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Academic Stress Among Pre-University Students of the Commerce Stream: A Study in Karnataka

Shreemathi Sureshramana Mayya[1]*, Maxie Martis[2], Arun Mayya[3], Vani Lakshmi Ramesh Iyer[1] and Anirudh Ramesh[1]

[1]Department of Data Science, Prasanna School of Public Health, Manipal Academy of Higher Education, Manipal 576104, India
[2]Nursing College, All India Institute of Medical Sciences, Bhopal 462020, India
[3]Department of Conservative Dentistry and Endodontics, Srinivas Institute of Dental Sciences, Surathkal, Mangalore 575021, India

ABSTRACT

Academic-related demands that exceed students' adaptive capabilities are collectively known as academic stress. High levels of academic stress are associated with an increased likelihood of depression, insomnia, substance addiction, self-harm, suicidal ideation, and subsequently, quitting education. Globally, academic stress is now a common phenomenon due to COVID-19-induced changes in the education system. Knowledge of the magnitude of academic stress and its factors can enable early recognition, intervention, and alleviation of the problem. The objective of this study was to assess the magnitude of perceived academic stress and identify the main stressors through a cross-sectional survey using the Manipal Inventory of Academic Stress scale. The study participants involved 2152 Grade 11 and 12 Commerce students enrolled in 34 pre-university colleges in coastal Karnataka. A stratified cluster sampling method was used in the study. Statistical methods, namely descriptive statistics, multiple linear regression analysis, two-sample independent t-test, and one-way ANOVA tests, were used in the study. The study observed that one in every four pre-university students experienced high levels of perceived academic stress. Parent expectations, academic queries from neighbours and relatives, and lack of time for revision were identified as the top three stressors. Gender, grade, and mother's education were associated with academic stress. Interventions at the individual, family, institutional, and community levels are the need of the hour to safeguard

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E-mail addresses:
shreemathi.mayya@manipal.edu (Shreemathi Sureshramana Mayya)
maxie.nursing@aiimsbhopal.edu.in (Maxie Martis)
mayya.arun@gmail.com (Arun Mayya)
vani.lakshmi@manipal.edu (Vani Lakshmi Ramesh Iyer)
anirudharamesh1609@gmail.com (Anirudh Ramesh)
* Corresponding author

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adolescents from negative experiences that might deprive them of wellness in their future.

Keywords: Academic stress, adolescents, commerce, COVID-19, MIAS, parental pressure, pre-university

INTRODUCTION

Seeking formal knowledge in the structured and controlled environment of the educational institution is a crucial phase in a child's life. While the gains in acquiring knowledge are numerous, the competitive technology-oriented world of today has brought forth a variety of academic stresses, a few of them resulting in tragic or traumatic incidents. Academic pressure has been eroding the early years of adolescent school life, especially in Asian countries, and has had adverse effects on the mental and physical well-being and aptitude to execute academic activities effectively. Academic issues have become a source of chronic stress among the younger population having consequential associations with depression, anxiety, and suicide (Huan et al., 2008). As per United Nations International Children's Emergency Fund (UNICEF; 2019), ensuring adolescent's safety, health, and life skills should be a priority to benefit a country's continued development socially, politically, and economically.

Stress is considered a negative emotional, cognitive, behavioural, and physiological process when individuals adjust to or deal with stressors (Bernstein et al., 2012). Academic stress may be a consequence of the interplay between several factors. School-related elements such as higher academic burden (Rentala, Nayak, et al., 2019), academic schedules (Tang & Westwood, 2007), frustrations related to academic failure, or even fear of an eventual failure (Reddy et al., 2018), poor academic performance, criticisms from teachers/parents, a few incidents at school environment (Liu & Lu, 2012), and the presence or absence of support facilities or systems may influence the intensity of stress. The absence of pocket money, peer rivalry, lack of time management and social skills, long study hours with inadequate time for relaxation, and expectations of rote learning are all significant sources of academic stress (Agolla & Ongori, 2009; Deb et al., 2015). In addition, high parental expectations, societal demands, apprehension about social disapproval, need for peer approval, uncertainty in the job market and ever-rising aspirations make them highly vulnerable to stress or depression (Mathew et al., 2015). In India, academic achievement at the higher secondary level plays a decisive role in admission to higher education programs (Rentala, Nayak, et al., 2019). With the larger rural-urban divide, the limited or unevenly distributed public higher educational institutions across regions, and the non-affordability of higher education in the private sector by the non-elite population (Kingdon, 2007), the increasing number of seekers for the limited seats of a professional program and the nature of high stakes examinations to gain entry to the professional program, the adolescents, especially those in higher

secondary education programs experience undue anxiety and pressure.

With the largest adolescent population in the world, India has over 253 million adolescents, i.e., one in every five Indians is between 10 and 19 years (UNICEF, 2019). Enrolment in higher secondary and tertiary education programs is also on the rise (Kingdon, 2007) and the educational environments across institutions (private and public) are not alike in India. Prevalence of academic stress among adolescents in higher secondary and tertiary programs is documented in the Indian literature (Deb et al., 2014; Nikitha et al., 2014; Rentala, Lau, et al., 2019; Roy et al., 2015; Venkatachalam & Chellamuthu, 2019). The association between academic pressure and various behavioural and emotional disorders such as depression, frustration, anxiety, helplessness, and suicidal tendencies among adolescents has also been established (Bhat et al., 2018; Deb et al., 2015). High levels of academic stress are also associated with an increased likelihood of depression, insomnia, substance addiction, self-harm, suicidal ideation and subsequently, quitting education (Pascoe et al., 2019). Adolescent suicides in India have been an alarming rise in recent years (Sivagurunathan et al., 2015). However, it is noteworthy that the prevalent beliefs and stigma related to mental illness and lack of or inadequate health-seeking practices, especially for issues of psycho-social origin among the Indian population, could also be a factor for the rising traumatic incidents in India as per World Health Organization (WHO; 2020) report. One way to help the Indian adolescent population would be to screen them for psycho-social issues or stressors at regular intervals and during crises if any, during their studies and make appropriate timely referrals.

The coastal region of the south Indian state of Karnataka is a hub for professional education programs and attracts learners from India and abroad. The three coastal districts, Udupi, Dakshina Kannada, and Uttara Kannada, top the higher secondary education results of the state. This cross-sectional study uses a validated tool Manipal Inventory of Academic Stress, to gather baseline data on the perceived academic stress of adolescents in higher secondary education in the region. The present research serves as an enabler in understanding, planning, and implementing region-specific, effective strategies to promote adolescents' mental health. The study aims to assess the magnitude of academic stress, identify the stressors, and find associations between academic stress and the sociodemographic variables.

METHODS

The Design, Setting, and Population

The present descriptive study adopted a cross-sectional (correlational) survey design. The study population involved Grade 11 and 12 Commerce students enrolled in Pre-University Colleges of Coastal Karnataka, including Dakshina Kannada, Udupi, and Uttara Kannada. Udupi district has 114, Dakshina Kannada District has 220, and Uttara Kannada District has 101 Pre-University Colleges.

The Sample, Sampling Technique, and Sample Size

Pre-University Colleges in Coastal Karnataka, which were convenient to visit, were approached keeping in mind the budget, time constraint, and feasibility (COVID-19 pandemic). Among the 42 colleges approached, 34 responded to the request. A stratified (district-wise) cluster (colleges) sampling technique was used to identify ten colleges from Udupi and twelve colleges each from Dakshina Kannada and Uttara Kannada districts of Karnataka. The proportion of public to private institutions in the sample in each district was 50:50. Of the 2,720 parents approached, 2,152 expressed consent for their child's participation in the study.

Ethical Consideration

Institutional Ethics Committee approved the project under the registration IEC 414/2019 dated 12.06.2019. Permissions from the Deputy Director-Pre-University Colleges (DDPU) in each district and administrative heads of the Pre-University colleges were obtained. A document giving information for parents and an informed consent form were prepared to explain the objectives and importance of the survey, funding agency, project director, and institution. Respondents were assured of anonymity and confidentiality and were requested for voluntary participation. Informed assent/consent was obtained from parents/ participants.

Data Collection Tools

An unpublished validated tool, MIAS (submitted for Copyright, Diary Number: 6593/2020-CO/L), was used to obtain the data to assess the perceived academic stress. The objective of the tool development was to have a comprehensive yet straightforward assessment mechanism that caters to the pre-university student community in India.

MIAS has three parts. The first part of the MIAS included demographic variables, namely, age, gender, grade, locality (rural/ urban), type of family (nuclear/joint), number of siblings, literacy status of the mother, literacy status of the father, enrolment in the private coaching centre, type of residence (hostel/parental home), and financial assistance (parents/bank loan/ others). The second part of the tool contains 19 items on a five-point Likert-type rating scale. The response choices were no stress (1), slight stress (2), moderate stress (3), high stress (4), and extreme stress (5). Twelve experts validated MIAS. Items rated as relevant by at least 80% of the experts were retained (Ayre & Scally, 2014). As per the experts' suggestions, space was provided for the respondents to specify other academic stressors, if any. It became the third part of MIAS, consisting of an open-ended question enabling the study participants to share any other stressor not part of the original 19 items.

A pilot test was held using MIAS in two Pre-University Colleges. The participants' reported items were self-explanatory. The internal consistency coefficient, Cronbach's Alpha of the scale computed from the pilot study data (n=96), was .87. A Cronbach's

alpha of .7 or higher indicates acceptable reliability (Robinson et al., 1991). The higher the obtained score of MIAS, the more was the stress.

In the present study, Cronbach's Alpha of the MIAS (n=2,139) was .91, indicating high internal consistency. Confirmatory Factor Analysis (IBM SPSS Amos 25) was carried out to test how well the 19 items represented the unidimensional construct associated with academic stress. Based on the Chi-square goodness of fit test ($x^2(152) = 1562, p < 0.001$), the observed data do not reasonably fit to the hypothesized model by using maximum likelihood estimates. However, this could be due to the large sample size, and hence, it is pertinent to consider other fit indices. Towards this, the following fit indices, namely, Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR), have also been considered in the study. It is suggested that a value of 0.90 or higher for CFI and TLI, RMSEA of 0.08 or lower, and an SRMR of 0.05 or lower were the indicators for a good fit of the observed data to the hypothesized model (Pituch & Stevens, 2015). In the present study, the values of the indices: CFI (0.90), TLI (0.89), RMSEA (0.066, 90% CI: 0.063 to 0.069), and SRMR (0.040) provide evidence to support the hypothesized model. The factor loading for each item was above 0.60 for 18 items and 0.54 for the remaining one item.

Data Collection

Each college was visited at least two times for the data collection. During the first visit, the study was explained to the head of the institution, submitting a permission letter from the DDPU of the respective district. Two teachers assisted in distributing and collecting the document giving 'Information for Parents' and an 'Informed Consent Form' to the commerce stream's Grade 11 and 12 students. During the second visit, the questionnaire was administered in the respective institution by a trained research assistant/member of the project team/class teacher after obtaining/receiving informed consent/assent from parents/students. Table 1 presents the number of Pre-University colleges visited and the associated response rate.

Table 1
Grade-wise number of pre-university colleges visited and the response rate

	Grade 11	Grade 12	Total
Total number of Pre-University colleges visited	34	34	34
Parent consent requested	1360	1360	2720
Number of students who responded after the consent from parents*	1109	1043	2152
Response rate overall (%)	81.50	76.69	79.10
Response to all items of MIAS**	1098	1041	2139
Response rate of MIAS (%)	80.70	76.50	78.63

*Few did not provide information about parents' education and left some or all the MIAS items blank.
**Manipal Inventory of Academic Stress (MIAS)

Data Analysis

The data were summarized by computing frequency, percentage, mean, and Standard Deviation (SD) depending on the variable type. Scores of MIAS against various demographic variables were compared by applying a two-sample independent t-test and one-way ANOVA. Multiple regression analysis was carried out to identify the demographic variables significantly associated with academic stress scores adjusting for the influence of other variables. Response to open-end questions was pooled and listed in the order of appearance in the respondent forms.

RESULT

Characteristics of the Participants

The participants were in the age group 15-19 years, studying in grades 11 and 12. The mean (SD) age of the participants in grade 11 was 16.2 (0.56), and that of Grade 12 was 17.12 (0.52). Among the 2,152 participants of this study, 1,109 (51.5%) were of grade 11, and 1,332 (62%) were girls. Fifty-eight and 28 students did not provide information about their father's and mother's education. Response to every item of MIAS was available for 2,139 (99.4%) participants.

Distribution of Academic Stress Score

Table 2 presents the distribution of academic stress scores. The observed score range (Maximum–Minimum) shows a good spread of scores. It is important to note that the maximum possible range of scores for MIAS is 19–95, and from Table 2, the range of scores obtained for Grade 11 respondents is 19-86 and Grade 12 respondents is 19-89. It indicates a good spread of scores.

Prevalence of Academic Stress

The stress scores were categorized as mild (19–35), moderate (36–55), high (56–65), and extreme stress (66 and above). The cut-offs for the scores were chosen based on the approximated first three quartiles and the 90th percentile values. The categorization of academic stress scores reveals that about 9% of Grade 11 and 12% of Grade 12 participants experience extreme stress. About 15% of Grade 11 and 17% of Grade 12 students experience high stress (Table 3).

Table 2
Descriptive statistics – Perceived academic stress score

	Grade 11	Grade 12	Combined Group
n	1098	1041	2139
Mean	44.23	46.18	45.18
SD	14.58	15.07	14.85
Minimum	19	19	19
Maximum	86	89	89
First Quartile (Q_1)	33	34	33
Median	43	45	44
Third Quartile (Q_3)	55	58	56

Table 3
Grade-wise stress category and perceived academic stress score

		Grade 11		Grade 12	
Stress category	Score range	Freq.	Percent	Freq.	Percent
Mild	19–35	345	31.4	294	28.2
Moderate	36–55	486	44.3	454	43.6
High	56–65	168	15.3	172	16.5
Extreme	66 and above	99	9.0	121	11.6
Total		1 098	100.0	1 041	100.0

Identification of Major Academic Stressors

Table 4 presents the item-wise frequency distribution of experiencing high (or extreme) stress factors sorted in the descending order of the percentages for the 2139 study participants. From Table 4, it is pertinent to note that parents' expectations about the academic performance, academic queries from neighbours or relatives, lack of time

Table 4
Item-wise distribution of students experiencing high or extreme stress

Academic Stress Scale items	Grade 11 (n=1098)		Grade 12 (n=1041)		Combined Sample (n=2139)	
	Count	%	Count	%	Count	%
Parents' expectations about the academic performance	369	33.60	393	37.80	762	35.60
Academic queries from neighbours or relatives	323	29.40	399	38.30	722	33.80
Lack of time for revision	272	24.80	338	32.50	610	28.50
The exam syllabus is very vast	256	23.30	276	26.50	532	24.90
Lack of fluency in English	251	22.90	280	26.90	531	24.80
Too frequent class tests	232	21.10	265	25.50	497	23.20
Lack of time for co-curricular activities or hobbies	235	21.40	218	20.90	453	21.20
Fear of failure in exams	236	21.50	201	19.30	437	20.40
Lack of concentration during studies	208	18.90	231	22.20	439	20.50
Pressure from teachers for better results	194	17.70	229	22.00	423	19.80
Discussion by friends on the extent of revision before exams	180	16.40	217	20.80	397	18.60
Hectic school timetable	211	19.20	168	16.10	379	17.70
Competitive learning environment	160	14.60	202	19.40	362	16.90
Confusing study material	167	15.20	173	16.60	340	15.90
Distractions due to social media	155	14.10	183	17.60	338	15.80
Financial difficulties	148	13.50	178	17.10	326	15.20
Hesitation to get help from teachers	145	13.20	160	15.40	305	14.30
Poor interest in a few subjects	157	14.30	131	12.60	288	13.50
Lack of guidance to prepare for the exam	139	12.70	144	13.80	283	13.20

for revision, vast exam syllabus and lack of fluency in English are the top five stressors among Grade 11 students. Along similar lines, academic queries from neighbours or relatives, parents' expectations about the academic performance, lack of time for revision, lack of fluency in English and vast exam syllabus are the top five stressors for Grade 12 students in the same order of preference. For the combined data, Parent's expectations about performance, academic queries from neighbours or relatives, and lack of time for revision were the top three stressors. Furthermore, nearly 20–25% of the Grade 12 students felt that lack of fluency in the English language, very vast syllabus, too frequent class tests, lack of concentration during studies, pressure from teachers for better results, lack of time for co-curricular activities or hobbies, and friends discussing on the extent of revision before exams were causing stress.

In addition, based on the responses to the open-ended question, the researchers observed that most of the additional stressors were related to COVID-19 pandemic induced changes in the education system. It included fear of the COVID-19 pandemic and concerns relating to online/remote learning, technology and infrastructure deficits to online learning, increased screen time, addiction to mobile gaming, increased family pressure as the students were studying from their homes, difficulty in concentration and teacher's involvement in personal lives of the students. It is important to note that all the concerns are related to the pandemic itself.

Demographic Variables Associated with the Academic Stress

Based on the univariate analysis presented in Table 5, it is concluded that the mean perceived stress score is significantly different across gender ($p<.001$), Grade ($p=.002$), enrolment in tuition class ($p=.046$), and parent's level of education (father: $p=.015$, mother: $p=.006$). The researchers observe that male students have higher perceived academic stress when compared with female students. Also, Grade 12 students have higher perceived academic stress when compared with Grade 11 students. Interestingly, students enrolled for tuition have higher perceived stress when compared with their other peers. It could be due to the additional pressure from the tutors as well. It also appears that parents with

Table 5
Demographic variables associated with perceived academic stress (univariate analysis)

	n	Mean	SD	t / F value	p-value
Gender					
Male	812	46.62	14.87	3.509	<.001*
Female	1327	44.30	14.77		
Grade					
Grade 11	1098	44.23	14.58	-3.045	.002*
Grade 12	1041	46.18	15.07		

Table 5 *(continue)*

	n	Mean	SD	t / F value	p-value
Current Residence					
Parent's home	2033	45.16	14.93	-0.214	.830
Hostel or other	106	45.48	13.16		
Medium of Instruction (till Grade 10)					
English	959	45.45	15.28	0.758	.449
Other	1180	44.96	14.49		
Whether Enrolled for Tuition					
Yes	363	46.60	16.45	2.00	.046*
No	1776	44.89	14.49		
Type of Family					
Nuclear	1631	45.03	14.73	-0.810	.418
Joint	508	45.65	15.23		
Financial Support for Education					
Parent financing	2093	45.2	14.86	0.354	.723
Bank loan or other	46	44.41	14.12		
Father's Education					
Grade 4 and below (Primary)	356	44.72	14.83	3.520	.015*
Grade 5–8 (Middle School)	650	44.40	14.43		
Grade 9–12 (High School)	852	46.33	14.92		
Graduation/Post-Graduation	236	43.45	15.20		
Mother's Education					
Grade 4 and below (Primary)	363	43.50	14.34	4.210	.006*
Grade 5–8 (Middle School)	690	45.30	14.91		
Grade 9–12 (High School)	864	46.20	14.79		
Graduation/Post-Graduation	211	43.19	15.40		
Number of Siblings					
Zero	226	43.93	16.55	1.001	.368
One	1039	45.18	14.86		
Two or more	874	45.50	14.35		
Type of College					
Government	777	44.64	13.58	1.267	.205
Private	1362	45.49	15.52		
Location					
Rural	1488	44.82	14.52	-1.71	.087
Urban	651	46.01	15.54		
District					
Dakshina Kannada	643	45.99	15.10	1.382	.251
Udupi	696	44.89	15.20		
Uttara Kannada	800	44.78	14.32		

*significant at a 5% level of significance

lower education levels are stressors for the students. The statistical analysis was carried out using a two-sample independent t-test and one-way ANOVA in IBM SPSS 26.0.

In order to strengthen this understanding and explore the collective impact of the variables on the perceived academic stress score, a multiple linear regression analysis was carried out using IBM SPSS 26.0. The result of the analysis is presented in Table 6. Based on the results, it is concluded that gender (p<.002), grade (p=.006), and mother's level of education were found to be associated significantly with academic stress. The stress score was higher among the children of mothers with middle school (p=.039) or high school education (p<.016) when compared with primary education.

Table 6
Multiple regression analysis: Variables associated with perceived academic stress

Model	Unstandardized Coefficients		t	p-value	95% confidence interval for β	
	b	Std. Error			Lower Bound	Upper Bound
(Constant)	40.180	2.205	18.225	<.001*	35.86	44.50
Gender (Male)	2.123	0.674	3.150	.002*	0.80	3.45
Grade (12)	1.812	0.654	2.769	.006*	0.53	3.09
Residing with parents	-0.643	1.497	-0.429	.668	-3.58	2.29
Medium of Instruction till 10th grade (English)	0.185	0.799	0.232	.817	-1.38	1.75
Enrolled for tuition (Yes)	0.955	0.925	1.032	.302	-0.86	2.77
Type of family (Nuclear)	-0.598	0.769	-0.778	.437	-2.11	0.91
Financial support for education from Bank or others	-1.032	2.312	-0.446	.655	-5.565	3.50
Father's Education						
Grade 5–8 (Middle school)	-1.037	1.002	-1.034	.301	-3.00	0.93
Grade 9–12 (High school)	0.327	1.030	0.317	.751	-1.69	2.35
Graduation or Post-graduation	-1.863	1.464	-1.272	.204	-4.73	1.01
Mother's Education						
Grade 5–8 (Middle School)	2.077	1.005	2.066	.039*	0.11	4.05
Grade 9–12 (High School)	2.537	1.052	2.412	.016*	0.474	4.60
Graduation or Post Graduation	-0.038	1.561	-0.025	.980	-3.099	3.02
Number of siblings						
One	1.508	1.120	1.346	.179	-0.689	3.71
Two or more	2.154	1.188	1.814	.070	-0.175	4.48
College type (Private)	0.921	0.769	1.198	.231	-0.586	2.43
Location (Urban)	1.024	0.759	1.349	.177	-0.464	2.51
District (Dakshina Kannada)	1.010	0.837	1.206	.228	-0.632	2.65
District (Udupi)	-0.046	0.836	-0.055	.956	-1.686	1.59

*significant at a 5% level of significance

Enrolment in tuition class did not show a significant association when adjusted for the influence of other variables. The regression model accounts for 2.4% of the variability in the perceived academic stress, $F(19, 2073) = 2.627$, $p < .001$, $R^2 = .024$, Adj-$R^2 = .015$. Regardless of the low value of R^2, the interpretation of the association between stress and demographic variables holds good.

DISCUSSION

Adolescence (10–19 years) is a formative stage, often referred to as a stage of stress and storm. The evolving changes in one's physical growth and the gradual orientation to the expectations from the social environment (may it be family, school, and other institutions) pose greater demands on psycho-social adjustments. While the context of living in adolescence is predominantly 'dependent,' moreover unique to an individual depending upon his or her situation, the adaptation to the challenges would also be unique. Therefore, promoting adolescents' psycho-social well-being is vital to ensure healthy development.

Adolescents' health has a detrimental effect on the family, the community, the state, or the nation. Using a locally developed, comprehensive, validated tool to screen academic stressors would help measure the level of stress and identify specific and common stressors at the individual, institutional, and regional levels. The knowledge of the prevalence and the variables affecting their health is of interest to policymakers for planning health and related welfare services at the institutional and community levels. The present study reveals that academic stress is prevalent among adolescents, a finding similar to studies in the region (Leeshma & Colaco, 2019; Nikitha et al., 2014; Tomar et al., 2014) and in India (Deb et al., 2014; Rentala, Nayak, et al., 2019; Roy et al., 2015; Venkatachalam & Chellamuthu, 2019). The common stressors among adolescents showcased in a review (Chandan & Shivappa, 2020) were lack of competence, inability to cope with studies, disturbed family dynamics, peer pressure, and the lack of a robust support system (teachers, parents, and administrators). In the present study, three of the top-ranked stressors reported by adolescents with high stress were primarily external to the educational institution. Studies in the coastal region (Tomar et al., 2014; Verma, 2019) report that adolescents in higher secondary schools (public, private, and aided) used adaptive coping strategies, but their strategies differed. Measures specific to the individual and institutions in the region, such as awareness/education/training programs for students, parents, and teachers, are necessary (Leeshma & Colaco, 2019). An intervention plan should involve all stakeholders and emphasize collective efforts (learners, parents, teachers, and the head of the department or the institution, local government under each district administration) to mitigate the stressors or their risk factors.

In the present study, multiple regression analysis revealed that academic stress was

higher among the male adolescents, Grade 12 students and adolescents with mothers whose education level was higher than secondary. Further, in the present study, there are two other relevant observations: the literacy level of parents, especially mothers in the region, and the number of females who participated in the study. These findings reflect the growing importance of educating the female population in coastal Karnataka. However, academic stress is more prevalent among male children in the family. Male dominance is deep-rooted in Indian societies. The gender socialization process and the roles, the interwoven religious attitudes, beliefs, and moral values (Basu et al., 2017; Gupta & Sharma, 2002) might be the factors responsible for this observation. While the rising literacy level among women might pave the way to remove the inequality soon in the coastal region, greater attention is required to reduce the stress of Grade 12 students. The pressure for best performance was more in Grade 12 as achievements obtained in the year are a criterion for admission to higher education programs (Deb et al., 2015; Rentala, Nayak, et al., 2019). However, as the competitive environment was a stressor to only about 17% in this study, the academic stress seems to be originating primarily at the family level, which requires a redressal as the students are now spending most of their time at home doing their academic engagements.

Deb et al. (2015) reported that parental pressure and parents' education level had a significant association. In their study, the father's education level was associated with academic stress (the stress was more when the father was a non-graduate), contrary to the present study. Thus, adolescents whose parents are less educated are likely to experience more stress. A few studies report that students whose parents possessed a greater level of education performed better on standardized tests (Davis-Kean, 2005; Moon & Lee, 2009). A few studies also demonstrate positive influences on parents' education (Abd-El-Fattah, 2006; Rapheal & Paul, 2018). Counselling the parents whose education level is less than graduation might be relevant in the context of coastal Karnataka. Educational institutions and community organizations should plan activities for the students and parents of the region about career guidance, awareness programs on opportunities or alternatives available in the field of interest, and the provision of lateral entry in the chosen stream, if any, to build their self-confidence (Chandan & Shivappa, 2020; Leeshma & Colaco, 2019).

The present study's findings bring out two crucial contextual social factors that require primary focus: parents' expectations about the adolescent's academic performance and the academic queries from neighbours and relatives. In India, the overall unemployment situation, or the awareness of competition for admission to higher education institutions or jobs, pushes parents to pressure their children for academic achievements (Deb et al., 2015). The lower level of education of parents, parents comparing their child's performance with other students of class

or neighbourhood or themselves, options available for parents to arrange private tutors/tuition classes, other unique parent-specific attributes like comparing the past (their times) and the present (the avenues provided by them to the child), the parent wishing to fulfil own dreams through their children, are some of the other factors influencing parental pressure (Deb et al., 2015). Further academic queries from neighbours and relatives are often a distractor for adolescents. In India, the family and social structures are close-knit. Academic queries like the marks, tuition classes, ranks scored or other achievements from neighbours and relatives are common. The parents may even be told that their child may not make it to the next level with the marks scored, filling the adolescent and their family with a sense of insecurity, leading to tension at home. Because of such queries, the parents may employ stricter measures to make their child perform well academically, adding to the existing academic stress.

Adolescents in the present study reported a lack of time for revision and co-curricular activities or hobbies, a finding similar to previous studies (Agolla & Ongori, 2009; Alsulami et al., 2018; Deb et al., 2015; Yusoff et al., 2010). In addition, about 10% of students in the present study, in response to an open-ended item, expressed "excessive homework and no time to read", "homework is a burden", and "poor management of time in examinations", which reflect students' inability to manage time. Further findings, namely, very vast exam syllabus, too frequent class tests, fear of failure in examinations, and hectic time schedules (Reddy et al., 2018; Tang & Westwood, 2007), reflect that elaborate study routine spanning the whole day leaves little time for relaxation or social activities. In addition, confusing study material, hesitancy to get help from teachers, and lack of guidance in preparation for the examination depict that student needs more time to learn by self-effort. While a closer look at each of these factors is essential both at individual and administrative levels, there is also a need to emphasize the meaningful involvement in extracurricular activities, training or guidance in time management skills, preparation for examinations, and overall development of the adolescents which invite collective efforts of district and the community administration.

Lack of fluency in English had an association with univariate analysis but was not a factor influencing the academic stress, as revealed in the multiple regression analysis. Government schools in India primarily use the local language in teaching-learning activities till the tenth Grade and introduce English as a subject only by 5th Grade (Tomar et al., 2014). The medium of instruction in Grades 11 and 12 in English. Students from these schools who may be compelled to study subjects in poorly mastered English in the 11th and 12th grades may face communication and comprehension issues, affecting their self-confidence and academic performance (Deb et al., 2015).

A few other stressors also require due attention. In the Asian context, academic stress arising from adolescents' self-expectations and expectations of others (e.g., parents and teachers) are particularly salient (Ang & Huan, 2006). Such expectations may be a source of anxiety for the child in some situations, which can harm their academic performance (Chellamuthu & Venkatachalam, 2019). Pressure from teachers and parents was reported in the present study. The coastal region is a hub of educational institutions and occupies the top position (more than 90% pass percentage in 2020) in the Pre-University Board examination results of Karnataka. The institutions might be under constant pressure to improve quality, retain/progress in rank/position, and invite the best students to the collegiate programs. This need may be reflected in the adolescents in the form of teachers' expectations, which would cause or aggravate stress.

Further, the findings of this study should be interpreted in the context of the COVID-19 pandemic, which was a major stressor as reported by the participants in response to an open-ended item. The increased access to digital learning resources has led to problematic technology use, and excessive time spent on social media and gaming, all of which may require interventions (Kar et al., 2020; Mahapatra & Sharma, 2020; Singh et al., 2020). Support from family, school, and the community plays a vital role in adolescent life, especially during the pandemic.

The present literature does not indicate if academic stress has any positive or beneficial effects on students (Putwain, 2007). The extent to which academic stress can be considered good or bad regarding the student's performance is a question arising from research and can be explored in further studies.

CONCLUSION

The study revealed that a considerable number of students of Grades 11 and 12 of the commerce streams were experiencing academic stress in the coastal Karnataka region of India. Parent expectations, academic queries from neighbours and relatives, and lack of time for revision were identified as the top three stressors among the students. Thus, it becomes imperative to identify the stressors and the students experiencing academic stress. Similar studies must regularly be carried out in different geographical locations to identify the stressors and plan interventional programs. Safeguarding adolescents from negative experiences and risk factors that may limit their ability to thrive is crucial for their well-being and physical and mental health as adults.

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