

Original Research Article

## Prevalence of Stress, Anxiety and Its Correlates among Adolescents in Kannur District, Kerala, India

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### ABSTRACT

Transition into adolescence is a crucial period in one's life and may affect the psychological functioning of adolescents as they face changes related to puberty and pressure from family, peer group and academic matters. The current study was undertaken to identify the prevalence of stress, anxiety and its correlates among adolescents. Descriptive survey design was used. 1000 adolescent boys and girls in the age group of 15-19 years from Kannur district, Kerala, India were selected using multistage random sampling technique. Tools used include Socio-personal data sheet and Eight State Questionnaire- Modified. Findings showed that 569 of the samples (56.9 %) were girls and 431 of the samples (43.1%) were boys. Stress was found in 16 % of the samples and 17% had anxiety. 62 boys (14.4%) and 98 girls (17.2%) were having Stress and 63 boys (14.6%) and 107 girls (18.8 %) were having anxiety. There is a statistically significant association between stress, anxiety and selected variables-parent related factors, peer related factors, school and academic related factors. Positive correlation was found between stress and anxiety ( $r$  0.690). Stress and anxiety have an adverse impact on the health of adolescents. Hence, measures should be taken at school and community level to ensure its early recognition and treatment.

**Key words:** Stress, Anxiety, Prevalence, Adolescents, Eight state questionnaires.

### INTRODUCTION

Current global epidemiological data consistently report that up to 20% of children and adolescents suffer from disabling mental illness, suicide is the third leading cause of death among adolescents. Up to 50% of all adult mental disorders have their onset in adolescence. <sup>[1]</sup> Childhood and adolescence is the core risk phase for the development of anxiety that may range from transient mild symptoms to full-blown anxiety disorders. Lifetime prevalence of any anxiety disorders in studies with children and adolescents is about 20%. <sup>[2]</sup> National Co-morbidity Survey-Adolescent Supplement among 10123 adolescents aged 13 -18 years in the

US reported that anxiety (31.9%) was the most common disorder followed by behavior disorder (19.1%), mood disorders (14.3%) and substance use disorder (11.4%). <sup>[3]</sup> Adolescence can be a stressful time for children, parents and also others who work with them. Prevalence of stress among Indian adolescents varies from 13% to 45% among different studies done after the year 2000. <sup>[4]</sup> 93 to 100% of children had medium to moderate stress and 1.9% had severe stress in a study done to assess stress among school children in Thiruvananthapuram, India. <sup>[5]</sup> Exclusive data pertaining to adolescent psychological problems in various areas are limited.

Hence, detailed investigation is the need of the hour.

A cross-sectional study was carried out to identify the Prevalence of Stress, Anxiety and its correlates among Adolescents in Kannur district, Kerala, India. Objectives were to 1) Identify the prevalence of stress, anxiety among adolescents 2) Find the relation between stress, anxiety and selected variables.

## MATERIALS AND METHODS

Descriptive survey design was used to assess the prevalence of stress and anxiety among adolescents. 1000 Adolescent boys and girls in the age group of 15-19 years were selected from Kannur district, Kerala, India. Multistage random sampling technique was used to get the required sample. The study was done in 3 taluks of Kannur district. Out of 9 block panchayath in Kannur district, one grama panchayath was selected from each taluk. Adolescent clubs functioning under anganwadies in these grama panchayath were selected randomly. Tool used includes two sections,

**Section 1:** Socio-personal data to collect the background information of adolescents and to assess parental, school/academic and peer-related information,

**Section 2:** Eight State Questionnaire-Modified - 24 items measuring the Stress and Anxiety in the eight state questionnaire were used after few modification to suit for local use. Each question on the questionnaire has four options and positive statements are scored as 0,1,2,3 and

negative statements are scored as 3,2,1,0. Since there are 12 items per each state, the highest possible score is 36 and the minimum score is 0. A low score indicates the lower level of problems. Data was collected by using self-administered questionnaire. Average time taken for scoring was found to be 15 minutes.

### Statistical analysis

Data were entered in Microsoft excel worksheet and analyzed using Statistical Package for Social Science Software version 20. Socio- personal data, the prevalence of stress and anxiety were analyzed using frequencies and percentages. The relationship between stress, anxiety and selected variable was analyzed by chi-square test. Correlation between stress and anxiety was found using Pearson correlation.

## RESULTS

- Among the samples, 30.6 % (306) of the samples belonged to the age of 17 years adolescents aged 16,18,19 and 15 years constituted 27.8% (278),20.7% (207), 16.9% (169) and 4%(40) respectively.
- 569 of the samples (56.9 %) were girls and 431 of the samples (43.1%) were boys.
- Stress was found in 16 % of the samples and 17 % have anxiety (table- 1)
- Among the various factors examined for association with anxiety, statistically significant association was found between Anxiety and selected variables (Table-2)

Table 1: Frequency and percentage distribution of stress and anxiety among adolescents

Variable	Boys		Girls		Total	
	Frequency	%	Frequency	%	Frequency	%
Stress	62	14.4	98	17.2	160	16
Anxiety	63	14.6	107	18.8	170	17

Table 2: Association between Anxiety and selected variable

Anxiety	$\chi^2$	df	p value
Parents behavior towards adolescents	15.071	6	.020
Parents imposing restrictions	9.486	1	.002
Family atmosphere not conducive for learning	24.084	1	.000
School atmosphere-conducive	20.419	1	.000
Cope with academics	39.527	1	.000
Problem in peer relations	28.753	1	.000

- Statistically significant association was not found between anxiety and selected variables- gender, religion, type of

family, education, education of parents, occupation of parents, income, marital status of parents and number of siblings.

**Table 3: Association between Stress and selected variable**

Stress	$\chi^2$	df	p value
Parents behavior towards adolescents	47.793	6	.000
Parents imposing restrictions	5.023	1	.025
Family atmosphere not conducive for learning	13.401	1	.001
Conducive school atmosphere	31.973	1	.000
Ability to cope with academics	44.362	1	.000
Problem in peer relations	18.503	1	.000

Among the various factors examined for association with stress, there was a statistically significant association between Stress and selected variables- (Table 3)

- There was no statistically significant association between Stress and selected variables- gender, religion, type of family, education, education of parents, occupation of parents, income, marital status of parents and number of siblings
- Positive correlation was found between stress and anxiety (r 0.690)

## DISCUSSION

Present study revealed that the anxiety was found in 17 % of adolescents and 16% had stress, study confirmed that stress and anxiety were significantly higher among adolescents. These findings are in concordance with other study findings, prevalence of anxiety is 24.4% and stress is 20% in a study done by R J Chris today, Saddichha Sahoo (2010) among 500 college students in Ranchi, India. [6]

In the current study 62 boys (14.4%) and 98 girls (17.2%) were having stress, 63 boys (14.6%) and 107 girls (18.8 %) were having anxiety. In a cross sectional survey by Verma Vijay, Sinha Prakriti (2013) among 146 adolescents (55% male and 45% female) from Little Flower School at Jamshadpur, Jharkhand, India, the mean score of anxiety among female students was much higher in total and all subtypes of measured anxiety. [7]

Walsh Kerryann, Chatterjee Pooja, Deb Sibnath (2010) conducted a study to understand anxiety among 460 adolescents (220 boys and 240 girls) aged 13-19 years adolescents in Kolkata city, India. Findings

revealed that 20.1% of boys and 17.9% of girls were suffering from high anxiety. Boys were anxious than girls (P<0.01). [8]

In the current study statistically significant association was found between stress, anxiety and selected variables- Parents behavior towards adolescents, parents imposing restrictions on their adolescents, family atmosphere not conducive for learning, conducive school atmosphere, ability to cope with academics and problems in peer relations. This emphasizes the importance of healthy family -peer relation and comfortable school environment.

Positive correlation was found between stress and anxiety (r 0.690) in this study, Gordana Stankovska, Osmani Fadbi, Angel Koska Slagona (2016), in their study reported that Stressful life events were associated with anxiety (r .962). [9]

This study assessed stress and anxiety at one point of time, hence more large scale longitudinal studies are needed to assess the magnitude of stress and anxiety among adolescents in different areas.

## CONCLUSION

Study highlights the prevalence of stress and anxiety among adolescents. Identification of Stress and Anxiety enable to intervene proactively and prevent further problems. Various strategies can be planned to manage stress and anxiety among adolescents.

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