

Level Of Pubertal Anxiety Among Early Adolescent Girls With A View To Develop An Educational Booklet

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Abstract:

Introduction: Adolescence is an important stage in human life span. Physiologic changes associated with puberty manifest themselves in often complex and bizarre ways to which girls show different reactions to this stage. And so, it is no wonder that this developmental period is also a time of high anxiety that occasionally can lead to the all-too-common teenagers to panic and suicidal tendencies. These changes contribute to and impact their future development. This study was conducted to assess the level of pubertal anxiety among early adolescent girls with a view to develop an educational booklet.

Aim: The purpose of the study was to find out the association between the mean pubertal anxiety score and the selected demographic variables of early adolescent girls.

Materials and Methods: This descriptive survey study was conducted among 240 early adolescent girls from three stratified randomly selected schools at Thrissur District. Data was collected by using demographic proforma, tanner scale and pubertal anxiety scale and were tabulated, analyzed and interpreted using descriptive and inferential statistical methods.

Results: The findings of the study revealed that out of 240 early adolescent girls, 66.3% early adolescent girls were moderately anxious and 26.7% early adolescent girls had severe anxiety regarding puberty. The fisher's exact test for association showed that there was a significant association between level of pubertal anxiety and the educational status of the mothers of early adolescent girls and previous exposure to source of information regarding puberty. ($p=0.000 < 0.05$).

Conclusion: The study concluded that all study participants had anxiety regarding pubertal changes. So the investigator prepared an educational booklet and distributed to all the subjects who participated in the study. Therefore, this study recommends that the adolescents should be provided with health education before and during their puberty period to make them confident in dealing with their body changes effectively.

Keywords: Anxiety, Puberty, Pubertal anxiety, Early adolescent girls, Educational booklet.

I. INTRODUCTION

Adolescence is defined as the stage of life when individuals reach sexual maturity. This is the time when adolescents experience a change in their physical, social, and emotional aspects of life. According to the World Health Report (2002), adolescence is a critical life stage when life style choices are established including health related behaviours which impacts throughout life. The rapid physical changes create a strange state of mind in the adolescents. They

grow extremely sensitive. At times, they experience a sense of embarrassment because of those changes. The associated sexual changes also bring in a lot of psychological as well as emotional changes. So adolescence is considered as a period of 'storm and stress'.

According to the American Academy of Pediatrics, it is estimated that 2% of children under age 10 experience depression. However, between the ages of 10 and 14, the average age range of puberty onset, depression rates increase to 5% to 8% for children overall. Though rates of depression

are higher for boys than girls before puberty, the rate for girls becomes double that of boys during puberty. The hormonal changes associated with puberty occur in children as young as seven, which in turn may affect their emotional development and ability to cope with stress.

Time to time there are so many initiatives with the help of government, and National programmes have been conducted to improve the knowledge and increase the awareness of adolescent population about reproductive health. Schools had taken initiatives and sex education is a part of their syllabus. With all these, most of the parents still feel it difficult to discuss with their children. At this junction, the investigator had undertaken the present study of anxiety of early adolescent girls regarding puberty and hope this study will throw light into the need for improving mental health than only giving education.

AIMS AND OBJECTIVES

- The present study was designed to:
- ✓ Assess the level of pubertal anxiety among early adolescent girls
 - ✓ Find out the association between the mean pubertal anxiety score and the selected demographic variables of early adolescent girls.

II. MATERIAL AND METHOD

In this descriptive study, stratified random sampling technique was adopted. The schools in Thrissur district were divided into three subdistricts based on their geographical distributions such as Irinjalakuda, Thrissur (85 schools each) and Chavakkad (76 schools). Each subdistrict was taken as three stratas and from each stratum, one school was selected randomly. Two hundred and forty adolescent girls who met the inclusion criteria were enrolled as samples. The study was conducted in three schools at Thrissur - St.Antony's H.S.S, Mala, Union Higher secondary school, Mambra and St.Joseph's C.G.H.S.S. Once the participants were informed of the objective of the study and consent to participate was obtained, data were collected by:-

TOOL 1: Demographic proforma: It consisted of 7 items describing the socio demographic variables of early adolescent girls such as their age, class, religion, type of family, educational qualification of their mother, previous exposure to information and sources of information.

TOOL 2: Tanner Scale (screening tool for pubertal physical changes)

The pictorial representation of the tanner scale was given to the early adolescent girls and asked them to self report the stage which they belongs. Those early adolescent girls who rated themselves in tanner stage I and II were excluded.

TOOL 3: Pubertal anxiety scale

The prepared tool had 26 items. Each item was rated on a four point likert scale, and the total score was used to identify the early adolescent girl's anxiety level. The total score is 78. Based on the total score obtained, anxiety of the early adolescent girls was classified into four levels as:

0 = no anxiety

1-26 = mild anxiety
27-52 = moderate anxiety
53-78 = severe anxiety

III. RESULTS

- ✓ The study results revealed that 34.6% of the early adolescent girls were in the age group of 13 years and 9.2% of early adolescent girls were 10 years old.
- ✓ Out of 240, 32.1% of early adolescent girls were studying in eighth standard and 10.8% were in fifth standard.
- ✓ Nearly half (42.9%) of the early adolescent girls were Muslims and 15.8% were Christians.
- ✓ Majority (65.8%) of the early adolescent girls were from nuclear family and 33.3% were from joint family.
- ✓ The study findings showed that, 37.5% of mothers of early adolescent girls were educated up to high school level, 30.4% were graduates and 3.8% had only primary school education.
- ✓ The study results revealed that 88.8% of early adolescent girls had previous exposure to information regarding puberty and the remaining 11.3% had no previous exposure to information.
- ✓ Majority of the early adolescent girls (54.2%) obtained information regarding puberty from their parents, whereas 0.4% obtained information from parents, media as well as health workers.

DISTRIBUTION OF LEVEL OF PUBERTAL ANXIETY AMONG EARLY ADOLESCENT GIRLS

Among 240 early adolescent girls, 66.3% were moderately anxious and 26.7% had severe anxiety regarding puberty (Fig. 1). The mean, median, standard deviation and range of pubertal anxiety scores are shown in table 1.

Association between level of pubertal anxiety of early adolescent girls and selected demographic variables.

The investigator used Fisher's exact test for association to find out the association between the levels of pubertal anxiety of early adolescent girls and selected demographic variables. There was an association between the mean pubertal anxiety score and educational status of the mothers of early adolescent girls and previous exposure to information related to puberty ($p=0.000 < 0.05$). There is no significant association between pubertal anxiety score and remaining demographic variables.

TABLES AND FIGURES

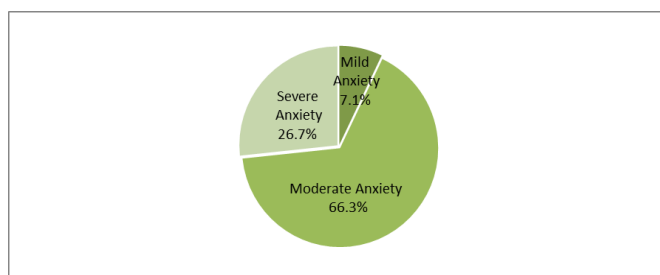


Figure 1: Percentage distribution of level of pubertal anxiety of early adolescent girls

Variable	Mean	Median	SD	Range
Pubertal anxiety	45.97	46.00	12.05	15-74

Table 1: Mean, median, standard deviation and range of pubertal anxiety scores of early adolescent girls

The above table shows that overall mean anxiety score was 45.97 with a standard deviation of 12.05.

I. DISCUSSION

The present study aimed at assessing the level of pubertal anxiety among early adolescent girls at selected schools at Thrissur District. The participants of the study consisted of 240 early adolescent girls.

The findings of the present study revealed that out of 240 early adolescent girls, 66.3% early adolescent girls were moderately anxious and 26.7% early adolescent girls had severe anxiety regarding puberty. These findings are consistent with a descriptive cross sectional study conducted on psychological status- prevalence of anxiety among prepubertal and pubertal girls which revealed that, out of 98 girls, 5% had very high anxiety level of puberty, 16% were in the high anxiety level and 27% were in the moderate anxiety level.² These findings are also closer to those reported in a study on psychosocial aspects of changes during adolescence among school going adolescent Indian girls. The results showed that 41% had anxiety and 26.4% reported low self esteem. Excessive irritability was reported by 47% of girls; undue anger by 51.4%, and 34.7% felt uncomfortable interacting with people. Association between the mean pubertal anxiety score and the educational status of the mothers of early adolescent girls was significant at 0.05 level (p -value=0.000). The above inference is consistent with the findings of the study conducted on effects of puberty health education on 10-14 year-old girls' knowledge, attitude, and behavior. The results showed that, the educational level of 36.8% of mothers of the 10-14 year old girls participated in this study was primary school and there was a significant relation between parents' education and knowledge and attitude towards puberty.

The study also shows a significant association between the mean pubertal anxiety score and previous exposure to source of information regarding puberty at 0.05 level (p -value=0.000). This finding is similar to the cross sectional study conducted by Yasmin et al. on factors associated with stress among 800 adolescents. The study findings showed that only 392 adolescents (49%) had information about body changes prior to puberty. Among female adolescents who had prior discussion about puberty, the mean estimated stress score decreased by -1.312 and it was revealed that the information regarding pubertal body changes prior to puberty ($p < 0.001$) was found to be significant.

The focus of the present study was to develop an educational booklet based on the pubertal anxiety level of early adolescent girls. The findings of the present study showed that all the study participants had anxiety. Among them, 66.3% early adolescent girls were moderately anxious and 26.7% early adolescent girls had severe anxiety. So the investigator prepared an educational booklet about the various bodily changes occurring during puberty in terms of body size,

body proportions, primary and secondary sex characteristics and effects of pubertal changes on attitudes and behavior. The booklet was validated with the help of five experts. The investigator then distributed the booklet to all the subjects who participated in the study.

In a study on effectiveness of reproductive health education among rural adolescent girls, 791 adolescent girls in the age group 16-19 years were randomly selected and educated regarding reproductive health and their awareness levels were evaluated immediately following intervention. The result indicated that there was a significant increase in overall knowledge after the intervention. The knowledge regarding menstruation and menstrual hygiene improved significantly from 77.2 to 95.6% and 91.8 to 100% respectively after intervention ($P \leq 0.05$).

In a quasi experimental study conducted on effects of puberty health education on 10 to 14 year-old girls' knowledge, attitude, and behavior, the girls were educated for three months by health teachers regarding physiologic, psychologic, physical and other information about puberty. The result of the study revealed that the mean score of female adolescent's healthy behaviour were significantly increased at the end of the educational course from 37% to 42%.

II. CONCLUSION

The present study was conducted to assess the level of pubertal anxiety among early adolescent girls with a view to develop an educational booklet in selected schools at Thrissur District. Stratified random sampling technique was used to select the adolescent girls. The tools used for the study are demographic data, tanner scale and pubertal anxiety scale. The statistical analysis of the study revealed that majority of adolescent girls were in the moderate anxiety level and also the study shows an association between the mean pubertal anxiety score and educational status of the mother and previous exposure to puberty.

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