

ORIGINAL ARTICLE

AN ANALYSIS OF PERSONALITY TRAITS IN UNDERGRADUATE DOCTOR OF PHYSICAL THERAPY STUDENTS AT THE INSTITUTE OF PHYSICAL MEDICINE AND REHABILITATION AND REHMAN COLLEGE OF REHABILITATION SCIENCES: A CROSS-SECTIONAL STUDY

Minahil Qazi¹, Faraz Amin², Alina Rashid Samin³, Sara Hussain⁴, Menahil Ali⁵, Hoor Ali Kakar⁶

Author's Affiliation

¹⁻⁶Rehman College of Rehabilitation Sciences, Rehman Medical Institute Peshawar

Corresponding Author

Hoor Ali Kakar
Rehman College of Rehabilitation Sciences, Rehman Medical Institute Peshawar
Email:hoorkakar.kmu@gmail.com

ABSTRACT

Objective: To determine personality traits among undergraduate Doctor of Physical Therapy (DPT) students, find its association with demographics (age, institute, gender, residence, financial status), and CGPA.

Material & Methods: This study was a cross-sectional study, in which 209 participants were recruited from IPM&R and RCRS and convenience sampling was used for data collection. SPSS (Statistical Package for the Social Sciences) version 2022 was used for the analysis of the data.

Results: The personality trait calculated for 209 participants lies within the normal range of their respective domains with the exception of demographic factors such as institute and CGPA, which demonstrated no significant associations with personality traits. Notably, a positive correlation was observed between openness to experience and extraversion with CGPA, while a negative correlation was established between agreeableness, conscientiousness, and emotional stability with CGPA.

Conclusion: From the present study, we conclude that in majority of the undergraduate student's personality traits were within the normal score while association of personality traits with their demographics clearly showed that agreeableness, extraversion and emotional stability was closely associated with all the demographics except that of institutions and CGPA. While a positive correlation of CGPA existed with openness to experience and extraversion while a negative correlation with agreeableness, conscientiousness, and emotional stability.

Key Words: Personality, Psychology, Student, Traits.

This article may be cited as: Qazi M, Amin F, Samin AR, Hussain S, Ali M, Kakar HA. An analysis of personality traits in undergraduate doctor of physical therapy students at the Institute of Physical Medicine and Rehabilitation and Rehman College of Rehabilitation Sciences: a cross-sectional study. *Ann Allied Health Sci.* 2024;10(2):44-48.

INTRODUCTION

Personality is an individual's dynamic characteristic that differentiates a person from other individuals. Also defined as characteristic, that of thoughts and behavior of a person. ¹ Personality traits on the other hand is a characteristic pattern of and individual that of their thought, emotions or behavior that vary

from individual to individual. Each human being tends to have five basic traits of the personality that include sociable, individual's agreeableness, honest, emotional stability of an individual and lastly openness to experience of an individual. Students' academic performance, academic achievement and academic motivation has an important impact on student's personality traits. ³

Students' personality trait and academic performance has a strong association as openness to experiences provides a better outcome for learning new experiences⁴. With this academic achievement also tends to play role and its impact on personality traits such that openness to experience have relationship with the intelligence.⁵

Academic motivation has a relationship with personality trait such that certain traits of personality enhance the motivation of the students and such students tends to be more motivated with traits such as agreeableness and openness to experience.⁶ At times these personality traits tend to change, these changes can either be due to any life experience or event that directly impacts the personality trait on and individual.⁷

Keeping in view these personality traits of an individual several studies have been conducted in order to see the association of personality traits to various other factors among which a cross sectional study in Malaysia (2015) was held among eight secondary school's teachers, the findings were that a positive correlation among the trait agreeableness, openness to experience and performance in term of job, also the study concluded that a negative correlation was there among job performance neuroticism also there was positive correlation between agreeableness and openness to experience with job performance so both neuroticism and openness to experiences were important forecaster component that could influence the job performance of an individual.⁸ Similarly a study conducted in occupational therapy students in Australia (2017), states that emotional intelligence in occupational therapy students was the important forecaster component of their investigation of performance while on the other hand personality traits of students, were not the important component, the results of this study were quite different such that emotional intelligence is an important tool for certain aspects of performance and also tend to improve the self-awareness and attributes and thoughts of occupational therapy students.⁹ The objective of the To determine personality traits among undergraduate Doctor of Physical Therapy Students of (IPM&R) and (RCRS), Peshawar. The objective of the study was to determine personality traits among undergraduate Doctor of

Physical Therapy (DPT) students, find its association with demographics (age, institute, gender, residence, financial status and CGPA), and CGPA.

MATERIAL AND METHODS

The research was an observational, cross-sectional study and included Undergraduate Doctor of Physical Therapy Students of IPM&R and RCRS, Peshawar studying in 2nd year to 5th year. The sampling technique was non-probability, convenience sampling. The required sample size was 457, using an online sample size calculator, OpenEpi. The data tool that was used for the data collection was Ten Item Personality Inventory (TIPI). This scale was used to find out the personality traits of the students from both the institutes. The score of this scale is on a seven-point Likert scale where 1 indicates strongly disagree to 7 that indicates strongly agree. R indicates the reverse scoring of this scale. After the approval of proposal from the graduate studies committee RCRS the data was collected. For the approval both the principals of IPM&R and RCRS were contacted, and purpose of the study was explained. Those students were recruited in the studies who met the inclusion criteria; also the participants were told that their data will be kept confidential.

RESULTS

A total of 209 students participated in the study. (Table 1) Total average score of personality traits was calculated such that openness to experience had an average score of 5.38 followed by emotional stability with an average score of 4.61 while agreeableness and conscientiousness were 4.24 and 4.17 respectively and extraversion being the trait with least average score of 4.04. Such that all the personality traits were within the normal ranges. (Figure 1)

Association of personality traits existed between all the variables except that of Institutions. While to find the level of significance between domains of personality inventory and CGPA, Kruskal wallis test was used. P-value for all the domains were >0.05 which means there were no statistical significance between domains of personality inventory and CGPA. In order to find correlation between personality traits and CGPA, we used the Pearson correlation test to investigate the two

correlations. The results showed that openness to experience and extraversion were positively correlated to the CGPA and these students tended to score higher such as (0.13 and 0.22), while

agreeableness, emotional stability and conscientiousness were negatively correlated such that (- 0.001, -0.05 and -0.012).

Table 1: Demographic Data of the Participants

Variable	Categories	Frequency	Percentage
Age	18-20 Years	54	25.9%
	21-23 Years	114	54.5%
	24-26 Years	41	19.6%
Gender	Male	62	29.7%
	Female	147	70.3%
College	RCRS	117	56%
	IPMR	92	44%
Financial status	Satisfactory	176	84.2%
	Non- satisfactory	33	15.8%
Residence	Day-scholar	95	45.5%
	Hostilities	114	54.5%

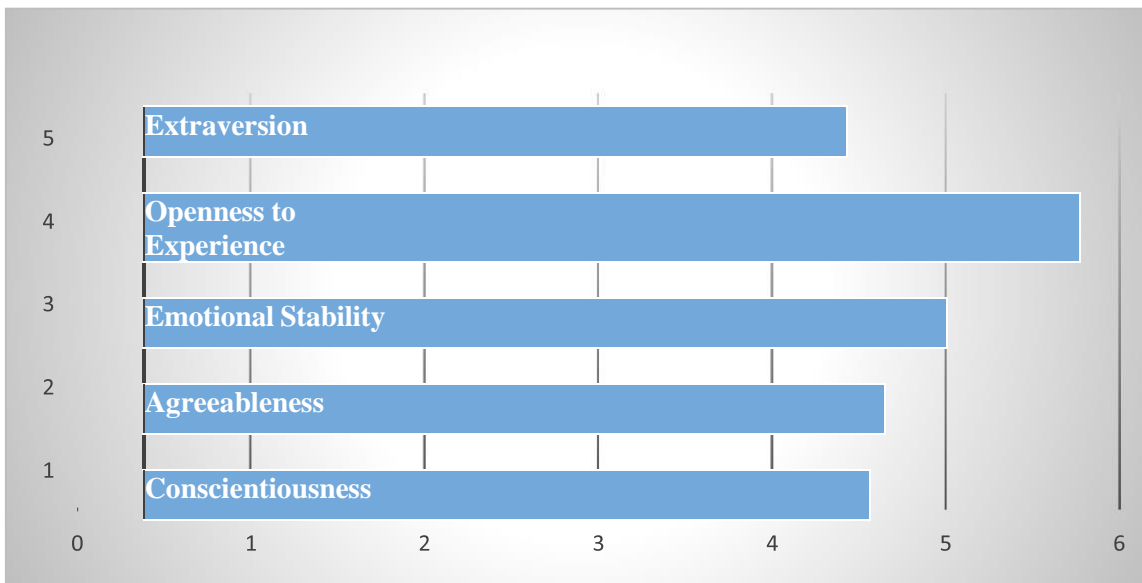


Figure 1: Total average score of personality traits

DISCUSSION

In this present study the total number of sample was 209 students from both the institutions IPMR and RCRS such that five different personality traits were seen in these students among the five personality traits, conscientiousness trait was found normal in, (n= 186) 89% students while high score in (n=5) 2.4% low score in (n= 18) 8.6% while in Ghana (2023), the results of the study illustrated that most of the population, that is the participants they had the personality trait of conscientiousness while the same study also recruited participants from the university of Huzhou and the study also showed that the personality trait that is conscientiousness was present in majority of the students from the university.¹⁰

On the other hand personality trait that is agreeableness it was found to be normal (n=127) 70.3%, high score (n= 28) 3.4% and low score (n= 34) 16.3% while a study that was done in Kenya (2023), the results clearly illustrated that students specifically females as compared to males, the trait of agreeableness was found to have a higher score than normal thus indicating that students had much more empathic behavior towards others.¹¹ Emotional stability that was found to be such that (n=169) participants 80.9% were having normal score followed by (n=35) participants 16.7% having high score and only (n=5) participants 2.4% having low score, on the other hand in (2019) the results of the study showed emotional stability was found to be higher than all the other personality traits hence the findings showed students from Germany during the time period of covid-19 in the first few weeks of the pandemic.¹²

While analyzing Openness to experience, maximum participants having (n= 137) 65.6% were having normal score, followed by low score and high score having (n= 40) 19.1% and (n= 32) 15.3% respectively on the other hand, a study in (2019) among medical students the results of the study clearly illustrated that all the personality traits were found to influence the academic stress of the medical students except for the trait that is openness to experience, openness to experiences among these medical students was found to be less affected by the academic stress, or academic pressure while all the other traits were found to be influenced by stress and resulted in emotional exhaustion, in our study, extraversion domain, maximum participants were having normal score i.e. (n=183) 87.6% followed by high score and low score having frequencies (n=14) 6.7% and (n=12) 5.7% respectively while a study conducted in (2020), it was found that extraversion one of the personality trait it had strong association with the

social media usage of an individual, the results were such that these extravert people were not only found to be social but also these people were found to have much more energy and enthusiastic as compared to those people who are less enthusiastic.¹³

The study has some limitations. The results of this present study cannot be generalized to all undergraduate DPT students and all other medical students of Pakistan. Results may have been affected due to uneven distributions of the participants such that students from second to fifth year were recruited in the present study on the basis of convince. As the present study is a cross sectional study design, considering a longitudinal study design for the same topic for an extended time period will provide better understanding of the variations and stability of personality traits. Cultural and contextual factors can influence the personality traits if the study is conducted to a confined geography so targeting different geographical locations may provide a diverse result for the personality traits in undergraduate doctor of physical therapy students and other medical field students as well.

CONCLUSION

From the present study, we conclude that majority of the undergraduate student's personality traits were within the normal score while association of personality traits with their demographics (age, gender, residence and financial status) clearly showed that agreeableness, extraversion and emotional stability was closely associated with all the demographics except that of Institutions and CGPA. While a positive correlation of CGPA existed with openness to experience and extraversion while a negative correlation with agreeableness, conscientiousness and emotional stability.

REFERENCES

1. Boyce CJ, Wood AM, Powdthavee N. Is personality fixed? Personality changes as much as "variable" economic factors and more strongly predicts changes to life satisfaction. *Social indicators research*. 2013;111:287-305.
2. Kuśniercz C, Rogowska AM, Pavlova I. 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*. 2020;17(16):5729.
3. John R, John R, Rao Z-u-R. The Big Five personality traits and academic performance. *J Law Soc Stud*. 2020;2(1):10-9.

4. Mammadov S. Big Five personality traits and academic performance: A meta-analysis. *Journal of Personality*. 2022;90(2):222-55.
5. Morales Vives F, Camps Ribas E, Dueñas Rada JM. Predicting academic achievement in adolescents: The role of maturity, intelligence and personality. *Psicothema*. 2020.
6. Ahmadi A, Ziapour A, Lebni JY, Mehedi N. Prediction of academic motivation based on variables of personality traits, academic self-efficacy, academic alienation and social support in paramedical students. *Community Health Equity Research & Policy*. 2023;43(2):195-201.
7. Roberts BW, Luo J, Briley DA, Chow PI, Su R, Hill PL. A systematic review of personality trait change through intervention. *Psychological Bulletin*. 2017;143(2):117.
8. Binti Rusbadrol N, Mahmud N, Arif LSM. Association between personality traits and job performance among secondary school teachers. *International Academic Research Journal of Social Science*. 2015;1(2):1-6
9. Di Giunta L, Alessandri G, Gerbino M, Kanacri PL, Zuffiano A, Caprara GV. The determinants of scholastic achievement: The contribution of personality traits, self-esteem, and academic self-efficacy. *Learning and Individual Differences*. 2013;27:102-8.
10. Opoku OG, Adamu A, Daniel O. Relation between students' personality traits and their preferred teaching methods: Students at the university of Ghana and the Huzhou Normal University. *Heliyon*. 2023;9(1).
11. Kinyanjui DW, Sum AM. Personality traits and substance use among college students in Eldoret, Kenya. *PLoS one*. 2023;18(5):e0286160.
12. Asselmann E, Borghans L, Montizaan R, Seegers P. The role of personality in the thoughts, feelings, and behaviors of students in Germany during the first weeks of the COVID-19 pandemic. *PloS one*. 2020;15(11):e0242904.
13. Bowden-Green T, Hinds J, Joinson A. How is extraversion related to social media use? A literature review. *Personality and Individual Differences*. 2020;164:110040.