

# Analyzing The Relationship Between Personality Traits And Academic Performance Among Undergraduate Nursing Students

Munnaza Parveen<sup>1</sup>, Abdul Basit<sup>2</sup>, Momal<sup>3</sup>, Muhammad Nayab<sup>4</sup>, Sayyed Waqas Jan<sup>5</sup>

## Abstract

*This study investigates the intricate relationship between personality traits and academic performance among undergraduate nursing students. Conducted through a quantitative analysis of survey data collected from second, third, and fourth-year students at prominent nursing institutes in Karachi, including Jinnah College of Nursing, Ilmiya College of Nursing, and College of Nursing (Male) Korangi No.5, the research identifies extraversion and conscientiousness as significant predictors of academic success. The findings emphasize the necessity of considering individual personality traits in comprehending student achievement within nursing education. For this, the study uses the Big Five Personality Traits Model. The data was collected from n=215 participants by using n<sup>1</sup> on probability sampling. There was total of N= 407 participants. This survey was conducted. The research instrument is the Big Five Inventory (BFI) proposed by Fossati, Borroni, Marchione and Maffei (2011). SPSS was used to analyze the data. The results of the study show that personality has an impact on the academic performance of nursing undergraduate learners. The personality traits such as conscientiousness and agreeableness traits of the learners have wider effects. The correlation results show that there is a strong positive correlation between extraversion and academic performance and conscientiousness has also a moderate positive relation. It is recommended that evidence-based practices and policies are geared towards nurturing academic success and enhancing the quality of nursing education.*

**Keywords:** *Personality, Traits, Academic Performance, Nursing Undergraduates, Learning Styles.*

## Introduction

Understanding the intricate relation between personality traits and academic performance among undergraduate nursing students is emerging in fostering tailored educational strategies and nurturing future healthcare professionals. As the healthcare landscape evolves, the importance of comprehending how individual characteristics influence scholastic achievements becomes increasingly evident (Buriro et al., 2023). This research paper is an attempt to the nuanced relationship between personality traits and academic success within the context of undergraduate nursing education, highlighting the factors that contribute to student performance and informing educational practices aimed at optimizing learning outcomes in this emerging field (Buriro et al., 2024).

---

<sup>1</sup> Assistant Professor Jinnah Collage of Nursing Sohail University Karachi, Pakistan

<sup>2,3,4,5</sup>Sohail Trust Hospital Karachi Pakistan

Corresponding author email: munnaza7@yahoo.com

There exist multiple elements that impact students' academic performance, motivation level, and behaviour (Ali, Naseer & Nadeem, 2021; Asif & Ghazal, 2022; Lashari et al., 2018; Naseer & Rafique, 2021). Those important contributors also include emotional intelligence and personality (Mohammadi & Asgari, 2016; Lashari & Umrani, 2023). Numerous research conclusions suggested that academic success is positively correlated with personality and emotional intelligence (Castillo, Salguero, Fernández-Berrocal, & Balluerka, 2013; Todres, Tsimitsiou, Stephenson, & Jones, 2010).

Achieving success academically is another goal in life (Lashari, Umrani & Buriro, 2021). It includes the students' aptitude and performance. It may have to do with a person's diverse set of abilities (Lashari et al., 2023; Fayaz et al., 2023). Emotions and personality play an important function in enhancing these skills in an individual (Fayaz et al., 2023). A person's personality is a culmination of their many skills and assets (Gardner, 1983). A list of 161 personality qualities known as "clusters" was put together by Cattell (1957) (Cattell, 1946, 1957). John (1990) introduced the most widely used personality model, which was built on five dimensions: neuroticism, agreeableness, conscientiousness, extraversion, and openness to new experiences. Emotional intelligence (EI), like personality qualities, is essential for achieving life's educational objectives (Buriro et al., 2023).

There is a strong relationship between personality traits and academic performance. Numerous investigations have been carried out in Pakistan and many other countries to investigate the correlation between students' life achievement, emotional intelligence, and personality qualities (Lashari, Umrani & Buriro, 2021; Lashari & Umrani, 2023). Higher academic achievement is associated with a more developed personality (Lashari et al., 2023; Kolachina, 2014). Poropat (2009) provided additional evidence to support the notion that the three personality qualities of conscientiousness, openness, and agreeableness are highly correlated with students' academic achievement. There is a strong association between academic achievement and conscientiousness. Although academic achievement and neuroticism have a negative link (Ahadi & Narimani, 2009; Lashari et al., 2023a; Buriro et al., 2023).

To sum up, these various studies have demonstrated that various personality traits—such as extroversion, agreeableness, conscientiousness, and openness—are positively and negatively associated with emotional intelligence as well as academic and life success (Hogan, Hogan & Roberts, 1996; Abood et al., 2020; Inte, 2020). Thus, personality traits are crucial in optimizing emotional intelligence, which is a major factor in predicting academic performance and achievements (Balouch et al., 2023). Accordingly, emotional intelligence has been found to play a mediating function between personality traits and academic success in the current study. This finding is consistent with prior research that found personality to be a strong predictor of both emotional intelligence and scholastic performance.

### **Problem Statement**

Within undergraduate nursing education, there is an important but uncovered domain that sits at the confluence of personality traits and academic achievement. Although the importance of these aspects in determining student performance has been acknowledged, there is still a significant gap in exploring the relationship between personality traits and nursing students' academic performance. By examining the complex relationship between personality traits and academic achievement in the context of undergraduate nursing education, this research aims to close this gap. This study attempts to clarify the significance of personality traits in influencing the learning process, study habits, and general academic success of nursing students by examining the special possibilities and obstacles found in nursing education.

### **Scope of the Study**

The academic success of undergraduate nursing students is a matter of significant concern for educators, researchers, and institutions alike. However, the multifaceted nature of academic performance and the diverse range of individual traits make it imperative to understand the underlying factors that contribute to or hinder students' achievements. One such factor that has garnered attention is the potential relationship between personality traits and academic performance. The findings of this study will inform evidence-based strategies that promote better learning outcomes, student well-being, and overall success in nursing programs.

### **Research Questions**

What is the relationship between the personality traits and academic performance of undergraduate nursing students?

What is the effect of personality traits on the academic performance of undergraduate nursing students?

### **Literature Review**

It is not a novel concept to investigate the connection between personality features and learning styles (Fallen, 2006). Numerous research has demonstrated a correlation between personality traits and learning styles (Madiha, Lashari & Ammara, 2023). Personality with a strong sense of motivation and persistence plays a significant role in attaining lifelong goals particularly the attainment of higher results in academic progress (Kim, Roh, Ilhm, 2018). To promote better knowledge delivery, it is important to consider strategies for supporting and motivating learners, as the traditional teacher-centred approach to learning has given way to a student-centred one (Khemcand, Kang & Lashari, 2024). Therefore, medical instructors need to be aware of the unique characteristics of each student, their personality traits and their motivation for learning (Lashari, Umrani & Buriro, 2021; Siddiquei & Khalid, 2018). The current study focuses on the potential effects of learning styles and personality factors on students' academic progress. The goal of this study is to develop a better understanding of medical school's educational program. Studying personality traits, various learning styles, and how they relate to students' academic achievement will enhance their educational experience (Khan, et al., 2018; Siddiqui, Lashari & Dahani, 2024; Nasseer, Mussarat & Asghari, 2022).

### **Big Five Personality Traits Model**

A reliable and efficient paradigm for comprehending the connection between personality and different academic behaviours is the Big Five framework of personality traits (Costa & McCrae, 1992) (Poropat, 2009). Being orderly, focused on goals, and disciplined are characteristics of conscientiousness.

Anxiety, impulse control, and emotional stability are all considered aspects of neuroticism. Higher levels of talkativeness, assertiveness, and sociability are characteristics of extraversion. A strong sense of intellectual curiosity and a propensity for novelty and variety are indicators of openness. Lastly, being cooperative, kind, and helpful to others is referred to as agreeableness. It is advised that educators move beyond the current emphasis on cognition and incorporate personality and motivation into their understanding of academic behaviour. There is evidence to suggest that these variables are closely linked to individual differences in learning styles (Miller, 1991).

### **Personality and Academic Achievements**

Academic success is also influenced by personality factors. For example, conscientiousness is a reliable indicator of both GPA (Conard, 2006) and exam performance (Chamorro-Premuzic & Furnham, 2003). Different educational results have also been found to be predicted by combinations of the Big Five qualities. Specifically, agreeableness, conscientiousness, and openness predict overall academic achievement (Farsides & Woodfield, 2003; Poropat, 2009),

and conscientiousness and openness predict course performance (Paunonen & Ashton, 2001). It has also been discovered that extraversion, openness, and conscientiousness predict GPA, particularly when students apply their prior knowledge to real-world situations (Lievens, Ones, & Dilchert, 2009). Conversely, academic success is inversely correlated with neuroticism or emotional instability (Chamorro-Premuzic & Furnham, 2003). Apart from the Big Five, additional attributes like perseverance or grit can also be used to predict academic success (Duckworth, Peterson, Matthews, & Kelly, 2007). Even though these results support the importance of personality traits, further research is still required to look at individual-level elements such as students' learning styles.

The vast array of personality traits assessed by different personality inventories can be categorized under five higher-order personality factors: extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience, according to an emerging consensus among personality psychologists in recent years (Duckworth et al., 2007) a synopsis of the Big Five model, often known as the Five-Factor Model (FFM), structure.

### **Method & Procedure**

Survey methods were used in a quantitative study strategy to examine the relationship between personality factors and academic achievement among undergraduate nursing students. The study focused on students who were enrolled in Jinnah College of Nursing, Ilmiya College of Nursing, and College of Nursing (Male) Korangi No.5, three respectable Nursing Schools in Karachi, in the second, third, and fourth years of the Generic Bachelor of Science in Nursing (BSN) program. Using non-probability convenience sampling, a sample of 215 participants was chosen from a total eligible population of 407 students. This method was chosen for its practical applicability and accessibility. By using this sampling technique, it was easier to find willing participants from a variety of backgrounds, guaranteeing the study's sample would be representative.

A systematic survey with questions intended to evaluate participants' study habits, personality traits, academic achievement metrics, and demographic data was administered as part of the research process. The survey tool was thoughtfully designed to collect pertinent data and make statistical analysis easier. The survey was anonymously completed by participants, and to maintain data confidentiality and accuracy, the answers were electronically recorded. The Statistical Package for the Social Sciences (SPSS) was used for quantitative data analysis and was then used to analyze the data. To investigate the correlation between personality traits and academic performance was investigated by using descriptive statistics, correlation analysis, and regression analysis to reach a robust conclusion. The tool of the study is the Big Five Inventory (BFI) consists of 44 items. Using a five-point Likert scale.

Participants, confidentiality, and informed consent are all considered ethical considerations. Potential participants have been given written consent forms before their involvement, with an emphasis on voluntary participation. They received a comprehensive briefing on the goals, methodology, and timeframe of the study to help them make wise decisions. Furthermore, guarantees have been provided about the privacy of all information gathered, clearly indicating that data would be utilized just for study and will not be shared with outside parties. Institutional approval has been obtained to maintain ethical norms.

### **Results**

Table 1 Descriptive Analysis of Demographic Information of the Participants

S.N	Nominal Variables	Mean	SD	Frequency (n)	Percentage (%)
1	Age in years				

18-25	139	64.6 %
26-35	76	35.4 %
2. Gender		
Male	155	72.1%
Female	60	27.9%
3. Level of Education		
2 <sup>nd</sup> year	54	25.1%
3 <sup>rd</sup> year	84	39.1%
4 <sup>th</sup> year	77	35.9%
Marital Status		
Single	184	85.6%
Married	24	11.2%
Divorce	7	3.3%
Total	215	100%

Most participants fall within the age range of 18-25 years, comprising 64.6% of the total, with a mean age of 3.50 years and a standard deviation of 0.61. Gender distribution indicates a higher representation of males (72.1%) compared to females (27.9%). Regarding the level of education, the participants are distributed across different academic years, with 25.1% in the 2nd year, 39.1% in the 3rd year, and 35.9% in the 4th year. Marital status shows that the majority are single (85.6%), followed by married (11.2%), and a smaller proportion is divorced (3.3%).

Table 2 Nursing students' levels of Personality Traits across different dimensions

S, #	Personality Trait	Mean	Standard Deviation
1.	Extraversion	26.00	4.25
2.	Agreeableness	28.03	4.65
3.	Conscientiousness	30.00	5.56
4.	Neuroticism	25.89	5.52
5.	Openness	29.23	5.07

Table 2 presents the levels of personality traits among nursing students across various dimensions. The mean scores indicate that, on average, participants exhibit moderate levels of extraversion (Mean = 26.00, SD = 4.25), agreeableness (Mean = 28.03, SD = 4.65), conscientiousness (Mean = 30.00, SD = 5.56), neuroticism (Mean = 25.89, SD = 5.52), and openness (Mean = 29.23, SD = 5.07). Notably, conscientiousness demonstrates the highest mean score, suggesting a tendency toward responsibility, organization, and goal-directed behaviour among nursing students. On the other hand, neuroticism exhibits a lower meaning, indicating a relatively lower level of emotional instability or negative affectivity.

The correlational analysis of undergraduate nursing students' Academic Performance (GPA) and Personality qualities (Agreeableness, Conscientiousness, Extraversion, Neuroticism, and Openness).

S#	Trait	Correlation with GPA	Interpretation
1.	Agreeableness	0.12	Weak positive correlation
2.	Conscientiousness	0.34	Moderate positive correlation
3.	Neuroticism	-0.18	Weak negative correlation
4.	Openness	0.25	Weak positive correlation
5.	Extraversion	0.64	Strong positive correlation

The correlational analysis conducted in Table 3 delves into the intricate relationship between personality traits and academic achievement (GPA) among undergraduate nursing students, shedding light on compelling findings. The results unveil several noteworthy correlations, each offering insightful implications for student performance. Notably, Agreeableness exhibits a weak positive correlation with GPA ( $r = 0.12$ ), suggesting that students demonstrating higher levels of agreeableness may experience slightly better academic outcomes. Conversely, Neuroticism displays a weak negative correlation with GPA ( $r = -0.18$ ), indicating that heightened neurotic tendencies may marginally hinder academic performance. However, the most striking correlation emerges with Conscientiousness, revealing a moderate positive association with GPA ( $r = 0.34$ ). Furthermore, Extraversion demonstrates a robust positive correlation with GPA ( $r = 0.64$ ), suggesting that students characterized by sociability and assertiveness tend to achieve higher academic success. Additionally, Openness to experiences exhibits a weak positive correlation with GPA ( $r = 0.25$ ), hinting at a potential link between intellectual curiosity and academic achievement. These findings collectively underscore the significant influence of certain personality traits, particularly extraversion and conscientiousness, on the academic performance of undergraduate nursing students. Such insights hold valuable implications for educators and researchers, offering avenues for tailored interventions and support mechanisms to enhance student outcomes in nursing education, Table 4. Relationship of Demographic Characteristics with Personality trait and GPA

S. NO	Variables	Extraversion	Agreeableness	Neuroticism	Openness	Conscientiousness	GPA
Level of Education	P-value	0.859	0.008	0.456	0.000	.237	0.265
Gender	P-value	0.368	0.087	0.333	0.037	.065	0.368

Marital Status	P-value	0.071	0.007	0.071	0.220	.022	0.000
Age	P value	0.408	0.259	0.701	0.660	-.101	0.796

Table 4 presents the relationship between demographic characteristics and personality traits (Extraversion, Agreeableness, Neuroticism and Openness) and GPA among undergraduate nursing students.

#### **Level of Education**

The p-values for Extraversion (0.859), Agreeableness (0.008), Neuroticism (0.456), Openness (0.000), Conscientious (0.237) and GPA (0.265) indicate that there are significant associations between Agreeableness, Openness, and GPA with the student's level of education. Specifically, higher levels of Agreeableness and Openness are associated with certain educational levels.

#### **Gender**

The p-values for Extraversion (0.368), Agreeableness (0.087), Neuroticism (0.333), Conscientious (0.065) and Openness (0.037) suggest that there are significant associations between Agreeableness, Openness, and Gender. This implies that there may be gender-related differences in Agreeableness and Openness among the nursing students.

#### **Marital Status**

The p-values for Extraversion (0.071), Agreeableness (0.007), Neuroticism (0.071), Conscientious (0.022) and Openness (0.220) suggest significant associations between Agreeableness, Conscientious and Neuroticism and marital status. This implies that marital status may have an impact on certain personality traits among nursing students.

#### **Age**

The p-values for Extraversion (0.408), Agreeableness (0.259), Neuroticism (0.701), Openness (0.660), Conscientious (-0.101) and GPA (0.796) indicate that Conscientious is significant associations between age.

These statistical results highlight potential links between demographic characteristics and personality traits and GPA among undergraduate nursing students. These associations can be crucial for understanding the nuanced interplay between individual characteristics and academic performance in this specific student population.

#### **Conclusion**

In conclusion, this study has yielded valuable insights into the intricate relationship between personality traits and academic performance among undergraduate nursing students. Through a quantitative analysis of survey data collected from second, third, and fourth-year students at prominent nursing institutes in Karachi, including Jinnah College of Nursing, Ilmiya College of Nursing, and College of Nursing (Male) Korangi No.5, it was found that extraversion and conscientiousness emerge as significant predictors of academic performance. These findings underscore the importance of considering individual personality traits in understanding student achievement within nursing education.

Moreover, the study highlights the need for tailored interventions and support mechanisms to enhance academic performance among nursing students. By recognizing the influence of personality traits such as extraversion and conscientiousness, educators and researchers can develop targeted strategies to support students in maximizing their academic potential. Such

interventions may include personalized study plans, mentorship programs, and resources designed to capitalize on students' strengths and mitigate potential challenges.

## References

- Abood, M. H., Alharbi, B. H., Mhaidat, F., & Gazo, A. M. (2020). The Relationship between Personality Traits, Academic Self-Efficacy and Academic Adaptation among University Students in Jordan. *International Journal of Higher Education*, 9(3), 120-128. <https://doi.org/10.5430/ijhe.v9n3p120>
- Abouzeid, E., Fouad, S., Wasfy, N. F., Alkhadragey, R., Hefny, M., & Kamal, D. (2021). Influence of personality traits and learning styles on undergraduate medical students' academic achievement. *Advances in Medical Education and Practice*, 769-77. <https://doi.org/10.2147/AMEP.S314644>
- Ahadi, B., & Narimani, M. (2009). Study of relationship between personality traits and Education. *Trakia Journal of Sciences*, 8(3), 53-60.
- Ali, S., Naseer, S., & Nadeem, A. (2021). Perceived teachers' support and academic achievement: Mediating role of students' satisfaction with online learning in medical and non-medical students during COVID- 19. *Journal of Psychiatry*, 22(9), 1-10.
- Asif, M., Ghazal, S., Kazim, M., Idrees, M., & Zaheer, U. A. (2020). Optimistic bias about COVID-19 infection susceptibility across demographics in Pakistan. *Journal of Research in Psychology*, 2(2), 1923.
- Balouch, Z. U. L., Lashari, A. A., Pervaiz, A., Jatoi, D. K., & Anjum, S. (2023). Vocational training to empower incarcerated women: Unlocking the potentials behind the bars. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 20(1), 1124-1134.
- Baykal, D., & Yildirim, D. (2020). Investigating the effect of personality traits and academic self-efficacies on malpractice tendencies in healthy college students. *Nigerian Journal of Clinical Practice*, 23(12), 1721-1727.
- Buriro, S. A., Parveen, M., Hashmi, F. P., Nazly, A., Robinson, Y. A., & Alferd, A. (2024). EXPLORING THE CHALLENGES OF POLYCYSTIC OVARY SYNDROME (PCOS) DIAGNOSED WOMEN AND THEIR JOURNEY TOWARDS FERTILITY. *Journal of Population Therapeutics and Clinical Pharmacology*, 31(1), 2081-2090.
- Buriro, S. A., Memon, S. A., Iqbal, Z., Chandio, I., Channar, H. B., & Thebo, D. S. (2023). Analysis of anxiety, depression and perceived stress in women with polycystic ovary syndrome (PCOS). *Journal of Population Therapeutics and Clinical Pharmacology*, 30(19), 381-390.
- Buriro, S. A., Mirjat, M. A., Pathan, R. L., Chandio, I., Lashari, A. A., & Gul, H. (2023). Eco-Friendly pedagogies for STEM Education: A review. *Journal of Namibian Studies: History Politics Culture*, 34, 3018-3044.
- Cattell, R. B. (1946). *The description and measurement of personality*. Yonkers, NY: World Book.
- Cattell, R. B. (1957). *Personality and motivation structure and measurement*. NY: World Book.
- Castillo, R., Salguero, J. M., Fernández-Berrocal, P., & Balluerka, N. (2013). Effects of an emotional intelligence intervention on aggression and empathy among adolescents. *Journal of Adolescence*, 36(5), 883-892.
- Chamorro-Premuzic, T., & Furnham, A. (2003). Personality traits and academic examination performance. *European Journal of Personality*, 17, 237-250.
- Conard, M. A. (2006). Aptitude is not enough: How personality and behavior predict academic performance. *Journal of Research in Personality*, 40, 339-346.
- Costa Mastrascusa, R., de Oliveira Fenili Antunes, M. L., de Albuquerque, N. S., Virissimo, S. L., Foletto Moura, M., Vieira Marques Motta, B., ... & Quarti Irigaray, T. (2023). Evaluating the complete (44-item), short (20-item) and ultra-short (10-item) versions of the Big Five Inventory (BFI) in the Brazilian population. *Scientific Reports*, 13(1), 7372.
- Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality & Social Psychology*, 92, 1087-1101.
- Fallan, L. (2006). Quality reform: Personality type, preferred learning style and majors in a business school. *Quality in Higher Education*, 12(2), 193-206.

- Fayyaz, S., Lashari, A. A., Channar, H. B., Chang, M. A., Bano, N., & Buriro, S. A. (2023). Impacts of newly government-inducted teachers' performance on learners' outcomes. *Al-Qantara*, 9(4), 262-279.
- Farsides, T., & Woodfield, R. (2003). Individual differences and undergraduate academic success: The roles of personality, intelligence, and application. *Personality and Individual Differences*, 34, 1225–1243.
- Gardner, H. E. (2011). *Frames of mind: The theory of multiple intelligences*. Basic books.
- Hogan, R., Hogan, J., & Roberts, B. W. (1996). Personality measurement and employment decisions: Questions and answers. *American psychologist*, 51(5), 469.
- Inte, M. E. R. (2020). Personality traits and academic performance in mathematics of secondary students. *Journal of World English and Educational Practices*, 2(2), 103-112.
- John, R., John, R., & Rao, Z. U. R. (2020). The Big Five personality traits and academic performance. *J Law Soc Stud*, 2(1), 10-19.
- Kim, M., Roh, S., & Ihm, J. (2018). The relationship between non-cognitive student attributes and academic achievements in a flipped learning classroom of a pre-dental science course. *Korean journal of medical education*, 30(4), 339.
- Khan, D. (2020). Gender differences in personality traits in relation to academic performance. *MIER Journal of Educational Studies Trends and Practices*, 124-137.
- Khan, A., Shin, H., Sanil, H., & Sabil, S. (2018). Effect of personality traits and learning styles towards students' academic achievement in Johor Bahru. *International Journal of Engineering and Technology*, 7(2.10), 4-9.
- Khemchand, K., Kang, M. A., & Lashari, A. A. (2024). Effect Of Picture comprehension on higher order thinking skills of grade six students. *Migration Letters*, 21(S4), 1838-1850.
- Kolachina, A. (2014). Impact of emotional intelligence on academic achievements of expatriate college students in Dubai. *International Journal of Social Science and Humanities Research*, 2(2), 97-103.
- Kuśnierz, C., Rogowska, A. M., & Pavlova, I. (2020). Examining gender differences, personality traits, academic performance, and motivation in Ukrainian and Polish students of physical education: A cross-cultural study. *International journal of environmental research and public health*, 17(16), 5729.
- Lashari, A. A., Mahar, S. S., Solangi, M. A., Buriro, S. A., & Chang, S. H. (2023). Music education in language and cognitive development: A critical review. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 20(2), 2101-2111.
- Lashari, A. A., Abbasi, F. N., Kurd, S. A., Mirjat, M. A., Mehmood, T., & Ahmad, S. (2023a). The impact of mobile assisted language learning (MALL) on ESL students' learning. *Onomázein*, (60 (2023): June), 137-148.
- Lashari, A. A., Mashori, G. M., Abbasi, A. M., & Talpur, Q. (2018). Motivation to learn english language: a study of shah abdul latif university, khairpur, sindh. *International Journal of English Linguistics*, 8(1), 15-21.
- Lashari, A. A., Rizvi, Y., Abbasi, F. N., Kurd, S. A., Solangi, M. A., & Golo, M. A. (2023). Analyzing the impacts of social media use on learning English language. *Al-Qantara*, 9(4), 133-146.
- Lashari, A. A., & Umrani, S. (2023). Reimagining self-directed learning language in the age of artificial intelligence: A systematic review. *Grassroots* (17260396), 57(1).
- Lashari, A. A., Umrani, S., & Buriro, G. A. (2021). Learners' Self-regulation and Autonomy in Learning English Language. *Pakistan Languages and Humanities Review*, 5(2), 115-130.
- Lievens, F., Ones, D. S., & Dilchert, S. (2009). Personality scale validities increase throughout medical school. *Journal of Applied Psychology*, 94, 1514–1535.
- Lui, H. P. B. (2020). An investigation of the relationship between personality traits and academic performance (Doctoral dissertation, Hong Kong: Hong Kong Shue Yan University).
- Madiha., Lashari, A. A., & e Ammara, U. (2023). Unlocking the future: Investigating the impact of smartphone use on academic performance and learning the language. *International Journal of Contemporary Issues in Social Sciences*, 2(3), p.44-55.
- Mohammadi, M. A., & Asgari, S. (2016). The relationship between personality characteristics and emotional intelligence and academic performance at the students of Medical Sciences the Alborz Province. *Biomedical & Pharmacology Journal*, 9(2), 715-722.

- Naseer, S., Mussarat, R., & Malik, F. (2022). Personality Traits and Academic Achievements of Undergraduate Students: The Mediating Role of Emotional Intelligence. *Pakistan Journal of Psychological Research*, 37(1).
- Naseer, S., & Rafique, S. (2021). Moderating role of teachers' academic support between students' satisfaction with online learning and academic motivation in undergraduate students during COVID-19. *Education Research International*, 2021. 1-9.
- Paunonen, S. V., & Ashton, M. C. (2001). Big five predictors of academic achievement. *Journal of Research in Personality*, 35, 78–90.
- Poropat, E. A. (2009). A meta-analysis of the five-factor model of personality and academic performance. *Psychological Bulletin*, 135(2), 322-338.
- Siddiquei, N., & Khalid, R. (2018). The relationship between personality traits, learning styles and academic performance of e-learners. *Open Praxis*, 10(3), 249-263.
- Siddiqui, A., Lashari, A. A., & Dahani, A. B. (2024). A Critical Appraisal on Perspective Relations between Modernism and Postmodernism: Highlighting the Case of ELT Pedagogical Practices. *Journal of Arts and Linguistics Studies*, 2(1), 325-341.
- Todres, M., Tsimtsiou, Z., Stephenson, A., & Jones, R. (2010). The emotional intelligence of medical students: an exploratory cross-sectional study. *Medical Teacher*, 32(1), 42-48.