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EFFECT OF ADVERSITY QUOTIENT ON STUDENTS' ACADEMIC PERFORMANCE IN PUBLIC AND PRIVATE UNIVERSITIES

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Abstract

The current study aimed at assessing how Adversity Quotient (AQ) affects the academic performance of students among university students in both public and private universities. AQ is the capability of an individual to handle stressors, surmount hardships and convert hardships into opportunities. The quantitative research design used was causal-comparative and data was gathered using a random sampling technique on a sample of 400 students selected in two public universities and two private universities in Lahore. The measures of AQ and academic performance were measured using standardized questionnaires and the data were analyzed using both descriptive statistics and inferential statistics in SPSS. The results indicated a huge difference in academic performance at different levels of AQ, meaning that students with higher levels of AQ had better academic performance. According to AQ or academic performance, there were no significant gender differences. Likewise, there was no meaningful difference between the students at public university and the students at the private university or even among the institutions. Nevertheless, there was a great discrepancy between urban and rural students with the urban students doing well. The difference in academic performance across academic programs also exhibited significant differences whereas there was no significant difference in transportation method. Parental education, especially the level of mother education, had a significant direct effect on the academic performance but family income did not have any direct effects. The research finds that AQ is a significant indicator of academic performance and has a crucial role in student success. The findings point to the need to come up with resilience-building interventions in learning institutions to improve academic results and promote student success.

Key Words: Adversity Quotient, Academic Performance, University Students, Public Universities, Private Universities.

Introduction

The life in the modern world is more and more complicated, which is marked by rapid development, stiff rivalry, and constant challenges in all spheres (Zaidi & Sultana, 2023; Imran, 2022). University students are especially susceptible to a large number of stress factors in this dynamic environment such as academic stress, monetary constraints, family duties, and social pressures. Such complications can greatly affect the performance of students and their interest to continue studying (Rangriz & Khaksar, 2018). Therefore, the psychological aspects that allow students to cope with such unfortunate events effectively have become a key research topic in higher education.

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One more is Adversity Quotient (AQ) the ability of a person to deal with challenges and transform the problems into opportunities (Verma et al., 2018; Stoltz, 2000). AQ is emerging as a recognized critical determinant on the path that people use to cope with setbacks, endure hardships and achieve the long-term goals (Oad, et al., 2024; Azhar & Imran, 2024; Imran & Akhtar, 2023). In education, students who have higher AQ are more resilient; they have more perseverance and are better at problem solving. These qualities assist them in successfully coping with academic stressors such as challenging coursework, competition and stress-inducing academic performance which later results in improved academic performance (Maddi et al., 2013).

Academic performance is one of the most significant predictors of student achievement in higher education, which is generally measured using such indicators as grades, scoring in exams, and overall academic performance (York et al., 2015). Once again, it has been clearly demonstrated that such students who possess a greater level of resilience and coping ability are able to achieve better academic performance (Imran, Akhtar, & Khan, 2026; Zaidi, et al., 2024). In particular, students who have a higher AQ tend to continue to work under the pressure of academic problems, maintain consistent performance and use effective learning strategies, which in turn leads to higher levels of academic achievement (Ramos-Diaz et al., 2018; Moe et al., 2019). On the other hand, low AQ students in most instances struggle to cope with academic pressure and this factor may lead to disengagement, avoidance of challenges and eventually worse academic performance (Riipa, et al., 2026; Hossain, et al., 2025).

The existence of a university is extremely difficult and requires flexibility and long-term employment. Difficult course work, institutional support and expectations are some of the common challenges among students (Phulpoto, Oad, & Imran, 2024; Oad, Zaidi, & Phulpoto, 2023). Those with good adversity-handling skills are in a better position to be committed to their academic goals, display persistence and accommodate new demands of academic pursuits. The reason is that they are always able to view the challenge as a temporary thing that can be managed and hence more likely to go on to achieve success and, in the process, learn more and achieve academically in the long run. Low AQ students on the other hand can get frustrated, develop negative attitudes towards their academic work and avoid challenging circumstances and limit their academic capabilities.

Various theoretical perspectives also endorse the relationship between AQ and academic performance. These theories are goal achievement theory (Covington, 1984) which is a theory that suggests that perceptions of success and failure influence the manner in which students become motivated towards achievement and that control-value theory (Pekrun, 2006) posits that it is perceived control and emotional response that contributes to academic success. These models are indicative of the fact that students who believe that a challenge can be overcome and that they can have an impact on the outcome are more likely to be academically successful. In this respect, AQ plays an important role in the manner in which students look at a scenario of adversity and how they respond to challenges in academics.

Empirical studies provide excellent supportive data to the purpose of AQ in schools. Studies have demonstrated that high AQ is related to better performance in examinations, increased academic performance, study persistence, and better university life adaptation (Datu & Valdez, 2019; Jdaitawi, 2019; Ogundokun & Adeyemo, 2010). Moreover, AQ has been

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demonstrated to influence the process of making academic decisions by students. High AQ students are more apt to make thought-provoking and strategic choices about their studies and stay engaged in challenging courses and persist despite setbacks. On the contrary, low AQ students will tend to make impulsive decisions, such as dropping challenging classes or dropping out of school.

Both direct and indirect impacts of AQ on academic performance also exist. It directly results in increased persistence, flexibility and problem-solving capabilities in students in case of academic difficulties. It has an indirect effect on motivational factors, including engagement, learning strategies, and academic commitment, which, in turn, have a positive impact on better performance (Singh & Bhargava, 2022). This twofold impact highlights the complex nature of the role of AQ in determining the academic experiences and performance of students.

Besides the personal factors, institutional context is also a major factor that determines the level of academic performance. The differences between universities are in terms of resources, academic support systems, governance and learning environments. Specifically, universities (both public and private) might have a different degree of academic support, infrastructure, and the availability of opportunities to engage with the students (Ekpoh & Ezeah, 2020; Shah et al., 2017). These differences can be realized in the effectiveness with which students are able to employ their resilience and coping skills in order to succeed in their studies. However, fewer studies have had a relative examination of the importance of AQ in different institutions.

Moreover, the academic performance of students can be impeded by a number of external factors, such as poverty, inaccessibility of academic resources, and academic failure (Imran, Akhtar, & Khan, 2026; Haider, et al., 2025). The challenges could lead to burnouts, demotivate, and uninterested in academic activities. However, the research shows that it is possible to implement specific interventions that can help students to overcome adversity and improve their academic performance, such as mentoring programs, academic support services and resilience-building initiatives. Such interventions aimed at strengthening the AQ of students may therefore be a useful approach towards fostering academic success.

Although the body of literature on the significance of AQ in academic performance is growing, it is evident that there are gaps in the literature (Imran, Khan, & Rani, 2025; Imran, Sultana, & Jat, 2023). Most of the research that is presently being conducted is conducted in international contexts with little emphasis being made on developing countries where students are likely to have more complex socioeconomic and educational problems. Also, most of the studies have compared AQ with a variety of psychological constructs, which have not given much information on the direct impact of AQ on academic performance. Comparative research that examines the effect of AQ on academic performance in various institutional settings, especially between public and private universities is also lacking.

Against these gaps, a desperate necessity to carry out specific research to investigate the role of AQ as a key predictor of academic performance in diverse educational settings. Thus, the proposed research will focus on exploring the impact of adversity quotient on academic achievement of students at public and private universities. In this way it aims to make contributions to a better understanding of how resilience empowers students to triumph over academic obstacles and succeed despite among different contextual constraints.

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Objectives of the study

The study was conducted to achieve the following objectives:

1-To assess the AQ of University students.

2-To examine how Adverse Quotient affects performance of the student at the university level.

Research Questions

The research questions of the study were:

1. What is adversity quotient of university students?
2. Is there a significant difference between adversity quotient among the students of the public and private universities?
3. How does the academic performance of university students relate to their adversity quotient?
4. How does adversity quotient impact on academic performance among students?

METHODOLOGY

The purpose of the ongoing study is to find out the effect of the adversity quotient on student's performance in a private and public university.

Research Design

This research was done to investigate the impact of effect of adversity quotient on the performance of the students studying in public and in private universities. This study used Causal comparative quantitative research design.

Population of the Study

All the students studying in the universities of Lahore were the population of this study.

Sample of the Study

The data collection was done using random sampling technique. 400 students werw selected. 200 students from 2 Public universities and 200 students from 2 Private universities at Lahore.

Instrument

The tool used in the present study was an adopted questionnaire. This study on the micro level was preceded by a pilot study. The pilot testing scores delivered by the data on 100 subjects demonstrated a statistically significant value of Cronbach's Alpha of .88. A questionnaire adopted by Heliyon, (2021), was used to measure AQ (25 statements). An adopted questionnaire by Emily Grattan et Al., (2015) was used for academic performance (8 statements).

Data Analysis

The chapter introduces the data analysis and interpretation based on descriptive and inferential statistics in SPSS. The normality of data was verified before analysis. The research investigated the impact of Adversity Quotient (AQ) on academic performance of students.

Table 1: *One-way ANOVA for Mean difference between High, Medium, Low Adversity Quotient and the Performance of the students.*

Adversity Quotient/Performance	Sum of Squares	*df.*	Mean Square	*F*	Sig.
Between Groups	6819.12	2	3409.56	78.67	.000
Within Groups	17199.67	397	43.33		
Total	24018.78	399			

In Table 1, ANOVA showed that there were significant differences in academic performance between the high, medium and low adversity quotient groups ($p < .000$) and that the higher the adversity quotient, the better the academic performance.

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Table 2: *Independent sample T-test for mean difference for the responses of Male and Female on the basis of Adversity Quotient*

Gender	N	Mean	*SD*	*df.*	*t*-value	Sig.
Female	297	109.93	16.85	398	-.03	.979
Male	103	109.87	22.17			

Table 2 shows the results of an independent sample T-test comparing adversity quotient between males (M = 109.87, SD = 22.17, N = 103) and females (M = 109.93, SD = 16.85, N = 297). The results indicate no significant difference between genders (t = -0.03, df = 398, p = .979), suggesting that male and female students have comparable levels of resilience.

Table 3: *Independent sample T-test for Mean difference for the responses of Male and Female on the basis of performance*

	Gender	N	Mean	*SD*	*df.*	*t*-value	Sig.
	Male	103	38.99	7.97	398	-.52	.604
Total	Female	297	39.45	7.69			

Table 3 shows the results of an independent samples t-test comparing academic performance between males (M = 38.99, SD = 7.97, n = 103) and females (M = 39.40, SD = 7.69, n = 297). The results show no significant gender difference (t = -0.52, df = 398, p = .604) meaning there is no evidence of a gender gap in achievement and that academic performance is the same for boys and girls.

Table 4: *Independent sampleT-test for Mean difference of the responses of the respondents based on area (Rural/Urban) for the items Performance*

Area	N	Mean	*SD*	*df.*	*t-value*	Sig.
Rural	291	38.77	8.40	395	-2.39	.017
Urban	106	40.86	5.42			

Table 4 presents an independent samples t-test comparing academic performance between rural (M = 38.77, SD = 8.40, n = 291) and urban students (M = 40.86, SD = 5.42, n = 106). The results indicate a significant difference between the groups (t = -2.39, df = 395, p = .017), showing that urban students have significantly higher academic performance than rural students.

Table 5: *One-way ANOVA for Mean difference between the Responses of Respondents about Performance and Institute of the students*

Performance/Institute	Sum of Squares	*df.*	Mean Square	*F*	Sig.
Between Groups	181.55	3	60.52	1.03	.382
Within Groups	23337.25	395	59.08		
Total	23518.79	398			

Table 5 shows a one-way ANOVA that is used to analyze academic performance on the basis of various institutes. The findings revealed that there are no significant differences in

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academic performance between institutes (F = 1.03, p = .382), and that institutional affiliation is not significant in influencing the level of achievement of students.

Table 6: *Independent sample t-test for Mean difference for the responses of respondents on the basis of university sector about Performance*

Sector	N	Mean	*SD*	*df.*	*t-value*	Sig.
Private	200	38.95	7.72	.325	.99	.325
Public	200	37.28	7.99			

Table 6 presents an independent samples t-test comparing academic performance between private (M = 38.95, SD = 7.72, n = 200) and public university students (M = 37.28, SD = 7.99, n = 200). The results show no significant difference between the groups (t = 0.986, df = 398, p = .325), indicating that academic performance is statistically similar in private and public university students.

Table 7: *One-way ANOVA for Mean difference between the Responses of Respondents about Performance of the students at institute.*

Program/Performance	Sum of Squares	*df.*	Mean Square	*F*	Sig.
Between Groups	1971.42	3	657.142	11.80	.000
Within Groups	22047.35	396	55.675		
Total	24018.78	399			

The mean difference independent sample t-test results for the respondents' responses based on the university sector with respect to Performance are presented. The data was analyzed by using one-way ANOVA for mean difference between the Responses of Respondents about the Performance and Program of the students. A significant difference between the academic performance of students in the different academic programs was observed, which is shown in table 7 (F = 11.80, p< .001), meaning that there are statistically significant differences between the academic performance of students at one academic program and another, some programs being associated with better academic performance than others.

Post Hoc:

(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
BS Program	MPhil	3.274*	.892	.001	1.18	5.37
	PhD	.813	1.731	.886	-3.26	4.88
MPhil	BS Program	-3.274*	.892	.001	-5.37	-1.18
	PhD	-2.461	1.836	.374	-6.78	1.86
PhD	BS Program	-.813	1.731	.886	-4.88	3.26
	MPhil	2.461	1.836	.374	-1.86	6.78

*. The mean difference is significant at the 0.05 level.

Table 8: *One-way ANOVA for Mean difference between the Responses of Respondents with respect to Performance and Transportation of the students.*

Transportation/ Performance	Sum of Squares	*df.*	Mean Square	*F*	Sig.
Between Groups	299.35	4	74.84	1.25	.291

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Within Groups	23719.43	395	60.05	
Total	24018.78	399		

Table 8 Presents a one-way ANOVA showing no significant difference in academic performance based on transportation method (p = .291). The results indicate that students' academic achievement is similar regardless of how they travel to campus, suggesting that transportation mode is not related to performance outcomes.

Post Hoc:

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
N/A	122	39.46	7.116	.644	38.18	40.73	24	53
Bike	87	39.08	7.896	.847	37.40	40.76	17	51
Auto	68	41.00	6.428	.779	39.44	42.56	19	47
Car	81	38.26	8.532	.948	36.37	40.15	17	51
Bus	42	38.86	9.421	1.454	35.92	41.79	16	51
Total	400	39.33	7.759	.388	38.57	40.10	16	53

Table 9: *One-way ANOVA Test for Mean Difference of the Respondents on their Response about the Performance and Father Education of the students.*

Father Education/ Performance	Sum of Squares	*df.*	Mean Square	*F*	Sig.
Between Groups	1146.86	8	143.358	2.45	.013
Within Groups	22871.92	391	58.496		
Total	24018.78	399			

A one-way ANOVA revealed that there was a significant difference in academic performance as a function of father's educational attainment (p = .013), as presented in Table 9. The results indicate that higher paternal education is associated with better student academic performance, suggesting that fathers' educational attainment has a positive influence on students' achievement.

Post Hoc:

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
N/A	59	40.34	5.413	.705	38.93	41.75	28	51
Primary	4	40.25	3.686	1.843	34.39	46.11	36	45
Middle	17	37.76	7.023	1.703	34.15	41.38	30	53
Matric	110	40.99	7.267	.693	39.62	42.36	16	53
Inter	61	39.20	8.457	1.083	37.03	41.36	19	51
Bachelor	76	38.92	7.754	.889	37.15	40.69	17	48
Masters	53	37.02	8.769	1.205	34.60	39.44	17	49
M.Phil.	16	34.63	10.911	2.728	28.81	40.44	21	47
PhD	4	44.00	.000	.000	44.00	44.00	44	44
Total	400	39.33	7.759	.388	38.57	40.10	16	53

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Table 10: *One-way ANOVA for Mean difference between the Responses of Respondents about Performance and Mother Education of the students was used.*

Mother Education/ Performance	Sum of Squares	*df.*	Mean Square	*F*	Sig.
Between Groups	1768.53	38	221.07	3.88	.000
Within Groups	22250.25	391	56.91		
Total	24018.78	399			

Table 10 presents a one-way ANOVA showing a significant difference in academic performance based on mother's education level ($F = 3.885$, $p < .001$). The results indicate that higher maternal education is associated with better student academic performance, suggesting that mothers' educational attainment positively influences students' grades and achievement outcomes.

Post Hoc:

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
N/A	87	40.85	4.434	.475	39.91	41.80	28	51
Primary	14	37.64	5.786	1.546	34.30	40.98	31	47
Middle	19	34.74	12.160	2.790	28.88	40.60	19	49
Matric	94	40.61	7.199	.743	39.13	42.08	16	52
Inter	66	37.29	8.655	1.065	35.16	39.42	17	53
Bachelor	58	37.16	9.105	1.196	34.76	39.55	17	53
Masters	39	40.21	7.001	1.121	37.94	42.47	24	49
M.Phil.	16	41.94	8.828	2.207	37.23	46.64	28	51
PhD	7	45.71	1.604	.606	44.23	47.20	44	47
Total	400	39.33	7.759	.388	38.57	40.10	16	53

Table 11: *One-way ANOVA for Mean difference between the Responses of Respondents about Performance and Income of the students*

Income/ Performance	Sum of Squares	*df.*	Mean Square	*F*	Sig.
Between Groups	377.45	7	53.92	.89	.511
Within Groups	23641.33	392	60.31		
Total	24018.78	399			

Table 11 is a one-way ANOVA that indicates that there is no significant difference in academic performance according to income group ($p = .511$). These findings show that there is no significant difference in the academic performance of students across the income level of the family implying that income does not have a direct impact on performance outcomes and grades.

Findings:

Following are the findings of the study:

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1. A significant difference in academic performance was identified across levels of adversity quotient (high, medium, low), which demonstrates that students with high AQ experience significantly better academic performance.
2. No gender differences were found to be significant in adversity quotient, indicating that male and female students have the same level of resilience.
3. There was no significant difference between male and female students in terms of academic performance, which indicates that there is no gender gap in academic performance.
4. A big difference between the performance of urban and rural students was identified in academic performance with urban students being better academically.
5. There was no significant difference between different institutes in terms of academic performance, which implies that institutional affiliation has no effect on student performance.
6. No academic performance difference was found between the performance of the public and the private university students, implying that there may be no significant variation in academic performance across sectors.
7. A significant difference was observed in the academic performance of students in various academic programs, which implies that the field of study does have an effect on student performance.
8. The study revealed that there was no significant difference in academic performance based on the mode of transportation implying that mode of transportation does not have any effect on academic performance.
9. A strong correlation was established between the education of the father and the student performance with higher education of the father being correlated to higher student performance.
10. The education level of the mother revealed a very significant effect on the academic performance level, which demonstrates that greater maternal education levels have a significant effect on their academic performance levels.
11. No significant difference in academic performance was found among the income groups and it is believed that family income does not have a direct effect on academic achievement.

Discussion

The current research was conducted to determine the role that adversity quotient plays in academic achievement of students within a university. The results indicate that there are some significant connections between resilience and academic performance as well as the impacts of the chosen demographic variables.

One of the most important findings of the study was that there was a significant difference in the academic performance of students at different levels of adversity quotient; that is, students with a higher AQ showed better academic performance. This finding is in agreement with the past studies that have indicated the importance of resilience in academic achievement (Stoltz, 2000; Parker et al., 2004). Students who have a high AQ can more readily overcome academic difficulties, withstand hardships, and have a consistent effort, which eventually results in better performance.

The researchers were also unable to find the significant gender differences in both the adversity quotient and the academic performance. This poses the question that there are no significant differences in resilience and academic success between male and female students. The finding is consistent with other recent studies that show that gender gaps in education are

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reducing (Else-Quest et al., 2010; Stoet and Geary, 2015), which represents more equal access to educational opportunities and support systems.

The substantial discrepancy was found between the urban and rural students as the urban students showed their better academic performance. This could be explained by the fact that there is more access to educational materials, there are improved learning conditions and there are enhanced systems of academic support in urban settings (Rescigno and Crowley, 2001; Khattri et al., 1997). Such aspects are likely to increase the capacity of students to respond to the requirements of academics and deliver improved results. Conversely, academic performance was not significantly different in institutes or in public and private universities. This implies that institutional type is not a significant determinant of student achievement and academic performance may be more greatly influenced by individual factors such as resilience than institutional affiliation.

Nevertheless, the academic performance differed greatly within various academic programs and curriculum design, which shows that academic field and curriculum design affect academic performance. Some programs can offer different degrees of difficulty, workload, and academic success which can influence the performance outcomes of the students.

The research also found no significant impact of the mode of transportation on academic performance, implying that the factors of commuting did not have any significant impact on the achievement of students in academic performance. Parental background proved to be a significant factor having effect on performance. Education of both father and mother was significantly positively correlated with academic achievement with higher parental education being associated with higher student performance. This observation is in line with prior studies which have noted the importance of parental education in determining academic achievement in terms of guidance, support, and a favorable learning environment (Magnuson, 2007; Harding et al., 2015).

Lastly, the researchers did not find a significant correlation between family income and academic performance, indicating that financial status does not directly correlate with academic performance. This suggests that resilience and personal coping skills can be more determinant of performance than economic aspects. Overall, the findings confirm the worth of adversity quotient as a valuable indicator of academic success and the significance of resilience in assisting students to achieve academic success despite all the possible obstacles.

Conclusion

The research finds that the adversity quotient (AQ) is an important predictor of the academic performance of students. The improved academic outcome of the higher AQ of students suggests the paramount position of resilience in academic success. No difference was found between the difference between gender and institutional differences (public vs. private and across institutes) to have any significant impact on performance and levels of achievement between these two groups were found to be similar. However, it was evident that there existed differences between urban and rural students with urban students performing better, which was likely due to better access to teaching resources and support systems. The schools also differed in the various programs of the schools which indicated that the structure of the curriculum and academic needs contribute to achievement. Also, the education of parents, especially that of mothers, had a significant influence on the performance of the students, but the family income and transportation did not have any direct effect. Overall, the findings suggest that the

individual resilience and supportive educational and family environments are the more important determinants of academic achievement, compared to demographic or institutional factors.

Recommendations

The following recommendations are derived from the findings of the study:

1. To increase the adversity quotient and academic achievement of the students, educational institutions are advised to incorporate resilience-building programs (e.g., problem-solving training, stress management workshops, and mentoring).
2. Universities will need to enhance academic support systems, such as counseling services, mentorship programs, and academic advising, to enable students to cope with academic stressors.
3. Students with rural backgrounds should be given specific assistance to decrease performance disparities by enhancing access to educational materials and learning opportunities.
4. Curriculum designers must include academic support and manageable challenges within programs to not only foster resilience but also enhance performance. The institutions ought to come up with sensitization programs to the parents to highlight the importance of the education support at home in enhancing the academic performance of the students.
5. Special attention is to be paid to program-specific interventions because academic performance does not differ in all areas of study. Special focus should be given to program-specific interventions; as academic performance varies across different fields of study.

References:

Azhar, Z., & Imran, M. (2024). Ethical Considerations in the Adoption of Artificial Intelligence in Human Resource Management: A Comprehensive Review. Journal *of Emerging Technologies and Innovative Research (JETIR)*, *11*(8).

Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology, 53*, 371–399.

Covington, M. V. (1984). The self-worth theory of achievement motivation. *The Elementary School Journal, 85*(1), 5–20. https://doi.org/10.1086/461388

Datu, J. A. D., & Valdez, J. P. M. (2019). Psychological capital predicts academic engagement and performance among Filipino high school students. *School Psychology International, 40*(3), 284–304.

Ekpoh, U. I., & Ezeah, P. (2020). Differentials in access and academic performance in Nigerian universities. *SAGE Open, 10*(1), 1–10. https://doi.org/10.1177/2158244019899769

Else-Quest, N. M., Hyde, J. S., & Linn, M. C. (2010). Cross-national patterns of gender differences in mathematics. *Psychological Bulletin, 136*(1), 103–127.

Haider, S., Mirwani, R., Imran, M., & Haider, H. (2025). The Emotional Landscape of Organizational Change: A Qualitative Study of Teachers in Lasbela, Balochistan. *Journal of Political Stability Archive*, *3*(3), 1482-1502. https://doi.org/10.63468/jpsa.3.3.98

Harding, D. J., et al. (2015). Family structure and child outcomes. *Social Science Research, 52*, 1–18.

Hossain, A., Tasnim, A. F., Akhter, F., Semi, M. M. A., Khan, R., Rahman, R., ... & Sabeena, A. A. (2025). Transforming Healthcare Decisions in the US Through Machine Learning. Artificial Intelligence, 1(2).

Imran, M. (2022). Drawbacks of E-Learning for the Toddlers and their Possible Solutions: A Detailed Study. *Spry Contemporary Educational Practices*, *1*(1).

Imran, M., & Akhtar, N. (2023). Impact of Ethical Leadership Practices on Teachers' Psychological Safety and Performance: A Case of Primary School Heads in Karachi-Pakistan. Academy of Education and Social Sciences Review, 3(2), 172-181. https://doi.org/10.48112/aessr.v3i2.505

Imran, M., Akhtar, N., & Khan, N. (2026). Ethical Leadership in Early Years Education: Implications for Teacher Professional Ethics and the Learning Environment–A Qualitative Study. *Journal of Political Stability Archive*, *4*(1), 260-281. https://doi.org/10.63468/jpsa.4.1.15

Imran, M., Khan, N., & Rani, H. (2025). Analyzing the Effectiveness of AI Tools in Academic Writing for ESL Learners. *Advanced Research in Emerging Technologies and Digital Systems, 4(1)*, 9-18.

Imran, M., Sultana, Z., & Jat, Z. G. (2023). Education as A Social Agent of Culture Change: Literature Review. *Benazir Research Journal of Humanities and Social Sciences, 2(1)*.

Jdaitawi, M. (2019). The influential role of emotional intelligence and adversity quotient on stress. *International Journal of Mental Health and Addiction, 17*(4), 832–848. https://doi.org/10.1007/s11469-019-00096-6

Khattri, N., Riley, K. W., & Kane, M. (1997). Students at risk in poor rural areas. *Journal of Education for Students Placed at Risk, 2*(2), 79–100.

Maddi, S. R., et al. (2013). Hardiness and academic success. *Journal of Humanistic Psychology, 52*(3), 292–305.

Magnuson, K. (2007). Maternal education and child development. *Social Science Review, 81*(4), 662–672.

Moe, A., Katz, I., & Alesi, M. (2019). Adversity quotient and academic achievement in medical students. *Medical Education, 53*(9), 924–934.

Oad, L., Shah, R., Sewani, R., Ahmad, N., Akhtar, N., & Imran, M. (2024). Empowerment of Artificial Intelligence in Learning Optimisation Student Perceptions in Karachi, Pakistan. *International Journal of Educational Sciences*, *47*(2), 34-44.

Oad, L., Zaidi, S.S., & Phulpoto, S. A. J., (2023). Helicopter Parenting and its Influence on the Children of Pakistan: Thematic Analysis. Spry Journal of Humanities and Social Sciences (SJHSS), 1(2), 72-87. https://doi.org/10.62681/sprypublishers.sjhss/1/2/1

Ogundokun, M. O., & Adeyemo, D. A. (2010). Emotional intelligence and academic achievement. *The African Symposium, 10*(2), 127–141.

Parker, J. D. A., et al. (2004). Emotional intelligence and academic success. *Personality and Individual Differences, 36*, 163–172.

Pekrun, R. (2006). Control-value theory of achievement emotions. *Educational Psychology Review, 18*(4), 315–341. https://doi.org/10.1007/s10648-006-9029-9

Phulpoto, S. A. J., Oad, L., & Imran, M. (2024). Enhancing Teacher Performance in E-Learning: Addressing Barriers and Promoting Sustainable Education in Public Universities of Pakistan. *Pakistan Languages and Humanities Review, 8(1)*, 418–429. https://doi.org/10.47205/plhr.2024(8-I)38

Ramos-Díaz, E., et al. (2018). Adversity quotient and academic performance. *European Journal of Education and Psychology, 11*(1), 47–61.

Rangriz, H., & Khaksar, S. (2018). Academic stress among university students. *Journal of Education and Practice, 9*(1), 45–52.

Rescigno, R. C., & Crowley, B. M. (2001). Rural vs urban education differences. *Educational Research Quarterly, 25*(1), 3–15.

Riipa, M. B., Ahmed, F., Rony, M. K. K., Hossain, A., Islam, A., Utsho, M. R., ... & Tasnim, A. F. (2026). The role of artificial intelligence in predicting cardiovascular outcomes: a systematic review and meta-analysis. *Biostatistics & Epidemiology*, *10*(1), e2670804.

Shah, M., Bennett, A., & Southgate, E. (2017). Higher education and institutional differences. *Higher Education Research & Development, 36*(1), 1–14.

Singh, K., & Bhargava, M. (2022). Adversity quotient and student self-perception. *Education Today, 34*(2), 221–234.

Stoet, G., & Geary, D. C. (2015). Sex differences in academic achievement. *Intelligence, 48*, 85–92.

Stoltz, P. G. (2000). *Adversity quotient at work*. William Morrow.

Stoltz, P. G. (2000). *Adversity quotient: Turning obstacles into opportunities*. Wiley.

Verma, S., et al. (2018). Adversity quotient in education. *International Journal of Educational Research, 12*(3), 55–63.

York, T. T., Gibson, C., & Rankin, S. (2015). Defining and measuring academic success. *Educational Research Review, 11*, 1–20.

Zaidi, S. S., & Sultana, Z. (2023). Influence of Internet in Shaping the Emotional Maturity of Adolescents: A Review Study. *Spry Journal of Humanities and Social Sciences*, *1*(1).

Zaidi, S. S., Imran, M., Khoso, F. J., & Sultana, Z. (2024). Impact of Technologies and Co-Curricular Activities on Students' Academic Achievement at the Undergraduate Level. *Journal of Social & Organizational Matters*, *3*(3), 75-90. https://doi.org/10.56976/jsom.v3i3.99.