EXAMINATION STRESS, SELF-ESTEEM AND PSYCHOLOGICAL ADJUSTMENT IN UNIVERSITY STUDENTS

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University provides great learning experiences and opportunities for students; however, it can also be a source of strain when students face academic-related stressors. The present study examined the relationship between examination stress, self-esteem and psychological adjustment among the university students of arts and science. The sample comprised 200 undergraduate and graduate students. The sample was drawn through non-probability convenience sampling and the study used a cross-sectional research design. To measure research variables, self-esteem scale (Riffai & Tariq, 1999), examination stress scale (Riffai & Mughal, 1991) and psychological adjustment scale (Haber & Runyo, 1984) were administered. Results showed that examination stress was negatively related to self-esteem and psychological adjustment. It was found that arts students experienced more examination stress as compared to science students. The study highlights that the workload on students must be minimized in order to avoid examination stress which in turn, causes low academic grades and performance.

Keywords: examination stress, psychological adjustment, self-esteem, university students

Examination stress is a common form of academic stress that occurs when a student faces a discrepancy between actual and perceived coping ability while meeting the demands of exams (Xiang et al., 2019). Examination time is an important time in which most of the students face stress as they attempt to compile months/years of work and try to study it in several hours. While preparing for exams, students often feel under pressure and consequently, this pressure causes the feeling of emotional arousal, anxiety, nervousness and also physiological symptoms (Guo et al., 2022). If continued over a long period of time, examination stress can lead to psychological disorders such as sleep disorders, depressive disorders and eating disorders (Ejaz et al., 2021; Hamilton et al., 2021). McDonald (2001) reported that almost 10-40% of all the students face examination stress and this percentage increases in formal examinations. In terms of gender differences, studies have shown that girls experience more examination stress as compared to boys (Eman et al., 2012). Over the years, research has highlighted several factors that can cause and maintain examination stress in university students. In this regard, tests and assessments are one of the most critical stressor in a student's life (Jindal-Snape & Miller, 2008). The increasing number of tests over time and how they are linked with important educational and career-related decisions is an important cause of examination stress (Sena et al., 2007). Parental and teachers' expectations are also important factors in examination stress as students do not want to let down anyone with their performance (Malik, 2015; Zhang et al., 2020).

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Furthermore, students are also frequently unsure of their competencies to fulfill the demands of exams. When students feel that they have not appropriately covered the syllabus, nervousness and anxiety can occur as they're going to enter the examination area (Dwyer & Cummings, 2001). A study conducted in Pakistan showed that family expectations, inability to manage time, improper study habits, competition, improper teaching methods, and financial issues are the major causes of exam stress in university students (Malik, 2015).

Examination stress is negatively associated with self-esteem and psychological well-being of university students (Akinsola et al., 2013; Xiang et al., 2019). An individual's self-esteem is an important factor that is defined as how people view themselves. In the context of examination stress, students with low self-esteem are generally more vulnerable to stress as they see themselves as being unable to cope with the demands of exams. In the same way, students who experience more examination stress have low self-esteem as they are unable to cope with the perceived stress (Taylor & Shanton, 2007; Xiang et al., 2019). Psychological adjustment is also an integral part of university life. Generally, university requires many transitions and adjustments to new environments, needs, and people which may become a source of stress. Students often report loneliness, homesickness, and issues in interpersonal relationships (American College Health Association, 2011; Dusselier, 2005). Studies have mentioned that these changes may have an effect on students' overall health, resulting in sadness, anxiety, low self-esteem, and other psychological issues (Liu et al., 2016; Sullivan & Kashubeck-West, 2015).

In this context, it is important to work on the examination stress in university life to improve the student's self-esteem and also the overall psychological adjustment of the students. Teaching students' psychosocial adjustment and stress management skills can assist them in dealing with the stresses they usually face in university, as well as, in later life. Research indicates that college students who learn skills to manage their psychosocial stressors are better able to manage examination stress (Dwyer & Cummings, 2001; Kerr et al., 2004; Paul & Brier, 2001). In the context of highlighting the importance of academic pressure on students and its cost to their self-esteem, this research is primarily concerned with examination stress and how it is associated with self-esteem and psychological adjustment. Given the limited number of studies conducted on examination stress in arts and science disciplines, this research addresses a gap in literature regarding examination stress and how it is associated with self-esteem and psychological adjustment of students studying in the fields of Arts and Science.

Hypotheses
- Examination stress is likely to be negatively correlated with self-esteem and psychological adjustment in students of arts and science.
- Girls would show more examination stress, self-esteem and psychological adjustment as compared to boys.
- Examination stress and psychological adjustment would be higher in the students of arts as compared to students of science.

Figure 1

Proposed Model of the Study
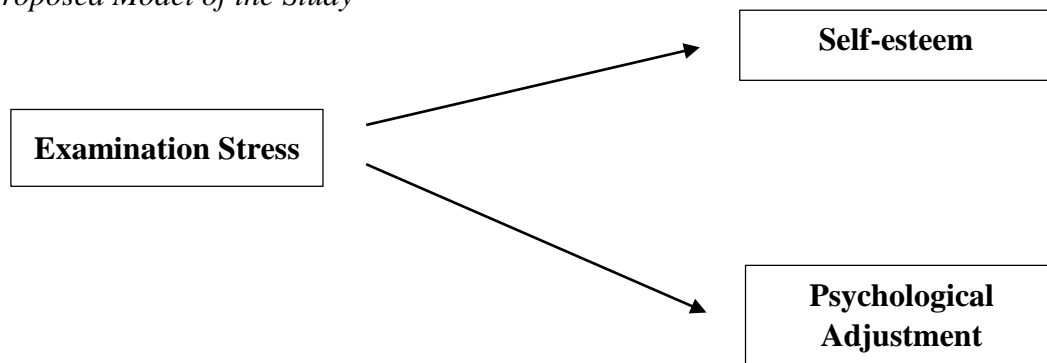
Method

Research Design

      The study is quantitative in nature and used the cross-sectional research design.

Sample and Sampling Strategy

      The sample of the research consisted of university students, including both boys and girls from The Islamia University of Bahawalpur (IUB). There were total 200 participants in the study. The sample was drawn with the help of non-probability convenience sampling technique. Different departments and faculties (Faculty of Arts and Faculty of Science) were selected to recruit the sample.

Table 1

Frequency Distribution of Respondent's Demographic Information

Demographics	*n*	*%*
Age (Years)		
17-20	89	44.5
21-23	91	45.5
23-25	20	10.0
Gender		
Boys	81	41.0
Girls	117	59.0
Education		
BS	150	75.0
MA/MSC	38	19.0
MPhil	12	6.0
Marital Status		
Married	25	12.5
Unmarried	175	87.5
Family System		
Joined	64	32.0

Nuclear	136	68.0
Faculty		
Faculty of Arts	96	48.0
Faculty of Science	104	52.0
Semester		
First	19	9.5
Second	46	23.0
Third	37	18.5
Fourth	27	13.5
Fifth	32	16.0
Sixth	1	0.5
Eight	38	19.0
Father Education		
Literate	180	90.0
Illiterate	20	10.0
Father Profession		
Working	179	89.5
Non-working	21	10.5
Mother Education		
Literate	171	89.5
Illiterate	29	10.5
Mother Profession		
Working	41	20.5
Housewife	159	79.5
Residential Area		
Urban	160	80.0
Rural	40	20.0

Table 1 shows the demographic characteristics of the sample. Frequency distribution showed that 44.5% of the respondents belonged to age range 17- 20 years whereas 45.5% were of 21-23 years and 10% of the respondents belonged to age range 23-25. 41% respondents were boys while 59% were girls. Frequency distribution showed that 75.0 % of the respondents were with educational level of BS, 19% of the respondents were with educational level of MA/MSc and 6% of MPhil respectively.

Assessment Measures

Demographic Sheet

A demographic sheet was constructed by the researcher. It included basic demographic information. Through demographic sheet, the personal information of the participants was taken including age, gender, education, semester, department, marital status, father' education and occupation, mother's education and occupation, residence, and economic status.

Self Esteem Scale (Riffai & Tariq, 1999)

This scale consists of 29 items and four subscales. This scale measures an individual's self-esteem along with its four dimensions, including self-acceptance, self-competence, academic self-competence and social & physical self-acceptance. A scale with five response options was given with each statement ranging from "extremely true" to "extremely false". The alpha reliability of the overall scale was .83 (Riffai & Tariq, 1999).

Examination Stress Scale (Rifai & Mughal, 1991)

This scale is an indigenously developed scale and it has 36 items that are used to measure test anxiety and exam-related stress in adolescents and adults. The possible score range is 36-144. Higher scores indicated more test anxiety and low scores indicate lesser stress due to exams. The Cronbach's Alpha reliability was .95.

Psychological Adjustment Scale (Sabir, 1999)

It is a 27-item scale that was used to measure the psychological adjustment among students of arts and science. The psychological adjustment scale was developed on the theoretical framework given by Haber and Runyo (1984) and it describes psychological adjustment with five domains such as perception of reality, coping, self-image, emotional expression and interpersonal relationships. Higher scores on the scale indicate better psychological adjustment. The scale has high Cronbach alpha reliability of .83.

Procedure

The study was conducted after taking prior permission from the authors. After permissions, the data was collected from the target and desired sample (*N*=200). Participants of the study were selected using non-probability convenient sampling. In this study, all the reliable and standardized instruments were used and cross-sectional study method was used. For collecting data from the university students, different faculties and Departments of IUB, were briefed about the purpose of study. After that informed consent was taken from the university students. Then they were asked to fill in the demographic sheet and questionnaire and ethical considerations were followed.

Ethical Considerations

- Informed consent form was developed to explain the nature, purpose and ethical considerations of the research. It was obtained in written form.
- Participants were informed that their participation is voluntary

Results

The following sections describes the analysis used to understand the relationships between examination stress, self-esteem and psychological adjustment among university students.

Table 2

Descriptive Statistics and Correlations for Examination Stress, Self-Esteem and Psychological Students

Variables	M	SD	1	2	3
1.Examination Stress	87.58	10.13	-		
2.Self-Esteem	78.34	15.23	-.08	-	
3.Psychological Adjustment	79.07	11.26	-.37***	.06	-

***p<.001

The table shows that examination stress was negatively related to psychological adjustment. It showed that students who were experiencing more examination stress had low levels of psychological adjustment.

Table 3

Independent Sample t-test Showing Gender Differences in Examination Stress, Self-Esteem and Psychological Adjustment

Variables	Boys		Girls		$t(198)$	p	Cohen's d
	M	SD	M	SD			
Examination Stress	73.23	13.39	81.44	15.19	-3.92	.000	.57
Self-Esteem	76.83	11.96	80.58	10.61	-2.33	.021	.33
Psychological Adjustment	87.44	9.84	87.88	10.34	-.30	.766	.04

Note. Boys (*n*=81), Girls (*n* =117)

Table shows that there are significant gender differences in examination stress and self-esteem. Girls showed higher level of self-esteem (*M*=80.58; *SD*= 10.61) as compared to boys (*M*=76.83; *SD*= 10.61). Furthermore, girls (*M*=81.44; *SD*= 15.19) showed more examination stress as compared to boys (*M*=73.23; *SD*= 13.39).

Table 4

Independent Sample t-test Showing Gender Differences in Examination Stress, Self-Esteem and Psychological Adjustment

Variables	Boys		Girls		$t(198)$	p	Cohen's d
	M	SD	M	SD			
Examination Stress	79.31	14.21	77.45	16.15	.86	.390	.12
Self-Esteem	79.20	12.23	78.85	10.34	.15	.878	.03
Psychological Adjustment	87.71	10.43	87.46	9.89	.18	.858	.02

Note. Art Students (*n*=96), Science Students (*n* =104)

Table shows that there are no significant differences among students of arts and science in the level of psychological adjustment, self-esteem and examination stress.

Discussion

The following section discusses the findings of the current research. The first hypothesis that examination stress is negatively related to self-esteem and psychological adjustment amongst the students of arts and sciences was checked and the present study demonstrated a negative relationship between examination stress and psychological adjustment. Previously, a research by Kumari and Jain (2014) showed a significant positive correlation between examination stress and anxiety in college student belonging to faculties of commerce, science and arts. Another study investigated stress and psychosocial adjustment in undergraduate students of government sector universities and reported a negative relationship between them. Results showed that most of the students experienced moderate to high levels of stress while just over a third of the sample reported low stress levels (Oketch-Oboth, & Okunya, 2018). However, another research showed insignificant relationship of stress with self-esteem in the students of arts and science (Farhan & Khan, 2015).

Another hypothesis stated that self-esteem would be higher among girls than boys. The current study found that self-esteem was higher in girls as compared to boys. However, a research cross-culturally studied gender and age differences in self-esteem and found that boys consistently report higher self-esteem than girls (Belidorn, et al., 2016). In this context, Frost and McKelvie (2004) reported that gender differences in self-esteem vary with age and girls mostly show high self-esteem in adolescence and young adulthood. The present study also reported significant gender differences in examination stress with girls reporting higher level of examination stress. These results can be supported by previous research as Eman et al. (2012) also showed that girls reports high level of test anxiety as compared to boys.

In the current study, next hypothesis stated that psychological adjustment would be higher among students of arts as compared to the students of science. The present study reported no significant differences in psychological adjustment between the students of arts and science. Pandit (2021) also studied the differences in psychological adjustment in arts, commerce and science students and did not report any significant differences. Fateel (2019) also reported insignificant relationships and indicated that 15 % of the study participants reported high levels of psychological adjustment, while 51 % of the total sample reported average levels of psychological adjustment. Serebryakova et al. (2016) also reported that a low level of psychological adjustment irrespective of the faculty in the first-year university students. Another hypothesis was that there would be differences in examination stress and psychological adjustment among students of arts and science. Although, the research showed a higher level for examination stress in students of arts as compared to students of science but the results were insignificant. Previous research reports varied results. On comparing the stress and anxiety among students of different subjects, the students of arts were found having highest stress and anxiety during exams followed by commerce students (Kumari & Jain, 2014). On the other hand, Sharma et al. (2021) also compared stress among the students of science and arts and reported that science students report higher level of stress as students studying in arts.

Conclusions

Examination stress was negatively related to psychological adjustment in students, indicating the higher levels of examination stress are related to low levels of adjustment. Girls showed higher self-esteem and examination stress as compared to boys. Lastly, there were no significant differences in terms of examination stress, self-esteem and psychological adjustment between the students of arts and science.

Implications

This research draw attention towards the issue of examination stress and how they are related with cognitive factors such as self-esteem. This study could prove helpful for students and teachers at academic level in identifying and managing examination stress. It can be also used to bring awareness in community regarding examination stress and its consequences in university students. This study highlights the need to explore and design special programs that can be used in educational sector in order to help students in coping with their exam-related stress.

References

Akinsola, E. F., & Nwajei, A. D. (2013). Test anxiety, depression and academic performance: Assessment and management using relaxation and cognitive restructuring techniques. *Psychology, 4*(6), 18–24. https://doi.org/10.4236/psych.2013.46A1003

American College Health Association. (2011). *American college health association-national college health assessment spring 2008 reference group data report.* American College Health Association.

Dusselier, L., Dunn, B., Wang, Y., Shelley, M. C. II, & Whalen, D. F. (2005). Personal, health, academic, and environmental predictors of stress for residence hall students. *Journal of American College Health, 54*(1), 15–24. https://doi.org/10.3200/JACH.54.1.15-24

Dwyer, A. L. & Cummings, A. L. (2001). Stress, self-efficacy, social support, and coping strategies in university students. *Canadian Journal of Counselling, 35*(3), 208-220.

Ejaz, B., Kosar, N., & Muazzam, A. (2021). Test anxiety, sleep quality and eating habits among university students. *Orient Research Journal of Social Sciences, 6*(1), 208-220

Eman, S., Dogar, I. A., Khalid, M., & Haider, N. (2012). Gender differences in test anxiety and examination stress. *Journal of Pakistan Psychiatric Society, 9*(2), 80-85

Farhan, S., & Khan, I. (2015). Impact of stress, self-esteem and gender factor on students' academic achievement. *International Journal on New Trends in Education and their Implications, 6*(2), 143-156

Fateel, M. J. (2019). The impact of psychological adjustment on private university students' academic achievement: Case Study. *International Journal of Higher Education*, *8*(6), 184-191. https://doi.org/10.5430/ijhe.v8n6p184

Frost, J., & McKelvie, S. (2004). Self-esteem and body satisfaction in male and female elementary school, high school, and university students. *Sex Roles, 51,* 45-54. https://doi.org/10.1023/B:SERS.0000032308.90104.c6

Guo, X., Guo, L., He, S., Liu, C., & Luo, L. (2020). Mothers' filial piety and children's academic achievement: the indirect effect via mother-child discrepancy in perceived parental expectations. *Educational Psychology, 40,* 1230–1248. https://doi.org/10.1080/01443410.2020.1749235

Hamilton, N., Freche, R., Zhang, Y., Zeller, G., & Carroll, I. (2021). Test anxiety and poor sleep: A vicious cycle. *International Journal of Behavioral Medicine, 28*(2), 250–258. https://doi.org/10.1007/s12529-021-09973-1

Jindal-Snape, D. & Miller, D.J. (2008). Challenge of living? Understanding the psycho-social processes of the child during primary-secondary transition through resilience and self-esteem theories. *Educational Psychology Review, 20,* 217–236. https://doi.org/10.1007/s10648-008-9074-7

Kerr, S., Johnson, V. K., Gans, S. E., & Krumrine, J. (2004). Predicting adjustment during the transition to college: Alexithymia, perceived stress, and psychological symptoms. *Journal of College Student Development, 45,* 593-611. https://doi.org/10.1353/csd.2004.0068

Kumari, A., & Jain, J. (2014). Examination stress and anxiety: A study of college students. *Global Journal of Multidisciplinary Studies, 4*(1), 31-40.

Liu, Y., Chen, X., Li, S., Yu, B., Wang, Y., & Yan, H. (2016). Path analysis of acculturative stress components and their relationship with depression among international students in China. *Stress and Health, 32*(5), 524-532. https://doi.org/10.1002/smi.2658.

Malik, S. (2015). Assessing Level and Causes of Exam Stress among University Students in Pakistan. Mediterranean Journal of Social Sciences, 6(4), 11. https://doi.org/10.5901/mjss.2015.v6n4s1p11

Mcdonald, S. A. (2001). The prevalence and effect of test anxiety in school children. *An International Journal of Experimental Educational Psychology, 21*(1), 89-101

Oketch-Oboth, J.W., & Okunya, L.O. (2018). The relationship between levels of stress and academic performance among university of Nairobi students. *International Journal of Learning and Development. 8*(4), 1-28. https://doi.org/10.5296/ijld.v8i4.13840

Pandit, A. P. (2021). A study of adjustment among arts, commerce and science faculty students. *International Journal for Technological Research in Engineering, 8*(5), 183-187

Paul, E. L., & Brier, S. (2001). Friendsickness in the transition to college: precollege predictors and college adjustment correlates. *Journal of Counseling & Development, 79*(1), 77–89. https://doi.org/10.1002/j.1556-6676.2001.tb01946.x

Riffai, F. Y (1991). *Development of examination stress scale of university students.* [Unpublished MPhil Dissertation]. Quaid-e-Azam University

Riffai, F. Y., & Tariq, M. (1999). *Development and validation of self-esteem scale* [Unpublished Doctoral Dissertation]. Quaid-i-Azam University

Sabir, F. (1999). *Academic self-concept and achievement among university students as related to their psychological adjustment* [Unpublished MPhil Dissertation]. Quaid-i-Azam University

Sena, W. J. D., Lowe, A. P., & Lee, W.S. (2007). Significant predictors of test anxiety among students with and without learning disabilities. *Journal of Learning Disabilities, 40*(4), 360-376. https://doi.org/10.1177/00222194070400040601.

Serebryakova, T., Morozova, L., Kochneva E., Zharova, D., Skitnevskaya L. & Kostina, O. (2016). The problem of socio-psychological adjustment personality in the scientists' studies. *International Journal of Environmental & Science Education, 11*(11), 4706-4715.

Sharma, S., Chamola, B. P., & Pandey, N. (2021). Comparative study of stress among students of different streams science and arts. *International Journal of English Literature and Social Sciences, 6*(3) 298-308. https://doi.org/10.22161/ijels.63.41

Sullivan, C., & Kashubeck-West, S. (2015). The interplay of international students' acculturative stress, social support, and acculturation modes. *Journal of International Students, 5*(1), 1-11. https://doi.org/10.32674/jis.v5i1.438

Taylor, S. E., & Stanton, A. L. (2007). Coping resources, coping processes, and mental health. *Annual Review of Clinical Psychology, 3,* 377–401. https://doi.org/10.1146/annurev.clinpsy.3.022806.091520.

Xiang, Z., Tan, S., Kang, Q., Zhang, B., & Zhu, L. (2019). Longitudinal effects of examination stress on psychological well-being and a possible mediating role of self-esteem in Chinese high school students. *Journal of Happiness Studies, 20,* 283–305. https://doi.org/10.1007/s10902-017-9948-9

Zhang, W. J., Yan, C., Shum, D., & Deng, C. P. (2020). Responses to academic stress mediate the association between sleep difficulties and depressive/anxiety symptoms in Chinese adolescents. *Journal of Affective Disorders, 263*, 89–98. http://doi.org/10.1016/j.jad.2019.11.157