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Original Research Article

MENTAL HEALTH AND PERSONALITY TRAITS IN MEDICAL STUDENTS AT A TERTIARY CARE HOSPITAL IN JAIPUR

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ABSTRACT

Background: Medical students face unique psychological challenges in demanding clinical training environments. This study investigates how Big Five personality traits modulate their susceptibility to distress.
Methodology: This cross-sectional study was conducted among undergraduate medical students at a Geetanjali Institute of Medical Sciences, Jaipur, Rajasthan (India) utilizing validated psychometric instruments to assess the prevalence of psychological morbidity using the Depression, Anxiety, and Stress Scale and the Big Five Inventory.
Results: High rates of anxiety and depression were found. Neuroticism strongly predicted distress, whereas extraversion, agreeableness, and conscientiousness served as protective buffers.
Conclusion: Findings highlight the need for early psychological screening and tailored support frameworks to protect student well-being.
Keywords: Mental Health, Personality Traits.

INTRODUCTION

Medical students in clinical training environments face unique psychological challenges characterized by high academic pressure and constant exposure to morbidity, which often correlate with distinct personality configuration.[1] In the high-stakes setting of tertiary care hospitals in Jaipur, these stressors are frequently exacerbated by the demanding nature of patient care, necessitating an investigation into how intrinsic traits—such as neuroticism or conscientiousness—modulate individual susceptibility to psychological distress.[2] Given the competitive educational landscape and the intense clinical workload prevalent in Indian medical institutions, students often report low to moderate levels of overall well-being.[3]

Empirical evidence suggests that personality dimensions, particularly those within the Five-Factor Model, significantly mediate the risk of developing depressive symptoms and occupational burnout during clinical rotations.[4,5] For instance, high levels of neuroticism serve as a recognized risk factor for depression and suicidal behavior, whereas elevated extraversion often correlates with improved psychological resilience.[6]

Furthermore, traits such as agreeableness and conscientiousness may function as protective buffers, potentially mitigating the impact of chronic stress on emotional regulation within demanding academic environments.[7] Conversely, students exhibiting high degrees of neuroticism demonstrate increased vulnerability to insomnia and anxiety, which may further exacerbate existing mental health disparities in high-pressure medical training settings.[8,9] Specifically, while conscientiousness is often associated with academic achievement, extreme levels of this trait may paradoxically heighten stress by fostering maladaptive perfectionism and frustration when faced with complex clinical challenges.[10]

MATERIALS AND METHODS

This cross-sectional study was conducted among undergraduate medical students at a Geetanjali

Institute of Medical Sciences, Jaipur, Rajasthan (India) utilizing validated psychometric instruments to assess the prevalence of psychological morbidity. Participants, consisting exclusively of undergraduate medical students, were evaluated using the Depression, Anxiety, and Stress Scale to quantify clinical symptomatology, while the Big Five Inventory was employed to map the specific personality dimensions of the cohort. Data collection relied on a self-report mechanism to ensure consistency across study variables, following methodologies established in comparable psychological assessments of medical trainees.[11] Statistical analyses were performed using Chi-square tests and multivariate analysis of variance to identify significant correlations between these psychological markers and demographic factors across clinical and pre-clinical departments.[12,13]

RESULTS

Our Of the 150 MBBS students surveyed, 126 participated in this study, and preliminary data indicate a high prevalence of depressive and anxious symptomatology, with neuroticism emerging as a robust positive predictor of clinical distress scores. Conversely, dimensions such as extraversion, agreeableness, and conscientiousness exhibited a significant negative correlation with these markers, acting as potential psychological safeguards against the rigorous demands of the clinical environment.[14] Furthermore, emotional stability was found to be inversely related to the severity of anxiety symptoms, suggesting that students with lower baseline neuroticism possess an enhanced capacity for stress regulation.[15]

These findings align with international observations where neuroticism serves as the strongest predictor of psychological distress, while trait-based interventions may offer a viable framework for enhancing student well-being.[16]

Integrating these personality-based insights into institutional support programs could facilitate early screening protocols for vulnerable cohorts before academic or clinical burnout manifests.[17]

DISCUSSION

The observed interplay between personality domains and psychomorbidity underscores the necessity of moving beyond universal wellness initiatives toward personalized intervention strategies that account for individual dispositional vulnerabilities.[18] Tailored psychosocial support programs that prioritize the development of resilience mechanisms could effectively disrupt the trajectory from latent personality-driven vulnerability to clinical anxiety or depressive disorders.[19]

Moreover, recognizing how students regulate these traits in response to the specific stressors of a tertiary care setting may prove critical, as shifts in conscientiousness or neuroticism during training suggest a dynamic adaptability that can be harnessed through targeted counseling.[20] Further exploration into the mediating role of emotional intelligence is warranted, as this capacity may fundamentally alter the relationship between personality traits and the manifestation of psychiatric morbidity.[21]

Building upon these findings, future institutional policies should prioritize longitudinal monitoring to identify students at high risk for burnout, particularly during the transition from theoretical education to the more intensive clinical training phase.[22,23]

Such preemptive interventions not only mitigate the risk of maladaptive stress responses but also bolster the foundational competencies required for sustained professional performance in high-pressure healthcare environments.[23,24]

Furthermore, incorporating mindfulness-based training and self-awareness exercises could serve as an essential mechanism for students to foster psychological growth and proactively strengthen their coping capacity against the inherent demands of medical education.[25] Implementing this data-driven model into student wellness initiatives enables administrators to devise specific interventions tailored to distinct dispositional profiles, thereby optimizing the deployment of institutional resources.[26]

CONCLUSION

The findings of this study reinforce the critical need for integrating psychological screening with institutional support frameworks to address the unique mental health challenges faced by medical trainees in tertiary care environments. Future efforts should focus on long-term initiatives that dismantle mental health-related stigma, ensuring that students feel empowered to seek professional assistance without fear of academic or social repercussions.

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