

Original Research Article

Impact of parenting approaches on adolescents' mental well-being: a cross-sectional study

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ABSTRACT

Background: Mental health disorder is a major public health problem across the world. It encompasses a wide range of disorders that are generally characterised by a combination of abnormal thoughts, perceptions, emotions, behaviours and relationships with others. Common mental disorders include depression, anxiety and stress. Recognizing the burden on families, particularly those affected by parental mental illness, highlights the need for family-focused interventions in India. Objectives were to study the prevalence of mental health disorders among adolescents (aged 13-16 years) in higher secondary schools and to determine the extent of parental involvement and association between adolescents' mental health disorders and parental involvement.

Methods: A cross-sectional study was conducted from July to October 2025 (4 months) among higher secondary school students of class 8th, 9th and 10th aged (13-16 years) from government schools of Raichur taluka. Four schools were selected from urban area of Raichur using lottery method and 310 participants were recruited using systematic random sampling. The questionnaire consisted of three parts: sociodemographic data, the parental authority questionnaire and depression, and the anxiety and stress scale (DASS-21).

Results: In our study, majority of the participants were having authoritative parenting style (40.49%), 35.69% of the participants were shown to have a permissive parenting style, 36.56% were having Authoritarian/ flexible parenting style.

Conclusions: In this study it was found that 36.56% of the parents of study subjects were authoritative. Significant association was found between permissive and authoritarian parenting styles with students having anxiety and stress.

Keywords: Adolescents, Academic stress, Mental health, Parenting styles

INTRODUCTION

Mental health disorder is a major public health problem across the world. It encompasses a wide range of disorders that are generally characterised by a combination of abnormal thoughts, perceptions, emotions, behaviours and relationships with others. Common mental disorders include depression, anxiety and stress.¹ Recognizing the burden on families, particularly those affected by parental mental illness, highlights the need for family-focused interventions in India.² To address this need, local studies have been

conducted to find the magnitude of depression, anxiety, and stress (DAS) among school-going adolescents in regions like Chandigarh and Mysuru, India.³ Mental health problems are not uncommon among adolescents in India, making it essential to estimate the affected population due to a lack of awareness regarding the seriousness of mental ill-health. National mental health survey of India 2015-2016 shows 7.3% prevalence of all psychiatric morbidity among 13-17 years age group.⁴ While some studies suggest parental involvement significantly affects academic stress, others have revealed no impact of parental involvement on academic anxiety

or achievement.⁵ While some studies suggest parental involvement significantly affects academic stress, others have revealed no impact of parental involvement on academic anxiety or achievement.⁶ Etiological models of child anxiety have identified various environmental factors, including parental factors, in its development. More specific findings show that a father's permissiveness is a risk factor for child anxiety disorders, whereas a mother's authoritativeness acts as a protective factor.⁷ Adolescence, a volatile period of growth between the ages of 10 and 19, is associated with increased vulnerability to these mental health problems. Factors such as academic pressure can contribute significantly to these mental health challenges.⁸ Parental engagement is one of the key factors that can influence adolescents' mental health status.⁹ Depression and anxiety are among the most widely recognized mental issues affecting youths, and research in Kathmandu, Nepal, estimated the overall prevalence of these issues among high school students. In fact, the overall prevalence of depression and anxiety among high school students in Kathmandu was found to be 56.5% and 55.6%, respectively.¹⁰ Mental health and behavioural problems are significant issues among students, including those commencing university in Northern Ireland.¹¹ Improving mental health literacy is crucial for late adolescents, particularly in regions like South India.¹² The parent-adolescent relationship plays a key role in adolescent development, influencing behaviour, physical health, and mental health outcomes.¹³ Research suggests that parental monitoring in late childhood/early adolescence longitudinally associates with a reduced risk of offspring major mental health problems.¹⁴ Interventions such as the Safeguarding Adolescent Mental Health in India (SAMA) school systems program are being developed to target adolescent anxiety and depression.¹⁵ Protective factors like social support, resilience, and self-esteem can act as safeguards against common mental health problems in early adolescence. To address these gaps, this study had the following objectives to study the prevalence of mental health disorders among adolescents (aged 13-16yrs) in higher secondary schools. To determine the extent of parental involvement and association between adolescents' mental health disorders and parental involvement.

METHODS

Source of data

Data collected from students aged (13-16 years) of selected total 4 schools among 54 government higher secondary schools.

Study subject

Adolescents of age 13-16 years attending selected government high schools of Raichur Taluka were selected.

Place of study

Study conducted at selected government high schools of Raichur Taluka.

Study design

It was a cross-sectional study.

Duration of the study

Duration of the study was 4 months (July-October 2025).

Sample size calculation

P=23.3% prevalence of mental health issues among 13-16-year-old adolescents is taken as per study done in 2024 by Prakash et al.¹³

Z=Z score for the desired confidence level (for 95% confidence, Z=1.96)

$q=1-p=1-23.3=0.767$

d=Allowable error=5%.

The formula used for sample size calculation is,

$$n = \frac{Z^2 pq}{d^2}$$

$$n = \frac{(1.96)^2 (0.233)(0.767)}{(0.05)^2} = 0.6862 / (0.05)^2 = 274.48$$

$$n=274.48 \text{ samples} \approx 275$$

Therefore, minimum sample size is 275 and attrition rate / non response rate of 10% were considered.

$$\text{Final sample size} = \frac{n}{1-P_{\text{lof}}} = \frac{275}{1-10\%} = \frac{275}{1-0.1} = 305.5$$

Hence the required sample size = 306 rounded of to 310

Therefore, total sample size is 310

Sampling method: systematic random sampling

After obtaining permission from Block Education officer of Raichur, a list of government high schools was obtained. A cross-sectional study was conducted among higher secondary school students aged (13-16 yrs). Purposively students of class 8th, 9th and 10th were taken from government schools of Raichur taluk. Raichur taluk was divided into four blocks (east, west, north, south) among total 54 schools, 1 school was taken from each block using lottery method and systematic random sampling every 5th student was selected till the sample size was reached. The questionnaire consisted of three parts: i) sociodemographic data, ii) the parental authority questionnaire and depression, and iii) the anxiety and stress scale (DASS-21).

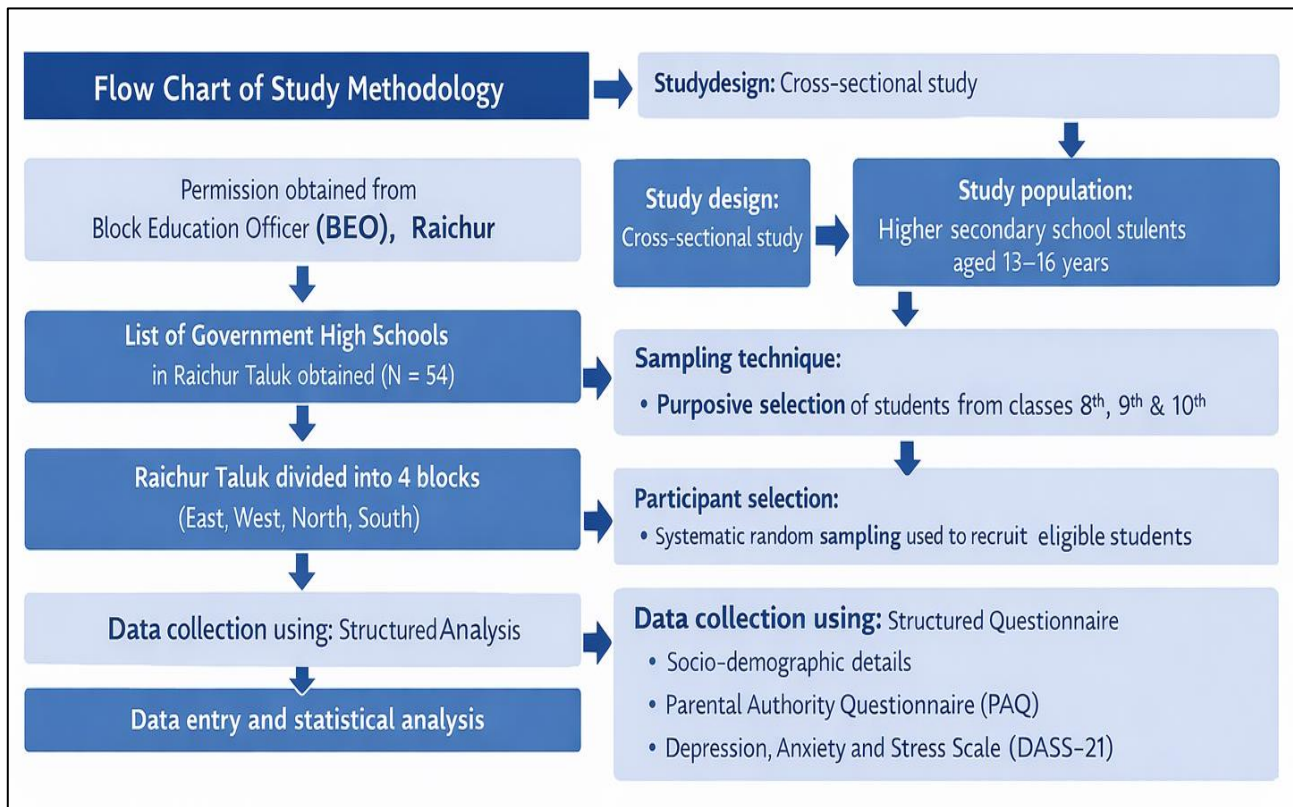


Figure 1: Flow chart of study methodology.

This way from each school approximately 78 students were selected, finally reaching the sample size 310.

Inclusion criteria

Students (age 13-16 years) who were registered and enrolled in the school and those who were present at the time of survey were included in the study.

Exclusion criteria

Those students (age 13-16 years) who were not willing to participate in the study and those who were absent at the time of survey were excluded from the study.

Ethical consideration

A cross-sectional study was conducted among students of Government High Schools located in the urban areas of Raichur taluka. The sample size was calculated based on a prevalence (P) of 23.3% as reported by G. Hari Prakash et al with an absolute precision of 5% and a 95% confidence interval (CI), yielding a total of 305 participants for the study.¹³

Prior to the commencement of the study, ethical approval was obtained from the Institutional Ethics Committee of Navodaya Medical College and Research Centre, Raichur (NMC/RCR/IHEC/2025-26/144). Subsequently, permission was sought and obtained from the Block

Education Officer, Raichur, to conduct the research. A list of government high schools in Raichur taluk was procured, and formal written consent was obtained from the principals of the selected schools after explaining the purpose and procedures of the study. Each interview session was explained to last approximately 20 minutes.

Data were collected using a pre-designed, pre-tested, and validated semi-structured questionnaire administered to all selected students. Participants were informed that they could contact the researcher for any queries or concerns. Assent/consent was obtained from all participants, and confidentiality was strictly maintained throughout study.

The questionnaire will be divided into three parts- Sociodemographic Proforma (age, sex, family type, parental education, occupation), DASS-21-to assess depression, anxiety, stress and PAQ-to assess parenting styles.

Statistical analysis

Data was collected and entered in Microsoft excel sheet and results were analysed using SPSS version 22. Proportion, mean, and percentages will be used for sociodemographic and other variables. To find out association between different variables Chi square and other suitable test will be used. Results will be presented in the form of tables and graphs. Statistical significance is taken if $p < 0.05$.

RESULTS

A total of 310 adolescents participated in the study. The majority were aged 13-14 years (188; 60.6%), while 122 (39.4%) were in the 15-16-year age group. Females constituted a higher proportion of the study population (182; 58.7%) compared to males (128; 41.3%).

Participants were equally distributed across nuclear and joint family structures, with 155 (50.0%) belonging to each category.

With respect to maternal education, 249 (80.3%) mothers had no formal education, followed by 45 (14.5%) with primary education and 14 (4.5%) with secondary education. Only 2 (0.6%) mothers had attained higher education. In comparison, paternal education was relatively better; 178 (57.4%) fathers had completed primary education, 84 (27.1%) had no formal education, 44 (14.2%) had secondary education, and 4 (1.3%) had higher secondary education.

Regarding occupation, 160 (51.6%) mothers were engaged in semiskilled work, while 150 (48.4%) were unemployed. Among fathers, 130 (41.9%) were unskilled workers, 103 (33.2%) were semiskilled workers, and 77 (24.8%) were skilled workers.

Assessment of socioeconomic status showed that 176 (56.8%) participants belonged to class V, while 134 (43.2%) were classified under class IV, indicating that most participants were from lower socioeconomic strata.

The descriptive statistics showed variation across the three domains were assessed. As depicted in pie chart 35.69% of the participants were shown to have a permissive parenting style, 40.49% showed Authoritative parenting style which was highest and 36.56% were having Authoritarian/ flexible parenting style. Overall, predominantly Authoritative parenting style score was highest which may reflect difference in parental control and discipline experienced by adolescents.

Most participants scored within normal limits on the DASS-21 anxiety subscale (n=272, 87.7%). Mild anxiety was present in 35 individuals (11.3%), while clinically

elevated symptoms were rare-only one participant (0.3%) reported moderate anxiety, and two participants (0.6%) fell into each of severe and extremely severe categories.

Depressive symptoms-Only 128 (41.3%) participants were classified as normal. Mild depression was seen in 73 (23.5%), while moderate depression was present in 91 (29.4%) participants. Severe and extremely severe depression was observed in 16 (5.2%) and 2 (0.6%) participants, respectively. Regarding stress levels, most participants were in the normal range (274; 88.4%). 21 participants (6.8%) showed mild symptoms of stress, 12 (3.9%) had moderate stress, and only three scored in the severe/ extremely severe level of Stress (0.6% and 0.3%, respectively). 23.5% of participants showed mild depressive symptoms, followed by 29.4% moderate, 5.2% severe, 0.6% extremely severe.

We evaluated the relationship between parenting practices and adolescent mental health ($p < 0.05$). Permissive parenting was significantly linked to both anxiety ($p = 0.001$) and stress ($p < 0.001$), but showed no correlation with depressive symptoms ($p = 0.995$). Authoritarian parenting was significantly tied to adolescent stress ($p = 0.022$) and anxiety ($p = 0.025$), but showed no connection with depression ($p = 0.991$). In contrast, authoritative (flexible) parenting showed no significant association with anxiety ($p = 0.708$), depression ($p = 0.966$)/stress ($p = 0.537$). Overall, parenting approaches in this sample were primarily tied to adolescent anxiety and stress rather than depression. The strong link between permissive parenting and higher anxiety and stress suggests that a lack of clear boundaries and structure may leave adolescents feeling unanchored. At the same time, the relationship between authoritarian parenting and heightened stress points to the strain that rigid control and high parental demands can place on teenagers.

None of the parenting styles correlated significantly with depression, pointing to other underlying drivers such as academic pressure, peer dynamics, or genetic predispositions behind low mood in this cohort. Meanwhile, the lack of adverse mental health outcomes under authoritative (flexible) parenting aligns with broader literature showing that balanced warmth and boundaries offer a protective buffer for teenagers.

Table 1: Sociodemographic characteristics of participants, (n=310).

Sociodemographic profile		N	Percent (%)
Age (in years)	13-14	188	60.6
	15-16	122	39.4
Gender	Male	128	41.3
	Female	182	58.7
Type of family	Nuclear	155	50
	Joint	155	50
Mother's education	No formal education	249	80.3
	Primary	45	14.5
	Secondary	14	4.5
	Higher	2	0.6

Continued.

Sociodemographic profile		N	Percent (%)
Father's education	No formal education	84	27.1
	Primary	178	57.4
	Secondary	44	14.2
	Higher secondary	4	1.3
Mother's occupation	Semiskilled	160	51.6
	Unemployed	150	48.4
Father's occupation	Skilled worker	77	24.8
	Semiskilled worker	103	33.2
	Unskilled worker	130	41.9
Socioeconomic status	Class 4	134	43.2
	Class 5	176	56.8

Table 2: DASS-21, (n=310).

DASS scoring		N	Percent (%)
Anxiety	Normal	272	87.7
	Mild	35	11.3
	Moderate	1	0.3
	Severe	1	0.6
	Extremely severe	1	0.6
Depression	Normal	128	41.3
	Mild	73	23.5
	Moderate	91	29.4
	Severe	16	5.2
	Extremely severe	2	0.6
Stress	Normal	274	88.4
	Mild	21	6.8
	Moderate	12	3.9
	Severe	2	0.6
	Extremely severe	1	0.3

Table 3: Association between parenting styles and mental health disorder.

Variables	Anxiety			Depression			Stress		
	Value	Df	P value	Value	Df	P value	Value	Df	P value
Permissive	176.900	120	0.001*	251.490	312	0.995	596.909	336	0.000*
Authoritarian	123.820	95	0.025	197.853	247	0.991	314.487	266	0.022
Authoritative/ flexible	101.439	110	0.708	243.820	286	0.966	305.041	308	0.537

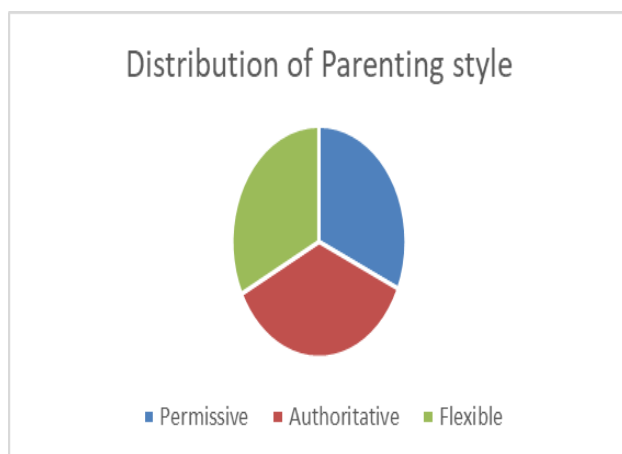
*Statistically significant $p < 0.05$.

Figure 2: Distribution of parenting style.

DISCUSSION

Authoritative parenting was the most common style among the 310 early adolescents in our Raichur sample, followed closely by flexible and permissive styles. Distress overall was low, except for depression, which affected far more adolescents than anxiety or stress. Permissive and authoritarian parenting were both linked to anxiety and stress, but not to depression; authoritative/flexible parenting showed no association with any of the three.

Our participants were slightly younger, mostly from lower socioeconomic backgrounds, and about half lived in joint families in a semi-urban/rural district rather than a city—a wider family circle may soften the effect of any one parent's style, consistent with Ballal et al point about

extended family as a buffer in Indian households.³ Anxiety and stress levels were notably lower than in Sandal et al Chandigarh sample, where over 80% showed anxiety and nearly half showed stress.¹⁴ Urban, exam-driven schooling may also simply carry heavier pressure than our setting does.

Depression was different: nearly six in ten adolescents scored above normal range, unrelated to parenting style. This contrasts with Arifin et al who tied authoritarian parenting to depression in Malaysian pre-university students, though our sample is younger and dealing with school transitions rather than admissions pressure, and at this age mood may be driven more by peer relationships and puberty than by parenting.¹ A single cross-sectional measure also can't capture the slower family dynamics linked to depression in longitudinal work. Locally, Vijaykumar et al found about 14% of adolescents in the same district scoring poorly on wellbeing using the Warwick-Edinburgh scale-different measure, same direction: depression deserves priority for screening here.¹⁵

The anxiety/stress link with permissive and authoritarian parenting fits the idea that both too little structure and too much control leave adolescents without a stable base for handling pressure. This differs from Sharma's Moga finding of no link between parental involvement and academic anxiety, but Sharma measured involvement narrowly (academic support, teacher contact), not the broader emotional climate parenting style captures. Together, this suggests the manner of involvement matters more than the amount.⁶

The cross-sectional design can't establish direction- an anxious child could shape parenting style as easily as the reverse. The sample is from one lower-socioeconomic, homogeneous district, so results may not generalize. Parenting style relied on adolescent self-report, not observed behaviour, and we didn't control for confounders like parental education or academic pressure. The DASS-21 reflects symptom levels, not diagnosis.

Overall, depression was the bigger concern and wasn't tied to parenting style, while anxiety and stress tracked with parental control and structure. This points to two directions: universal depression screening, and parenting guidance toward a middle ground between too little structure and too much. As Ballal et al note, Indian research on family-focused adolescent mental health is still thin; this study adds a small piece, though larger longitudinal, multi-site work is needed.³

Limitations

As this is a cross sectional study design and findings are based on information collected at a single point of time, parenting approaches and mental well-being may be influenced by other factors such as family environment, trauma etc. Selected schools from one geographical area

findings may have limited generalizability to adolescents from other settings.

CONCLUSION

As per our study findings 36.56% of parents of study subjects were authoritative. Significant association was found between permissive and authoritarian parenting styles with students having anxiety and stress. These findings suggest that the nature of parental involvement and disciplinary practices are important in shaping adolescents' mental well-being. Addressing modifiable factors like academic pressures and parenting practices through targeted interventions may help reduce the burden of mental health issues among adolescents in this region.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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