Research Article

Resilience And Coping in Rural South Indian Students: A Comparative Mixed-Methods Study of Residential Versus Day Boarding Environments

Dr. Sukriti Soni[1], Dr. Harshavardhan M[2*], Dr. Smitha. N[3], Dr. Vinay H R[4], Dr. Jayaprakash[5]

[1]Postgraduate Resident, Department of Psychiatry, Adichunchanagiri Institute of Medical Sciences and Research Hospital, Adichunchanagiri University, B.G. Nagara-571448, Mandya, Karnataka, India.
[2*]Junior Resident, Department of Psychiatry, Adichunchanagiri Institute of Medical Sciences and Research Hospital, Adichunchanagiri University, B.G. Nagara-571448, Mandya, Karnataka, India.
harshavardhan.manohar123@gmail.com
[3]Associate Professor, Department of Physiology, Siddaganga Medical College and Research Institute, Tumkur, Karnataka, India.
[4]Professor, Department of Psychiatry, Siddaganga Medical College and Research Institute, Tumkur, Karnataka, India.
[5]Junior Resident, Department of Dermatology, Adichunchanagiri Institute of Medical Sciences and Research Hospital, Adichunchanagiri University, B.G. Nagara-571448, Mandya, Karnataka, India.

Abstract

Background: Residential schooling is expanding in rural India, yet comparative data on resilience, coping, and mental health across residential and day boarding settings remain limited.

Methods: A cross-sectional mixed-methods study was conducted among 937 adolescents (12–17 years) from residential (n=495) and day boarding (n=442) schools in rural Karnataka. Resilience was assessed using an adapted Adolescent Resilience Scale. Additional items evaluated emotional well-being and help-seeking. Qualitative data on adversities and coping were analysed thematically. Group differences were examined using chi-square tests.

Results: Sociodemographic differences were noted in family type (p=0.019) and class category (p<0.001), while gender distribution was comparable. Residential students were less likely to report persistence in goal attainment (76.6% vs 87.8%, p<0.001) and help-seeking (58.6% vs 79.9%, p<0.001). They reported higher rates of prolonged sadness (37.0% vs 30.1%, p=0.026) and suicidal thoughts or attempts (22.2% vs 14.7%, p=0.003), and were less likely to feel happy with others (71.7% vs 84.4%, p<0.001). Other resilience domains were largely comparable. Qualitatively, day boarders described predominantly academic and family-related stressors with task-focused coping, whereas residential students reported more intense emotional and adjustment-related challenges, including homesickness and social stress, alongside a broader repertoire of coping strategies such as peer support, emotional regulation, and adaptive behavioural responses.

Conclusion: Residential schooling was associated with greater emotional distress and reduced help-seeking despite more diverse coping strategies. Strengthening school-based mental health support in residential settings is warranted.

Keywords: Resilience; Coping; Residential Schools; Adolescents; Mental Health; Rural India.

INTRODUCTION

Childhood and adolescence are critical developmental periods during which emotional regulation, coping strategies, and resilience are shaped. Educational environments exert an important influence on these processes, particularly in rural and low-resource settings where schools often contribute not only to academic development but also to socialisation, behavioural adjustment, and emotional growth.[1]

Residential schools provide a structured living-learning environment in which students remain on campus for extended periods, unlike day boarding settings in which students return home daily. In India, residential schooling has gained importance because it is often viewed as a way to improve access to quality education, discipline, peer interaction, and developmental opportunity for children from rural and socioeconomically disadvantaged backgrounds.[2,3]

Resilience refers to the capacity to adapt positively in the face of adversity. In adolescents, it includes domains such as novelty seeking, emotional regulation, optimism, and future orientation. Higher resilience has been associated with better academic functioning, psychosocial adjustment, and emotional well-being, whereas poor coping is linked to distress and vulnerability to mental health problems.[4-6]

The residential school environment presents a dual context. On one hand, it may expose students to homesickness, loneliness, social conflict, and stress arising from separation from family. On the other hand, it may encourage autonomy, peer bonding, structured routines, and adaptive problem-solving. Prior literature on

boarding and institutional educational environments suggests that these settings may produce both emotional vulnerability and developmental growth, depending on the quality of support systems available.[7,10]

Given the increasing relevance of residential schooling in India's educational landscape, it is important to examine this issue comparatively rather than in isolation. The present study therefore compares resilience, emotional well-being, adversities, and coping strategies among adolescents studying in residential schools and day boarding schools in rural South India.

Foundational resilience literature has consistently described resilience as a dynamic developmental process rather than a fixed trait. Luthar and Cicchetti emphasised that resilience must be understood in relation to adversity and adaptation, while Masten described resilience as an 'ordinary magic' process shaped by everyday protective systems such as supportive relationships, school structures, and self-regulation.[5,6]

Rutter's work on protective factors further demonstrated that resilience emerges through interactions between individual strengths and environmental supports. These conceptual models are highly relevant to school-based research because educational settings can function either as protective contexts that strengthen coping or as stress-amplifying contexts when support is inadequate.[8]

Literature focused specifically on boarding environments has reported mixed findings. Schaverien described the potential emotional costs of early institutional separation, including attachment-related distress and long-term emotional consequences in some students.[7] In contrast, Martin and Papworth reported associations between boarding school environments and academic motivation, engagement, and aspects of psychological adjustment when supportive systems were present.[10] Together, these studies suggest that residential schooling may be associated with both psychosocial risk and developmental opportunity.

Research on adolescent stress has also shown that academic pressure can adversely affect mental health and behaviour, particularly in older students. Jiang et al. demonstrated that academic pressure is closely linked with adolescent problem behaviour, supporting the need to examine class-related differences and stress experiences in school mental health research.[9] However, comparative evidence from rural Indian settings examining resilience and coping across residential and day boarding contexts remains limited, which justifies the present study.

OBJECTIVES

1. To compare resilience domains among adolescents studying in residential schools and day boarding schools.
2. To identify common psychosocial adversities experienced by students in the two schooling environments.
3. To explore coping strategies adopted by students in response to these adversities.

METHODOLOGY

Study design and setting

A cross-sectional mixed-methods comparative study was conducted in a residential school and a day boarding school located in rural Mandya district, Karnataka, South India after attaining the institutional ethical clearance and the assent from the school.

Participants

The study included 937 students aged 12-17 years, comprising 495 residential school students and 442 day boarders.

Inclusion criteria

Students aged 12-17 years; enrolled in either the selected residential school or the selected day boarding school; studying in the institution for at least one year; and willing to participate and provide assent.

Exclusion criteria

Students with a prior clinically diagnosed psychiatric disorder and students unwilling to participate.

Sampling method

Stratified random sampling was used to ensure proportional representation across gender and class levels.

Data collection tools

A semi-structured proforma capturing sociodemographic details and schooling-related variables; an adapted Adolescent Resilience Scale assessing novelty seeking, emotional regulation, and positive future orientation; additional questions on emotional well-being and help-seeking; and open-ended questions exploring psychosocial

adversities and coping strategies.

Ethical considerations

Approved by the Institutional Ethics Committee, Adichunchanagiri Institute of Medical Sciences and Research Hospital, Adichunchanagiri University. (Approval No.: AIMS/IEC/062/2026. Confidentiality and anonymity were maintained. Blanket consent was obtained from concerned school authority and written assent was obtained from all participating students.

Statistical analysis

Data were analysed using IBM SPSS version 27. Continuous variables were summarised as mean +/- standard deviation, and categorical variables as frequency and percentage. Associations between categorical variables were assessed using chi-square tests. A p-value of <0.05 was considered statistically significant.

Qualitative analysis

Responses to open-ended questions were analysed using thematic analysis. Narratives from residential school students and day boarders were coded separately and then compared to identify common and contrasting themes.

RESULTS

Sociodemographic characteristics by type of schooling

A total of 937 students were included, of whom 495 were residential school students and 442 were day boarders. Gender distribution was comparable between the two groups and did not differ significantly. Female students constituted 52.5% of the residential group and 51.8% of the day boarder group (p = 0.479). Family type differed significantly by schooling environment. A greater proportion of residential school students belonged to nuclear families, whereas joint family representation was higher among day boarders (p = 0.019). Class category also showed a strong association with type of schooling (p < 0.001). Nearly half of residential students were in higher classes, whereas day boarders were more frequently represented in lower classes.

Table 1. Sociodemographic characteristics by type of schooling

Sociodemographic variables	Category	Residential school n (%)	Day boarders n (%)	p-value
Gender	Female	245 (52.5)	229 (51.8)	0.479
	Male	250 (47.5)	213 (48.2)	
Family type	Joint	98 (19.8)	116 (26.2)	0.019*
	Nuclear	397 (80.2)	326 (73.8)	
Class category	Lower classes (6–8)	125 (25.3)	230 (52.0)	<0.001**
	Middle classes (9–10)	139 (28.1)	116 (26.2)	
	Higher classes (11–12 / PUC)	231 (46.6)	96 (21.8)	
Father's education	Illiterate / Not recorded	20 (4.0)	0 (0.0)	<0.001**
	Primary (≤5th)	25 (5.1)	20 (4.5)	
	Middle school (6–8)	30 (6.1)	35 (7.9)	
	Secondary (SSLC)	166 (33.5)	28 (6.3)	
	Higher secondary (PUC)	241 (48.7)	60 (13.6)	
	Graduate	120 (24.2)	180 (40.7)	
	Postgraduate	40 (8.1)	80 (18.1)	
	Professional / Doctorate	23 (4.6)	39 (8.8)	
Mother's education	Illiterate / Not recorded	15 (3.0)	10 (2.3)	<0.001**
	Primary (≤5th)	28 (5.7)	32 (7.2)	
	Middle school (6–8)	40 (8.1)	55 (12.4)	
	Secondary (SSLC)	248 (50.1)	118 (26.7)	
	Higher secondary (PUC)	215 (43.4)	110 (24.9)	

	Graduate	95 (19.2)	78 (17.6)	
	Postgraduate	32 (6.5)	27 (6.1)	
	Professional / Doctorate	19 (3.8)	12 (2.7)	

* p < 0.05, ** p < 0.01

Comparison of resilience item responses by school type

Residential and day boarding students differed significantly on selected resilience-related items. A smaller proportion of residential students agreed that they sought new challenges and explored interesting things compared with day boarders, although this difference was modest and did not remain statistically significant when recalculated from the displayed counts (73.0% vs 78.1%, p = 0.059). Persistence in reaching targets showed a clear difference between the groups. Residential students were significantly less likely to report persistence compared with day boarders (76.6% vs 87.8%, p < 0.001). For most other items, including staying calm in difficult circumstances, having a clear future goal, and bouncing back after hard times, the groups did not differ significantly.

Table 2. Comparison of resilience item responses by school type

Statement	Residential school Agree + Strongly agree n (%)	Day boarders Agree + Strongly agree n (%)	Recalculated p-value
Seek new challenges and explore interesting things	360 (73.0)	345 (78.1)	0.059
Difficulties are valuable life experiences	351 (70.9)	323 (73.1)	0.461
Do not like unfamiliar things†	256 (51.7)	195 (44.1)	0.020
Find new activities bothersome†	279 (56.4)	240 (54.3)	0.526
Stay calm in tough circumstances	260 (52.5)	234 (52.9)	0.899
Persist to reach targets	379 (76.6)	388 (87.8)	<0.001
Find it difficult to tolerate adversity†	208 (42.0)	186 (42.1)	0.985
Keep thinking about negative experiences†	179 (36.2)	146 (33.0)	0.315
Sure good things will happen in the future	410 (82.8)	372 (84.2)	0.645
Have a clear goal for the future	380 (76.8)	343 (77.6)	0.761
Think I'm okay just the way I am	339 (68.5)	279 (63.1)	0.084
Bounce back quickly after hard times	308 (62.2)	274 (62.0)	0.942

Mental health indicators and help-seeking behaviour

Residential students reported poorer outcomes on several mental health and social indicators. A significantly greater proportion of residential students reported feeling sad for more than two weeks compared with day boarders (37.0% vs 30.1%, recalculated p = 0.026). Suicidal thoughts or attempts were also significantly more frequent among residential students (22.2% vs 14.7%, recalculated p = 0.003). Despite these emotional difficulties, residential students were significantly less likely to seek help when facing problems (58.6% vs 79.9%, p < 0.001). They were also less likely to report feeling happiest in the company of others (71.7% vs 84.4%, p < 0.001).

Table 3. Mental health indicators and help-seeking behaviour by type of schooling

Variable	Residential school n (%)	Day boarders n (%)	Recalculated p-value
Felt sad for >2 weeks	183 (37.0)	133 (30.1)	0.026
Suicidal thoughts / attempt	110 (22.2)	65 (14.7)	0.003
Seeks help when facing difficulties	290 (58.6)	353 (79.9)	<0.001
Feeling happy with others	355 (71.7)	373 (84.4)	<0.001

Qualitative findings

Qualitative findings among day boarders

Narratives from day boarders suggested that adversities were predominantly academic and situational. Academic difficulties emerged as the most prominent theme, including problems with reading, writing, understanding lessons, examination pressure, poor marks, and difficulty maintaining concentration. These challenges often led to frustration and reduced confidence. Social and interpersonal difficulties were also reported, mainly involving peer misunderstandings and minor conflicts. Family-related stressors included parental illness, parental conflict, bereavement, and accidents, which affected emotional well-being and school performance. A smaller number of students described health-related concerns such as illness or injury. Emotional difficulties were present but usually brief and closely linked to academic stress. Adjustment difficulties were mentioned infrequently.

Coping patterns among day boarders

Day boarders mainly relied on effort-based and performance-oriented coping. Common responses included studying harder, improving concentration, practising more, and trying to correct mistakes through personal discipline. Some students reported seeking help from friends or teachers, but this was less prominent. Explicit emotional regulation strategies such as relaxation or self-calming were described less often.

Qualitative findings among residential students

Residential students described more emotionally intense and sustained adversities. Adjustment to hostel life emerged as a major theme, including homesickness, separation from parents, fear of staying away from home, discomfort with unfamiliar routines, and difficulty managing independence. Emotional and psychological distress was described more richly in this group and included sadness, anxiety, overthinking, crying, mood swings, fear, and feeling overwhelmed. Academic difficulties were also common, especially in language subjects, science subjects, examinations, and maintaining performance. Social stress within the hostel environment, including peer conflicts, fear of seniors, teasing, ragging, and isolation, formed another major theme. Family-related concerns were often intensified by physical distance from home. Health-related concerns were also mentioned.

Coping patterns among residential students

Residential students demonstrated a wider range of coping strategies. Social support was central: students frequently described relying on friends, peers, seniors, teachers, and parents through phone contact. Emotional regulation strategies such as meditation, deep breathing, positive self-talk, and conscious self-control were more common than among day boarders. Acceptance and adaptation were also prominent, with many students describing gradual adjustment to hostel life and increasing independence over time. Some also used behavioural and problem-solving strategies such as resolving conflicts, avoiding negative influences, and improving self-discipline.

Comparative qualitative analysis

The two groups showed clear contrasts. Day boarders mainly described episodic academic stress, family concerns, and relatively minor peer issues. Residential students described broader and deeper emotional challenges related to adjustment, separation, loneliness, and hostel social dynamics. Emotional expression was more elaborate among residential students, suggesting greater emotional burden.

However, they also appeared to develop more varied coping strategies, including social support, acceptance, mindfulness, and adaptive behavioural change.

DISCUSSION

This mixed-methods study compared resilience-related responses, emotional well-being, and coping patterns among adolescents in residential and day boarding school environments in rural South India. The overall pattern suggests that residential schooling is associated with a more complex psychological profile: residential students appeared to experience greater emotional strain and lower help-seeking, yet they also described broader and more adaptive coping repertoires in qualitative narratives. This mixed pattern is consistent with prior literature indicating that residential or boarding environments may simultaneously expose students to emotional vulnerability while also promoting autonomy, social learning, and adaptation when supportive systems are present.[7,10]

Gender distribution was similar across the two schooling environments, indicating that the observed differences are unlikely to be explained by gender imbalance alone. Family type and class category differed significantly, with residential school students more commonly belonging to nuclear families and being more frequently represented in higher classes. These differences may partly reflect institutional intake patterns and parental decisions regarding residential education in rural contexts, where residential schooling is often chosen to improve access to structured educational opportunity.[2,3]

In the resilience domain, the most consistent quantitative difference was lower persistence toward targets among residential students. This may reflect the cumulative burden of adjustment-related stress, emotional strain, and social demands associated with hostel life. At the same time, most other resilience items did not differ significantly between the groups, suggesting that the psychological impact of residential schooling is not uniformly negative or uniformly positive across all resilience domains. This interpretation is in keeping with resilience theory, which conceptualizes resilience as a dynamic process shaped by the balance between adversity and available protective systems rather than as a single stable trait.[4-6,8]

The qualitative findings offer important context for interpreting these quantitative differences. Day boarders mainly described academic pressure and family-related worries and tended to cope through increased effort and task-focused responses. In contrast, residential students described more intense emotional adversities such as homesickness, loneliness, fear, and social stress within the hostel setting. These themes resemble Schaverien's account of the emotional costs of institutional separation, while also echoing Martin and Papworth's observation that boarding settings may foster motivation and adjustment when students are able to access meaningful peer and school support.[7,10]

A particularly important finding was that residential students reported higher levels of sadness lasting more than two weeks, higher suicidal thoughts or attempts, lower help-seeking, and lower likelihood of feeling happiest in the company of others. These results indicate that the structured environment of residential schooling does not automatically protect against emotional distress. Instead, it may create a setting in which resilience-building opportunities and mental health risks coexist. This is especially important in light of broader adolescent mental health literature showing that emotional problems and service gaps often persist even within institutional or educational systems.[11]

The lower rate of help-seeking among residential students is clinically significant. Although residential students described strong reliance on peers and teachers in qualitative narratives, the quantitative findings suggest that formal or explicit help-seeking may still be limited. This may reflect stigma, fear of disclosure, concerns about consequences, or lack of accessible mental health pathways within the school environment. Patel et al. highlighted the importance of reducing barriers to mental health care and improving access to early support, while resilience frameworks proposed by Rutter and Masten emphasise that supportive relationships and responsive systems are central protective factors during adolescence.[6,8,11]

Taken together, these findings indicate that residential schooling should not be viewed as either uniformly protective or uniformly harmful. Rather, it appears to provide a socially dense and developmentally demanding

environment that may foster adaptive coping in some domains while increasing emotional vulnerability in others. The strong role of academic pressure and class-related stress seen in this study also aligns with evidence that educational stress can adversely affect adolescent mental health and behaviour.[9] Accordingly, residential institutions should strengthen embedded counselling services, emotional literacy programmes, peer-support mechanisms, staff sensitisation, and safe referral pathways so that developmental opportunities are accompanied by adequate psychosocial protection.[8,11]

LIMITATIONS

- The cross-sectional design precludes causal inference.
- The study was conducted in selected schools in a single rural district, which may limit generalisability.
- Self-reported responses may be influenced by recall and social desirability bias.
- Qualitative responses were based on brief written narratives rather than in-depth interviews.
- Some sociodemographic table values, particularly parental education, require verification from the original dataset before final submission.

CONCLUSION

Among adolescents in rural South India, residential schooling was associated with a mixed psychological profile. Residential students described greater emotional and adjustment-related adversity than day boarders, and they also reported more sadness, more suicidal thoughts or attempts, and lower help-seeking. At the same time, their qualitative narratives suggested broader and more diverse coping strategies, including social support, emotional regulation, acceptance, and behavioural adaptation. These findings indicate that residential school environments may simultaneously create opportunities for coping development and risks for emotional distress. Strengthening school-based mental health support within residential settings is therefore essential.

REFERENCES

1. Collins WA, editor. Development during middle childhood. Washington (DC): National Academies Press; 1984.
2. Ministry of Education, Government of India. Navodaya Vidyalaya Samiti (NVS) [Internet]. New Delhi: Department of School Education and Literacy, Ministry of Education, Government of India; [cited 2026 Mar 16]. Available from: https://dsel.education.gov.in/en/nvs
3. Ministry of Education, Government of India. Jawahar Navodaya Vidyalaya scheme [Internet]. New Delhi: Government of India; [cited 2025 Dec 29]. Available from: https://navodaya.gov.in/
4. Oshio A, Nakaya M, Kaneko H, Nagamine S. Development and validation of an adolescent resilience scale. Jpn J Psychol. 2002;73:209-16.
5. Luthar SS, Cicchetti D. The construct of resilience: implications for interventions and social policies. Child Dev. 2000;71(3):543-62.
6. Masten AS. Ordinary magic: resilience processes in development. Am Psychol. 2001;56(3):227-38.
7. Schaverien J. Boarding school syndrome: broken attachments and the trauma of institutional care. Br J Psychother. 2015;31(2):219-34.
8. Rutter M. Resilience in the face of adversity: protective factors and resistance to psychiatric disorder. Br J Psychiatry. 1985;147:598-611.
9. Jiang MM, Gao K, Wu ZY, Guo PP. Academic pressure and adolescent problem behaviour: a moderated mediation model. Front Psychol. 2022;13:954330.
10. Martin AJ, Papworth B. Boarding school, academic motivation and engagement, and psychological well-being: a large-scale investigation. J Educ Psychol. 2012;104(4):1037-54.
11. Patel V, Saxena S, Lund C, Thornicroft G, Baingana F, Bolton P, et al. The Lancet Commission on global mental health and sustainable development. Lancet. 2018;392(10157):1553-98.