY

- To generate awareness on physical and nutritional fitness to prevent early puberty among adolescents girls.

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- It helps to improve knowledge attitude and practice on physical and nutritional fitness to prevent early puberty among adolescent girls.

**METHODS AND MATIRIALS OF THE STUDY**

**RESEARCH DESIGN**

The research design of the study is analytical study; the analytical studies attempt to quantify a relationship or association between two variables an exposure and an outcome (Priya Ranganathan 2019).

The 30 adolescent girls at the age of 10 years to 13 years selected from five government schools in Coimbatore District were constituted the population of the study. Girls who were interested in physical and Nutritional fitness to prevent puberty were selected as subjects.

The researcher constructed questionnaire which was validated earlier was used in the study and the data collected were statistically calculated by the percentile statistical design. The subjects were properly oriented about the study and informed consent form from the subjects was acquired.

**INSTRUMENTS**

The questionnaire consists of Geographical information of the subject, age, birth order, infant nutrition, anthropometry, nutrition questionnaire, physical activity questionnaire, puberty questionnaire. The questionnaire consists of 30 questions, it asses the Knowledge, Attitude and Practice towards physical and nutritional fitness to prevent early puberty.

**DATA ANALYSIS AND INTERPRETATION**

The collected data were calculated by percentile statistical design. Percentiles are used to understand and interpret data. They indicate the values below which a certain percentage of the data set is found. (Courtney Taylor 2019). Involvement of the pre-adolescent girls were assessed using 30 item and by using five point Likert scale was validated with pilot study done with 20 students.

**RELIABILITY OF THE TEST**

The reliability of the tool was established by using test-retest method. Ten students randomly selected from four schools [who were not the part of the study] were chosen and asked to fill the KAP scale twice with a gap of two weeks, between the first and second administration. Karl Pearson’s ‘r’ was computed for finding out the reliability. The coefficient of correlation, ‘r’ was found to be 0.98 which indicates that tool was highly reliable.

**Percentage gained by adolescent girls in PNP questionnaire**

Percentage/Age	10 years	11 years	12 years	13 years
51% to 60% (Poor)	3	2	1	0

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<b>61% to 70% (Average)</b>	0	7	4	5
<b>71% to 80% (Moderate)</b>	0	1	3	4
<b>81% to 90% (Good)</b>	0	0	0	0
<b>91% to 100% (Excellent)</b>	0	0	0	0
<b>Total</b>	3	10	8	9

Table-1

The table states that the percentage gained by adolescents girls in PNP questionnaire (i.e., Physical activity, Nutritional fitness, Puberty) of knowledge attitude and practice on physical and nutritional fitness to prevent early puberty among adolescent girls.

**50% to 60% (Poor):** 3 girls at the age of ten, and 2 girls at the age of eleven and 1 girl at the age of twelve gained this percentage because of their poor in knowledge, socio-economic background, young in age, parent's illiteracy, low knowledge in Physical activity, Nutritional fitness, and Puberty, and poor in hygiene.

**61% to 70% (Average):** 7 girls at the age of eleven, 4 girls at the age of twelve and 5 girls at the age of thirteen gained this percentage because of their average knowledge in physical activity, Nutritional fitness and Puberty, and their parents illiteracy.

**71% to 80% (Moderate):** 1 girl at the age of eleven, 3 girls at the age of twelve and 4 girls at the age of thirteen gained this percentage because of their moderate knowledge in Physical activity, Nutritional fitness, and Puberty, average hygiene practice, and their parents are moderately educated.

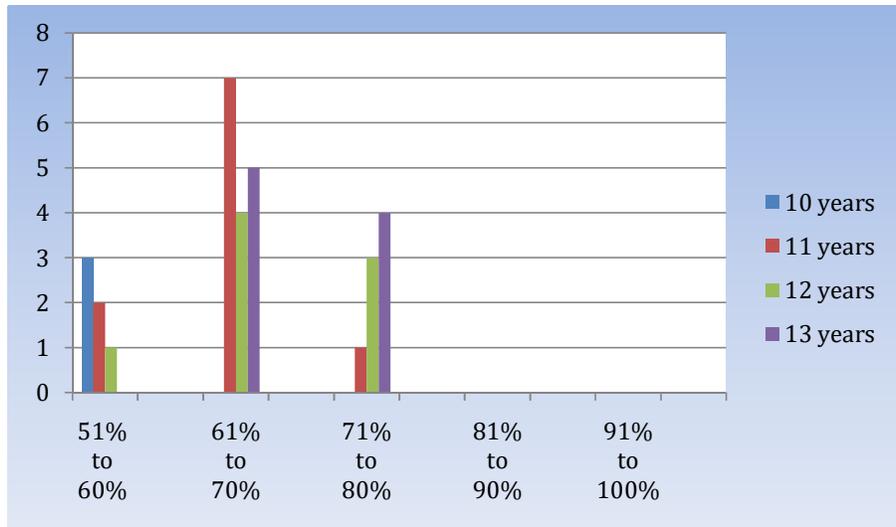
**81% to 90% (Good) and 91% to 100% (Excellent):** No one had gained this percentage because of their poor in knowledge, socio-economic background, young in age, parent's illiteracy, low knowledge in Physical activity, Nutritional fitness, and Puberty, and poor in hygiene and other consequences.

#### **Percentage gained by adolescent girls in PNP questionnaire**

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**Figure-1**

A bar chart or bar graph is a chart or graph that presents categorical data with rectangular bars with heights or lengths proportional to the values that they represent. The bars can be plotted vertically or horizontally. A bar graph shows comparisons among discrete categories. The figure showing the percentage of adolescent girls in PNP Questionnaire (i.e Physical fitness, Nutritional fitness, Puberty) in knowledge attitude and practice on physical and nutritional fitness to prevent early puberty among adolescent girls was presented in Figure-1.

**SOCIO-DEMOGRAPHIC INFORMATIONS OF ADOLESCENTS GIRLS**

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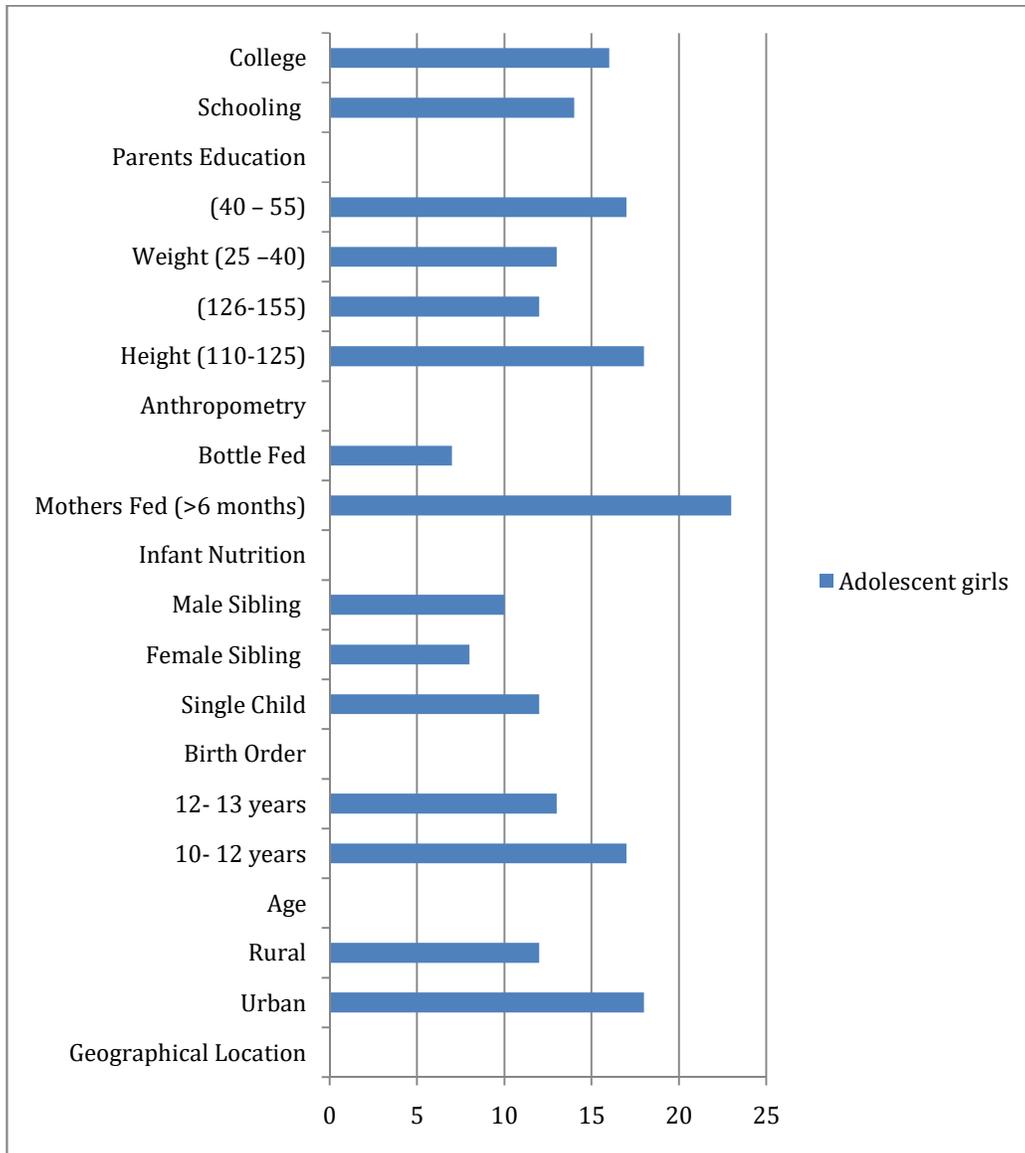


Figure-2

Figure-2 shows the socio-demographic information’s like Geographical location, age, birth order, infant nutrition, anthropometry; parent’s education of adolescent’s girls of knowledge attitude and practice to prevent early puberty.

**RESULTS**

The result of the study states that 3 girls at the age of ten, and 2 girls at the age of eleven and 1 girl at the age of twelve gained 50% to 60% (Poor) because of their poor in

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## CONCLUSION

The present study reveals that of adolescent age group have

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knowledge regarding nutrition but they are not well informed nutritional needs for maintaining good health. They are also not much aware of health effects and consequences of unhealthy eating practices. Therefore, there is a need for nutritional intervention programmes for teenagers. Educating the teenagers on nutrition and health aspects will go a long way to lead a better life. The present study reveals that of adolescent age group have knowledge regarding nutrition but they are not well informed

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The study reveals the knowledge attitude and practice on physical and nutrition fitness to prevent early puberty among adolescent girls. Creating alertness to early puberty through

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physical and nutritional fitness is essential to help the adolescent girls to handle early puberty related problems with confidence. By providing proper knowledge in physical and nutritional fitness to prevent early puberty in school through the proper education period will be a valuable resource for adolescent girls and for their future. The study makes recommendations about approaches for improving programs and policies for physical fitness and nutritional fitness to prevent early puberty in the school environment. This study lays out a set of guiding principles to work on these responsibilities. These included: recognizing the benefits of physical activity habits in adolescent girls; the value of consuming nutritional and healthier foods; discuss the difficulties in physical and mental changes during adolescent; make them to practice the habit of hygiene; make them to understand the importance of physical and nutritional fitness will prevent from early puberty; the school need to take into consideration the diversity of students as recommendations are developed.

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