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Knowledge and attitude regarding puberty attainment and menstrual hygiene among pre-adolescent girls

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Abstract

Background: The transition to adulthood is a critical stage of human development during which young people live childhood behind and take on new roles and responsibilities. It is period of social, psychological, economical and biological transitions and for many young people it involves demanding emotional challenges. It is the period of development of secondary sexual characteristics. Objectives: To assess the knowledge and attitude of pre adolescent girls regarding puberty attainment and menstrual hygiene, To find out the correlation between knowledge and attitude scores of pre adolescent girls regarding puberty attainment and menstrual hygiene and to find the association between the levels of knowledge and attitude scores of pre adolescent girls and selected demographic variables.

Methodology: A quantitative approach with exploratory co-relational survey design was adopted for the study. The samples from the selected high schools of Dharwad were selected using convenient sampling technique. The sample consisted of 60 pre adolescent girls. The tools used for data collection was knowledge questionnaire and structured attitude scale.

Results: The study result reveal that, With respect to knowledge scores, maximum 37(61.7%) respondents were having average knowledge, 15 (25%) respondents were having poor knowledge and remaining 8(13.3%) of respondents were having good knowledge and with respect to attitude majority 25(58.3%) respondents were having non favorable attitude, 20(33.3%) of respondents were having favorable attitude and remaining 5(8.3%) were having positive attitude. The correlation between knowledge and attitude scores is found not significant at $p < 0.05$ levels.

Conclusion: There is a need for the education for the pre adolescents students for the prevention of complications related to puberty attainment like anemia, menstrual hygiene etc.

Keywords: Knowledge, attitude, pre adolescents, puberty attainment, menstrual hygiene

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. Pre pubescent is the period of life before puberty, marked by increased growth associated with purity, innocence, and simplicity of life.

The transition to adulthood is a critical stage of human development during which young people live childhood behind and take on new roles and responsibilities. It is period of social, psychological, economical and biological transitions and for many young people it involves demanding emotional challenges. It is the period of development of secondary sexual characteristics. In India more than 80% of the girls in cities are reaching puberty attainment around age 11, indicates the survey that is being carried out in 100 centers — both urban and rural — across

four regions.

According to physical changes in girls during puberty attainment, girls start to change into women from the inside to the outside. Like boys, girls also start to grow hair in places where they never had hair before. The common puberty attainment changes include accelerated growth in weight and height gain, breast changes like pigmentation of the areola, and enlargement of the breast tissue and nipple, appearance of pubic hair and changes in vaginal secretions, activation of auxiliary sweat glands, appearance of auxiliary hair, onset of menstruation. Although periods start irregular, a girl can still become pregnant even before her first menstrual period. Puberty attainment is a period of rapid skeletal and sexual maturation that occurs mainly in early adolescence. The Stein Berg defined “puberty attainment as the biological changes of adolescence and biological developments, which can change girls from physical maturity to biological maturity”.

The most important factors in an adolescence journey through puberty attainment are peers, family, and school. Any disturbance in these three factors can be a heavy

burden on the growing adult. This could lead to depression, drug abuse, and criminal acts.

Most of the problems are derived from the widespread ignorance of the body changes and natural process which occur during puberty attainment. It is important for pre-adolescents to understand themselves and the functions of their body, so that they can cope up with the changes that are taking place within them, and develop healthy attitude to sex, marriage, parenthood and family.

The children should be well-oriented to the anatomical and functional differences between the sexes and the changes that indicate puberty attainment, before puberty attainment and adolescence. Nurses can provide knowledge to the pre-adolescents regarding the pubertal changes, so that they can consider them as normal physiological phenomena, and cope with the changes when they occur.

Objectives

1. To assess the knowledge and attitude of pre adolescent girls regarding puberty attainment and menstrual hygiene.
2. To find out the correlation between knowledge and attitude scores of pre adolescent girls regarding puberty attainment and menstrual hygiene
3. To find the association between the levels of knowledge and attitude scores of pre adolescent girls and selected demographic variables.

Hypothesis

H₁: There will be statistical significant correlation between knowledge and attitude scores of the pre adolescent girls regarding puberty attainment and menstrual hygiene at 0.05 level of significance.

H₂: There will be statistical association between the mean knowledge scores of pre adolescent girls regarding puberty attainment and menstrual hygiene and their selected demographic variables at 0.05 level of significance.

H₃: There will be statistical association between the mean attitude scores of pre adolescent girls regarding puberty attainment and menstrual hygiene and their selected

demographic variables at 0.05 level of significance.

Methodology

Research Approach: Quantitative Research Approach

Research Design: Exploratory co-relational survey design

Sampling technique: Non-Probability; Convenient Sampling Technique

Sample size: 60

Setting of study: Selected high schools of Dharwad

Method of data collection: Self report technique

Tools used

Part I: Demographic data: It consists of 7 items related to demographic data which includes age, educational status, religion, type of family, birth order, place of living and sources of knowledge.

Part II: Structured knowledge questionnaire

This section consists of 17 structured multiple choice items with the multiple options for each item to assess the knowledge of pre adolescents regarding puberty attainment and menstrual hygiene. The participant has to choose one right answer from given options. The right answer will be scored as 'one' mark and the wrong answer will be scored as 'zero' comprising the maximum score of 17. The total score is arbitrarily divided as Poor Knowledge (0-7), Moderate Knowledge (8-14) and Good Knowledge (15-17).

Part II: Structured attitude scale

A structured attitude scale consisted of 17 statements regarding puberty attainment and menstrual hygiene. There are five alternative response columns; strongly agree, agree, uncertain, disagree and strongly disagree. Among 17 statements, 15 positive statements are scored as; 5 score for strongly agree, 4 score for agree, 3 score for uncertain, 2 score for disagree and 1 score for strongly disagree. The remaining 5 statements are considered as negative and scored as; 1 score for strongly agree, 2 score for agree, 3 score for uncertain, 4 score for disagree and 5 score for strongly disagree. The total score range from 17 to 100.

The score is further divided arbitrarily as follows;

Classification	Score
Non favourable attitude	17 – 47
Favourable attitude	48 – 74
Positive attitude	75 – 100

Procedure of data collection

Data was collected after obtaining administrative permission from selected high schools of Dharwad. The investigator personally explained the participants the need and assured them of the confidentiality of their responses. Data was collected by face to face interview by researcher. The data analysis was done by using both descriptive and inferential

statistics.

Results

a. The findings related to socio-demographic variables of participants

Study comprised of 60 participants. The socio demographic variables are presented in following table.

Table 1: Frequency & Percentage Distribution of Respondents by socio demographic variables

n=60			
Sl. No	Demographic variables	Frequency (f)	Percentage (%)
1	Age in years		
	a. 8-10 years	12	20
	b. 11-12 years	26	43.3
	c. 13-14 years	22	36.7
2	Education level		
	a) Primary	21	35
	b) High school	39	65
3.	Religion		
	a. Hindu	25	41.7
	b. Christian	16	26.7
	c. Muslim	14	23.3
	d. Other	05	8.3
4	Type of family		
	a. Nuclear family	33	55
	b. Joint family	22	36.7
	c. Extended family	05	8.3
5	Birth order		
	a. I	32	53.3
	b. II	22	36.7
	c. III	03	05
	d. IV	03	05
6	Place of living		
	a. Urban	28	46.7
	b. Rural	32	53.3
7.	Source of knowledge		
	a. Mass media	18	30
	b. Family members and friends	22	36.7
	c. Books	12	20
	d. Others	08	13.3

b. Distribution Respondent's Scores According To Their Level of knowledge and attitude

1. Mean, median, mode, standard deviation and range scores of knowledge and attitude among participants.

Table 2: Mean, median, mode, standard deviation and range of knowledge and attitude scores of Respondents

n = 60					
Variable	Mean	Median	Mode	Standard deviation	Range
Knowledge	10.80	11	12	3.55	5-18
Attitude	46.85	45.50	33	14.41	23-85

Table 2 reveals pre test knowledge and attitude score of respondents regarding puberty attainment and menstrual hygiene, it shows that;

The knowledge scores respondents mean was 10.80, median was 11, mode was 12 with standard deviation 3.55 and score range was 5-18.

The attitude score, respondents mean was 46.85, median was 45.50, mode was 33 with standard deviation 14.41 and score range was 23-85.

2. Distribution Respondent's Scores According to Their Level of Knowledge and Attitude

Table 3: Frequency and Percentage distribution of respondents according to level of Knowledge regarding puberty attainment

Level of Knowledge		
Poor f(%)	Average f (%)	Good f (%)
15(25%)	37 (61.7%)	08(13.3%)

The data presented in the Table 3 depicts the respondent's level of knowledge during regarding puberty attainment and menstrual hygiene;

With regard to knowledge it shows that, maximum 37(61.7%) respondents were having average knowledge, 15 (25%) respondents were having poor knowledge and remaining 8(13.3%) of respondents were having good knowledge.

**Fig 1:** Level of knowledge**Table 4:** Frequency and Percentage distribution of respondents according to level of Attitude regarding puberty attainment n=60

Level of Attitude		
Pre test		
Non favorable f (%)	Favorable f (%)	Positive f (%)
35 (58.3%)	20 (33.3%)	5(8.3%)

The data presented in the Table 5 depicts the respondent's level of attitude regarding puberty attainment;

With regard to attitude it shows that, majority 25(58.3%) respondents were having non favorable attitude, 20(33.3%) of respondents were having favorable attitude and remaining 5(8.3%) were having positive attitude.

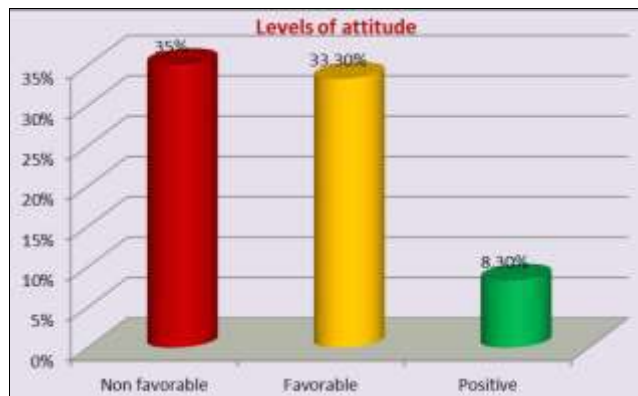


Fig 2: Level of attitude

3. Correlation Between Knowledge And Attitude Scores

In order to, find out the correlation of knowledge scores and attitude scores of pre adolescent students, a correlation coefficient was computed by using Karl Pearson's Co efficient of correlation.

H₁: There will be statistical significant correlation between knowledge and attitude scores of the pre adolescent students regarding puberty attainment at 0.05 level of significance.

Table 5: Correlation coefficient of knowledge and Attitude scores
n=60

Score	Mean score	Correlation coefficient
Knowledge scores	10.80	-0.15
Attitude score	46.85	

The data presented in Table 5 shows that the correlation between knowledge and attitude scores is found not significant at $p < 0.05$ levels. Thus the hypothesis H₁ is rejected, indicating no correlation between knowledge and attitude.

4. Association between Level of Knowledge, Attitude And Selected Socio Demographic Variables

The computed Chi-square value for association between level of knowledge of pre adolescent students regarding puberty attainment and their selected demographic variables is found to be statistically non significant at 0.05 levels for any of the selected socio demographic variables. Therefore, the findings do not support the hypothesis H₂, inferring that pre adolescent students level of knowledge regarding puberty attainment is not significantly associated any of the selected socio demographic variables.

The computed Chi-square value for association between level of attitude of pre adolescent students regarding puberty attainment and their selected demographic variables is found to be statistically significant at 0.05 levels for religion and is not found statistically significant for other socio demographic variables. Therefore, the findings partially support the hypothesis H₃, inferring that pre adolescent students level of attitude regarding puberty attainment is significantly associated only with their religion.

Conclusion

The findings revealed that pre adolescents students were had moderate level of knowledge and favorable attitude towards puberty attainment and menstrual hygiene. This suggests that, there is a need for the education for the pre adolescents students for the prevention of complications related to puberty attainment like anemia, menstrual hygiene etc.

Conflict of Interest

Not available

Financial Support

Not available

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