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An Analysis of the Factors Contributing to Stress in Public and Private Sector Students of Pakistan

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ABSTRACT

This study aimed at assessing academic stress sources among students from private and government institutions. The sample consisted of 300 participants from schools, colleges, and universities throughout both sectors. The study aimed to investigate the impact of academic stress on adolescents. Another purpose was to assess the researched variable concerning demographics (gender and institutions). A standardized instrument was employed; the Educational Stress Scale for Adolescents, developed by Sun, Dunne, Hou, and Xu (2010), consists of 16 items with a 5-point scale. This novel instrument for measuring academic stress can assess the multiple aspects of educational stress, including study pressure, grade anxiety, despondency, self-expectation, and workload. The Cronbach's alpha for the complete 16-item ESSA scale was .81, signifying strong internal consistency. T-tests and ANOVA were conducted on the data using SPSS. T-test analysis revealed a significant difference between students from both sectors for the analyzed variable. ANOVA indicates a substantial difference among pupils at the school, college, and university levels.

Introduction

Adolescence is a period of both positive and unfavorable developmental changes. During this developmental stage, they experience physiological, psychological, and social changes. Stress among adolescent students has become a significant concern in both public and private educational institutions, influencing their academic performance, mental well-being, and overall development. While stress is a common experience among students, the factors contributing to it can vary depending on the type of institution they attend. Additionally, social dynamics, peer pressure, and extracurricular commitments further contribute to the stress levels of adolescents in both sectors. Understanding these factors is crucial for developing effective interventions and support systems to promote students' mental health and academic success (Baluwa, Lazaro, Mhango & Msiska, 2021). Education is a crucial factor in the economic and social advancement of a nation. The

quality of education in a nation reflects the caliber of its human resources. This study aims to analyze and compare the sources of stress among public and private sector students, providing valuable insights into the unique challenges they face and potential strategies for stress management (Cupak, Majda, Puchała, & Kamińska, 2016).

The 2009 report by the Government of Pakistan indicated that the country allocated merely 2% of its budget to education. Ninety percent of primary students and seventy percent of secondary students are enrolled in public institutions. There is a growing trend towards the private sector. In Pakistan, the public sector alone cannot provide the entire demand for quality education; therefore, the private sector is contributing to alleviate this burden. Both sectors are endeavoring to deliver education to the populace. The private sector is experiencing an annual growth rate of 25%. Public sector students often face challenges such as overcrowded classrooms, limited resources, and high competition for academic success, whereas private sector students may experience stress due to high parental expectations, financial pressures, and rigorous academic demands (Hirsch, et al., 2015).

Academic performance, encompassing learning and achievement in schools, colleges, and universities, significantly influences future employment and career prospects. The stress experienced within an academic setting can impact both students and teachers, regardless of the educational level (Doyle, et al., 2017). Academic stress refers to the mental distress associated with expected academic challenges or the potential for failure, as well as the recognition of the possibility of academic shortcomings. The World Health Organization emphasized the importance of students being healthy and emotionally secure to fully engage in their education (Labrague, et al., 2017). Higher secondary time is pivotal as it shapes future careers and is a significant phase characterized by several changes, necessitating cautious management. Academic stress may stem from teachers' demands to submit assignments punctually, coaching lessons, lack of weekend holidays, extended working hours, repeated examinations, and concerns about achieving excellent grades and preparing for competitive exams to get admission to prestigious universities. Labrague and colleagues (2018) discovered that academic factors, including examinations, grades, studying, and self-imposed pressures to achieve, are primary sources of stress for high school students.

Additionally, stress may originate from parents, family, neighbors, friends, and society. Parental expectations over their children's academic achievement appear to be a cause of stress for students (Lee, Clarke, & Carson, 2018). The examination revealed a considerable disparity in parental pressure correlated with variations in educational attainment, occupation, and the availability of academic resources such as tutoring. The academic qualifications of fathers also influence the academic achievement of students. Fathers with inferior academic qualifications appeared to exert greater pressure on their children about academic performance. Indian children from non-disruptive families experience higher academic stress than those from disruptive families. Disruptive families likely offer diminished attention and advice to their children about academics, which exacerbates educational stress and negatively affects parental involvement in their academic lives (Liu, Yang, Chen, Zhang, Zeng, & Li, 2022). Stress originates inside the social context. It thrives in complex and competitive situations and emerges in less motivated environments.

In numerous countries, the incidence of student suicide attempts is alarmingly high, primarily attributed to academic stress. Individuals often fail to recognize their stress, which is frequently observed by others. Stress manifests both directly through physiological symptoms and indirectly through psychological symptoms (Nebhinani, Kumar, Parihar, & Rani, 2020). Individuals must manage life stress through effective coping strategies. College and university students encounter

various challenges that incessantly pressure them to excel. They struggle with final examinations and project deadlines, while additional factors such as financial insecurity and insufficient communication with peers exacerbate their stress. Many independent students may resort to detrimental habits, including substance abuse, internet addiction, and gambling. Furthermore, other contributing factors include difficulties in time management, excessive workload, demanding tasks, responsibilities, and inadequate training (Cupak, et al., 2016).

Stress is unavoidable in education. When individuals recognize their stress, they can alleviate it through fundamental acts. Educational institutions should devise strategies to alleviate stress upon recognizing stress-related issues. Students currently see a necessity for assistance when their issues escalate and necessitate intervention (Preto, et al., 2018). Students encounter stress both from their expectations as well as those imposed by parents and educators (Ang & Huan, 2006). Students employ several coping mechanisms to manage academic stress. Some individuals exhibit avoidant coping mechanisms, such as substance use, denial, and behavioral disengagement, while others confront stress through preparation, positive reframing, and proactive measures to mitigate stressful circumstances (Sultan, Ali, Jamal, & Ahmed, 2022).

It was discovered that most stressed and unstressed teenagers were aged 14 to 16 years. Stressed adolescents regarded academics as onerous. Yasmin, Hussain, Parveen, and Gilani (2018) characterized stressors as any scenario or occurrence that jeopardizes individuals' regular functioning and necessitates adjustment. These sources of stress are referred to as "stressors." Stressors are demands imposed by the internal or external environment that disrupt equilibrium, hence impacting physical and psychological health and necessitating measures to restore balance. The academic grading processes and the abundance of courses seemed to be the main sources of students' stress, while social and personal elements caused the least amount of stress. The curriculum is heavily conceptual, school timings are unsuitable, the student-teacher ratio is excessive, classroom environments are unproductive, there is a lack of constructive teacher-student interaction, disciplinary rules are unreasonable, physical punishment is employed, schoolwork is excessive or unbalanced, teaching methodologies are inadequate, teachers exhibit indifference, there is an overemphasis on weaknesses rather than strengths, and there are high expectations from both students and teachers (Zhao, et al., 2015; Fatima, et al., 2022).

Furthermore, the following factors have been identified as correlations of academic stress according to literature: academic workload, lecture attendance, examinations, school curriculum, insufficient learning resources, and subject-specific projects. Perceived stress or pressure from academic endeavors differs by gender. Females typically report higher levels of stress or pressure compared to males (Rafati, Nouhi, Sabzehvari, & Nayyeri, 2017). One reason could be that females are more inclined to perceive academic success as highly significant and more concerned about the prospect of academic failure. In Western nations, students from ethnic minority groups, particularly those of Asian descent, have higher levels of academic stress compared to their peers (Jameson, 2014). Studies have been undertaken to compare the many facets of public and private schools globally. Ribeiro, and coworkers (2017) analyzed numerous studies comparing public and private schools, concluding that private schools in the USA enhance students' performance as assessed by standardized tests of verbal and mathematical skills. Reports indicate that average student performance is generally superior in private schools compared to public institutions.

Shaban and co-researchers (2015) discovered in the comparative study that educators in English medium schools employ multiple teaching methodologies, offer greater instructional materials, maintain smaller class sizes, and organize more co-curricular activities, including art and science

exhibitions, in contrast to Urdu medium schools, which are predominantly public institutions. A study with a survey of 249 college students at a university in the Midwest. The research indicated that worry, poor time management, and insufficient engagement in activities beyond academia were significant predictors of academic stress. The research indicated that whereas female students exhibited superior time management skills compared to their male counterparts, they also encountered elevated levels of stress and anxiety (Akeela & Ashok, 2018).

A comparative analysis of the effectiveness of public and private schools has been the subject of numerous research. A multitude of research has been undertaken globally to compare the distinct characteristics of public and private schools. The researchers attempted to elucidate the sensation of superiority by concentrating on several performance metrics. The U.S. House of Representatives, Committee on Education and Labor, (2020), which provides the national representation of American students' knowledge across various subjects, indicates that private schools outperformed public schools in all major subject areas, including mathematics and science.

Objectives

- To investigate the disparities in Educational Stress among students across schools, colleges, and universities.
- To analyze the disparities among institutional sectors.

Hypotheses

1. There will be gender differences in educational stress among students.
2. There will be differences among students of both government and private students.
3. There will be differences among the students of schools, colleges, and universities on ESSA.

Instrument

Educational Stress Scale for Adolescents (ESSA) created by Sun, Dunne, Hou, and Xu (2010), consists of 16 items utilizing a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree), with elevated scores signifying increased stress levels. It was published in the Journal of Science, Hue University, in 2010. This novel instrument for measuring academic stress can assess the multiple aspects of educational stress, including study pressure, grade anxiety, despondency, self-expectation, and workload. The Cronbach's alpha for the complete 16-item ESSA scale was .81, signifying strong internal consistency. Five-point Likert scale comprising sixteen questions.

Sample

A sample of 300 participants has been selected from students in both private and government sectors. Students (n=150) are sourced from private educational institutions, colleges, and universities, comprising 75 females and 75 males, with an equivalent distribution from the government sector. The age range is 14 to 19 years. Data has been gathered from the regions of Wah Cantt, Rawalpindi, and Islamabad. Students from the 9th and 10th grades, intermediate college students, and first and second-semester university students are randomly selected. The purposive sampling technique has been employed.

Procedure

Adolescents were chosen from diverse institutions for the objectives of this study. Visits were made to schools, colleges, and institutions to obtain a sample size of 300. The university-issued authorization letter was utilized to contact the institutions. Pupils completed a consent form, assured of the confidentiality of their data, noting that they were informed. All students were required to complete the questionnaires and the biodata sheet in full. To safeguard the researcher's privacy, they were directed to complete the form with precise details. Blank forms were discarded.

Results

Table 1; Psychometric Properties of the Educational Stress Scale for Adolescents (ESSA) (N=300)

Variables	*M*	*S. D*	α	Range		Skewness
				Potential	Actual	
Pressure	14.95	3.42	.62	1-5	3.59- 3.97	-.53
Worry	12.03	2.74	.66	1-5	3.73-4.16	-.30
Despondency	9.30	3.21	.59	1-5	2.96- 3.37	-.16
Self-Exp	10.85	2.95	.63	1-5	3.51- 3.81	-.47
Workload	10.60	3.09	.74	1-5	3.47- 3.62	-.27
ESSA	57.74	9.73	.76	1-5	2.96- 4.16	-.23

Note: Sample Size is N= 300. ES Pressure= educational stress pressure from study, ES Worry= educational stress worry about grades, ES Despon. = educational stress despondency, ES Self Exp= educational stress self-expectations, ES Workload= educational stress workload, ES Total= educational stress total.

The reliability of the Educational Stress Scale for Adolescents and its sub-scale was measured. It ranges from 0.59 to 0.76. Despondency showed the lowest reliability of .59, pressure from the study showed a reliability of .62, and workload showed the highest reliability.

Table 2: Summary of Inter co-relation, Means, and Standard Deviation for scores on Educational Stress Scale for Adolescents (N=300)

	Variables	1	2	3	4	5	6
1	ES Pressure	-	.18**	.11**	.36**	.35**	.66**
2	ES Worry	-	-	.06	.12*	.09	.56**
3	ES Despon.	-	-	-	.19**	.17**	.49**
4	ES Self Exp.	-	-	-	-	.33**	.63**
5	ES Workload	-	-	-	-	-	.62**
6	ES Total	-	-	-	-	-	-
	Mean	14.94	13.79	9.30	10.85	10.60	59.50
	S. D	3.42	4.26	3.21	2.9	3.08	10.07

***p< 0.01, *p< 0.05*

Note: intercorrelations of Adolescents of Different Institutes (N= 300) are presented above the diagonal. Means and Standard Deviation for adolescents are presented in horizontal rows. For Scale, higher scores are indicative of more extreme responses in the direction of the construct assessed.

The result of Table 2 shows that ES and its sub-scales are positively correlated with each other (p< 0.01, p< 0.05). Pressure from the study showed a highly significant correlation with the total score of ESSA. Worrying about grades showed non-significant results with despondency and workload and significant results with self-expectations.

Table 3: Mean Differences, Standard Deviation, and t values on ESSA and its sub scales between Girls and Boys (N=300)

Subscales	Girls (n=148)		Boys (n= 152)		*t (298)*	*p*	95% CI		Cohen's *d*
	M	*SD*	*M*	*SD*			*LL*	*UL*	
Pressure	15.39	3.31	14.50	3.49	-2.26	.02	-1.6	-.12	0.26
Worry	14.29	4.09	13.31	4.37	-2.01	.04	-1.95	-.02	0.23
Despon.	9.37	2.94	9.23	3.46	-.36	.72	-.86	.59	--
Self Exp.	11.38	2.78	10.33	3.03	-3.1	.01	-1.71	-.43	0.36
Workload	10.73	3.05	10.46	3.12	-.75	.45	-.97	.43	--
ES Total	61.18	10.4	57.85	9.41	-2.9	.01	-5.59	-1.07	0.33

Note. cl= class Interval, LL= lower Limit, UL= upper Limit. ES Pressure= educational stress pressure from study, ES Worry= educational stress worry about grades, ES Despon. = educational stress despondency, ES Self Exp= educational stress self-expectations, ES Workload= educational stress workload, ES Total= educational stress total.

Results of Table 3 show that the mean difference of girls is higher on ES Total and its three subscales: ES Pressure, ES Worry, and ES Self-expectations than Boys. The difference, however, is non-significant in ES Despondency, and ES Workload. This supports hypothesis no 06 that there is a gender difference in Educational Stress among students at Schools, Colleges, and Universities. The results indicate that girls have more stress than boys. It was also indicated that females take more stress and pressure in studies as compared to males (Baluwa, et al., 2021).

Table 4: Mean Differences, Standard Deviation, and t values on ES and its sub scales between the students of Private and Government Institutes (N=300)

Subscales	Private (n= 153)		Govt. (n=147)		*t (298)*	*p*	95% C		Cohen's *d*
	M	*SD*	*M*	*SD*			*LL*	*UL*	
Pressure	14.92	3.39	14.96	3.47	-.09	.92	-.82	.74	--
Worry	14.44	4.18	13.12	4.25	2.71	.01	.36	2.28	0.31
Despondency	8.96	3.60	9.65	2.73	-1.85	.06	-1.41	.04	--
Self exp.	11.18	2.83	10.51	3.04	1.98	.04	.01	1.34	0.22
Workload	10.62	3.18	10.57	2.99	.11	.91	-.66	.74	--
ES Total	60.14	11.30	58.82	8.60	1.13	.26	-.97	3.60	--

Results of Table 4 showed that the mean score of Private institutes enrolled students are higher with an effect size of $r = 0.31$ and 0.22 on two sub scales of Educational Stress; ES Worry and ES Self expectation. However, significant results are indicated on ES Total and other sub-scales. Haris, et al., (2024) found a higher stress level in students enrolled in private institute students as compared to its counterparts.

Results of Table 5 indicate a significant mean difference was shown on ES Total and its 03 subscales: pressure, Despondency, and Self Expectation. However, there is a non-significant difference in worry and workload.

Table 5: Mean Differences, Standard Deviation, and f value of Students of schools, colleges, and universities on ES Total and its subscales (N=300)

Variables	School		College		University		*F*	*P*
	M(SD)	LL, UL	*M(SD)*	LL, UL	*M(SD)*	LL, UL		
Press	14.29(2.91)	13.72,14.86	16.07(3.25)	15.43,16.72	14.48(3.82)	13.72,15.24	8.53	.000
Worry	14.21(3.81)	13.45,14.96	14.01(4.45)	13.12,14.89	13.17(4.47)	12.28,14.06	1.68	0.18
Desp	10.36(2.95)	9.77,10.94	9.38(3.23)	8.74,10.02	8.17(3.09)	7.55,8.78	12.56	.000
Self exp	10.54(3.22)	9.91, 11.17	11.57(2.51)	11.07,12.06	10.45(2.98)	9.85,11.04	4.54	0.01
Work	10.23(2.87)	9.66,10.80	11.19(2.92)	10.61,11.77	10.38(3.38)	9.71,11.05	2.82	0.06
ES	59.63(8.81)	57.88,61.37	62.22(9.23)	60.38,64.05	56.65(11.31)	54.40,58.89	8.01	.000

****p<.000, **p<0.01*

Note: Between Group df=02; Within Group df=297; Groups Total df= 299. ES Pressure= educational stress pressure from study, ES Worry= educational stress worry about grades, ES Despon. = educational stress despondency, ES Self Exp= educational stress self-expectations, ES Workload= educational stress workload, ES Total= educational stress total.

Table 6: Tukey's Honestly Significant Difference (HSD) Test on ES Total and its subscales (N=300)

Subscales	I (Group)	J (Group)	Mean Diff I-J	St. Error	*p*	95%CI LL	95%CI UL
Pres.	College	School	1.78	.47	.001***	-2.90	0.66
		University	1.59	.47	.003*	.47	2.70
Desp	University	School	-2.20	.44	.000***	-3.22	-1.15
		College	-1.21	.44	.01**	-2.24	-.17
Self Exp	College	School	1.03	.41	.03*	.05	2.00
		University	1.12	.41	.01**	.14	2.09
EST	College	University	5.57	1.39	.000***	2.28	8.85

****p<0.001, **p<0.01, *p<0.05*

Note: CI= Class Interval, LL= Lower Limit, UL= Upper limit, Pres= Educational stress pressure from studies, Desp= Despondency, Self ex= Self Expectations, EST= Educational Stress Scale Total.

The above table indicates the significant mean difference between schools, colleges, and university-level students on the Educational Stress scale total and three sub-scales. Rehmani, Khan & Fatima (2018) indicate that academic pressure is a source of stress for many college students. Riley, Collins, and Collins (2019) found that students at the college level may face many challenges that continuously pressure them for good performance. He also found that university students face difficulty in time management, a lack of training in task completion, and responsibility that causes stress to them. The literature argues that academic stress arises from expectations that lead to stress. It was also narrated that college-level students feel more academic stress as compared to others (Admi, Eilon, Sharon, & Mann, 2018).

Discussion

Academic success, often measured by scores, is the most critical and troubling criterion among students. Educational stress is a prevalent phenomenon encountered by pupils. Achieving and sustaining a high GPA ostensibly guarantees a more favorable future for students, hence contributing to their sources of stress. A demonstration of the alpha reliability of the Educational Stress Scale for Adolescents is presented in Table 1. Furthermore, the Educational Stress Scale for

Adolescents exhibits a substantial inter-item correlation ($p< 0.01$, $p< 0.05$), as demonstrated in Table 2. The range of the scale is from .59 to .76.

On the Educational Stress Scale for Adolescents and its three subscales—pressure from study, stress about grades and self-expectation—the findings presented in Table 3 demonstrated a substantial gender difference. Despondency and workload, on the other hand, produce results that are not statistically significant. After conducting a study to determine the differences between students, a study discovered that students at the undergraduate level experience a greater degree of academic pressure. Rafati, and colleagues (2017) found that females experience higher levels of academic stress and anxiety than boys do. This finding is consistent with the data that was presented earlier.

Table 4 demonstrates that students from the commercial sector scored significantly higher on two subscales of the Educational Stress Scale for Adolescents than students from the government sector did. This is in comparison to the results of the study. On the other hand, the results on the other three subscales, in addition to the total scores on ESSA, are not statistically significant. A study investigated the amount of academic stress and general adjustment among high school students attending public and government schools (Sultan, et al., 2022). Additionally, the researchers investigated the association between academic stress and adjustment. The magnitude of the academic stress experienced by pupils attending public schools was shown to be much higher, according to the findings. According to the findings of the research, children attending private schools are more likely to experience stress related to their academic performance than those attending public schools (Jameson, 2014).

According to the findings presented in Table 5, students at the college level are more likely to have high scores on Educational Stress and its subscales, which include pressure from studies and self-expectation, in comparison to students at the school and college levels. Research conducted by Shaban and co-researchers (2015) found that one of the most significant sources of stress for college students was the amount of work they had to produce. The researchers discovered that academic pressure, workload, and other factors that cause stress were present (Edwards, et al., 2015; Fatima, et al., 2022).

Limitations of the Study

- The study may encompass only a finite number of students from designated institutes, thereby lacking representation of the overall student demographic throughout Pakistan.
- The research depends on students' self-reported experiences, which may be influenced by biases such as social desirability or recall inaccuracies.
- Elements such as familial context, individual resilience, and coping strategies may affect stress levels but may not be comprehensively addressed in the study.
- Disparities in curriculum, regulations, and support systems among various schools may influence teenagers' stress levels, complicating generalizations.

Suggestions for Future Research

- Subsequent study ought to encompass a larger and more heterogeneous sample, incorporating students from diverse geographical regions, socio-economic strata, and academic fields.

- A comparative examination with kids from various nations helps elucidate how educational and cultural disparities affect stressors.
- Future research can explore the coping mechanisms employed by students and their efficacy in alleviating academic stress.
- Incorporating viewpoints from parents and educators can yield a more comprehensive picture of the issues contributing to student stress.
- Research should concentrate on the efficacy of stress management programs, mindfulness training, and counseling services in alleviating stress among students.

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