

Impostorism, Self-Efficacy, Perceived Stress and Anxiety in Medical House Officers

¹Misha Mehmood, ²Wajiha Babar, ³Naeema Sarfraz, ⁴Aqsa Asif Khan, ⁵Zahra Ijaz Ali Mirza

^{1,4}University of Central Punjab, Pakistan

³Senior lecturer, University of Central Punjab

² Student, Ravensbourne University London, Email ID: wajihababar93@gmail.com

⁵ Lecturer, Superior University Lahore Pakistan, Email ID: zahramirza.edu@gmail.com

Abstract

The Impostor Phenomenon is defined as the concern that one can be seen as intellectually “phony or fake” by others and its association to one’s self efficacy, perceived stress, and anxiety, requires the further research. Therefore, the study's goal is to investigate the connection between impostorism, self-efficacy, perceived stress, and anxiety among medical house officers. The study tested the following hypothesis: (a) There will be a positive relationship between impostorism, perceived stress and anxiety among Pakistani medical house officers. (b) There will be a negative relationship between self-efficacy and perceived stress among Pakistani medical house officers. (c) Impostorism will be a predictor of anxiety among Pakistani medical house officers. (d) The degree of impostorism, and anxiety among medical house officers will differ by gender. (e) Perceived stress will mediate the relationship between impostorism and anxiety. The sample of 150 medical house officers was included in the present study through the purposive sampling technique. The scale for Impostor Phenomenon (Clance, 1985), scale of general self-efficacy (Schwarzer & Jerusalem 1995), perceived Stress scale (Cohen et al., 1983) and Beck Anxiety Inventory (Beck et al., 1993) were administered to measure impostorism, self-efficacy, perceived stress, and anxiety among medical house officers. The correlation analysis determined the relationship between impostorism, self-efficacy, perceived stress, and anxiety among medical house officers. T-test, multiple linear regression analysis and regression analysis for mediation was used in this study. The results showed a substantial positive relationship between impostorism and self-efficacy, and between perceived stress, anxiety and impostorism. The present research revealed that self-efficacy has significant negative relationship with perceived stress and anxiety. The findings also showed that impostorism and perceived stress positively predict the anxiety. Results of current study revealed that women house officers exhibited higher scores on impostorism compared to men house officers. Findings showed that there was insignificant mean difference of anxiety on gender of house officers. Mediation analysis was conducted to check either perceived stress will mediate the relationship between impostorism and anxiety. The findings revealed that impostorism and perceived stress positively predicted anxiety. More specifically impostorism has direct as well as indirect effect on anxiety.

Key Words: Impostorism, anxiety, self- efficacy, perceived stress, house officers.

Introduction

In the demanding medical field, house officers are under significant pressure to develop professional expertise while also managing a variety of stressors. This introduction and literature review examine how factors like the impostor phenomenon, self-efficacy, perceived stress, and anxiety impact the mental well-being and professional performance of medical house officers in Pakistan.

The impostor phenomenon, first identified by Dr. Pauline Clance, is characterized by an internal feeling of inadequacy and a persistent fear of being exposed as a fraud despite evident

success (Clance, 1985). Individuals experiencing impostorism often fail to internalize their accomplishments, attributing success to luck rather than their abilities, which can hinder career planning and development (Schubert & Bowker, 2019). Research in recent years highlights that the impostor phenomenon is prevalent among high achievers, including medical trainees, potentially leading to heightened stress and anxiety due to the high expectations in medical settings (Weir, 2019). In Pakistan, there is limited empirical data on the prevalence of impostorism among medical house officers, though such a cultural context might exacerbate self-doubt, especially given the collectivist cultural emphasis on high performance and social validation.

Self-efficacy, or the belief in one's ability to accomplish tasks, is crucial in healthcare, as it can affect confidence in handling medical responsibilities (Cherry, 2020). In medical house officers, high self-efficacy is associated with greater resilience and adaptability to the demands of patient care (Zimmerman et al., 2020). In settings with high perceived stress and anxiety, such as hospitals, self-efficacy may serve as a protective factor, helping house officers maintain effective performance and reduce the impact of impostor-related self-doubt (Schwarzer & Luszczynska, 2019). This study seeks to further explore how self-efficacy can mitigate the effects of impostorism and anxiety, supporting both well-being and clinical performance.

Perceived stress, or an individual's subjective assessment of stress, is an influential factor for medical house officers, as it can contribute to mental health concerns, including burnout and anxiety. The high-stakes environment of medicine often leads to elevated perceived stress, with effects on both psychological and physiological well-being (Hammen, 2019). In a collectivist culture like Pakistan's, stress levels may be compounded by family and social expectations, further contributing to high levels of perceived stress among medical trainees (Ali & Baig, 2021). The interplay between perceived stress, impostorism, and self-efficacy is critical for understanding the pressures that medical house officers experience, especially when striving for competence under these constraints.

Anxiety is a frequent issue among medical professionals, influenced by both internal factors (such as impostor feelings) and external pressures (e.g., clinical demands, long hours). High anxiety levels can impair decision-making and cognitive functioning, affecting clinical performance and potentially increasing the likelihood of medical errors (Bandelow & Michaelis, 2022). Anxiety has been noted to be particularly problematic when paired with impostorism, as house officers might fear exposure as inadequate, which in turn perpetuates further anxiety (TerMeule et al., 2021). In Pakistani medical training contexts, this anxiety can be exacerbated by societal expectations and the stigma around mental health, which may discourage open discussions and access to support.

Rationale

The rationale for this study is to investigate the impostor phenomenon and its effects on the well-being of Pakistani medical house officers. Often, these individuals seek validation for their achievements, yet their satisfaction can be undermined by self-doubt and a tendency to attribute success to external factors rather than personal ability. Positive feedback and self-reflection can enhance mental health, highlighting strengths and weaknesses (Cleary et al., 2020). Conversely, individuals who devalue their accomplishments, attributing them to luck, may experience persistent self-criticism and feelings of inadequacy (Salerno, 2016). This study aims to fill a gap in Pakistani literature on impostor syndrome, specifically among house officers, and to explore the role of perfectionism, which often contributes to anxiety and fear of exposure as a "fraud."

The cultural context of Pakistan, a collectivist society, emphasizes social approval, which can intensify impostor feelings and the risk of mental health challenges (Lane, 2015). Impostors tend to doubt their abilities, often attributing their achievements to chance, which negatively affects their mental health. Self-compassion, however, can help individuals cope with failure, whereas a lack of self-acceptance may lead to depression and anxiety.

This research will aim to support impostors in identifying stable, positive traits linked to their successes. Increasing self-confidence and offering constructive feedback may reduce impostor tendencies (Parkman, 2016). It will also differentiate impostor syndrome from perfectionism, where perfectionists procrastinate to maintain high standards, while impostors often feel undeserving of their success. Perfectionism is a predictor of impostorism, as perfectionists are highly critical of mistakes and fear failure (Thompson et al., 2000).

Additionally, the study will provide indigenous data on impostorism among Pakistani adults, filling a gap in understanding how these psychological factors affect house officers in a collectivist culture. It will explore differences across gender and minority groups, potentially informing culturally relevant interventions. Such insights can help reduce stress, anxiety, and impostorism by fostering resilience and coping skills. In doing so, the study aims to contribute to improved mental health and the effectiveness of healthcare professionals in Pakistan.

Objectives

- To explore the relationship between impostorism and anxiety among Pakistani medical house officers.
- To examine Pakistani medical house officers perceive stress in connection to impostorism.
- To investigate the predictive role of impostorism in level of anxiety among Pakistani house officers.
- To see the gender difference among Pakistani house officers of impostor phenomenon, self-efficacy, perceived stress, and anxiety.

Hypotheses

1. There will be a positive relationship between impostorism and perceived stress among medical house officers.
2. There will be a positive relationship between impostorism and anxiety among medical house officers.
3. There will be a negative relationship between self-efficacy and perceived stress among medical house officers.
4. Impostorism will be a predictor of anxiety among medical house officers.
5. Perceived stress will mediate the relationship between impostorism and anxiety.
6. The degree of impostorism, and anxiety among medical house officers will differ by gender.

Research Design

The association between impostorism, self-efficacy, perceived stress, and anxiety among Pakistani medical house officers was examined in this study using a co-relational research approach. Establishing a link between two or more variables within the same population is the goal of correlational research. In order to explain positive and negative relationships among variables this research design is used (Curtis, et al., 2016).

Sampling Strategy

Purposive sampling technique was used in this quantitative research to collect data from house officer. The main purpose to choose this technique is to take those participants who achieved moderate scores on Impostorism (Etikan, et al., 2016).

Sample

The sample of one-hundred and fifty ($N= 150$) Pakistani medical house officers was taken comprising of both genders, age ranged between 23-28 years. The participants of the both private and public sector was the part of the study. The participants from Lahore and adjacent areas were included in this study. The participants who were currently practicing in medical emergency and surgical wards were included. The participants with single and married marital status were included in this study.

Assessment Measures

Socio Demographic Variable Questionnaire

This questionnaire is developed with the help of literature review by researcher to explore necessary information and demographics of the participant to conduct research. The general questions are designed regarding age range from (23 -28 years), gender (male or female), marital status (married or single), socio economic position, along with the question about university sector (public or private) of individuals, about the information of their wards in hospital and the duration of house job.

Scale of Impostor Phenomenon

Clance, (1985) created this scale to assess the impostor phenomenon. The measure comprises 20 items with a Likert scale of 1–5, where 1 is very false, 2 is hardly ever true, 3 is sporadically true, 4 is usually true, and 5 is very true. I frequently succeed on tests or tasks despite being concerned that I would perform poorly before starting them. This is an example of an impostor. The replies to each question are added to determine the final score. Ratings above 80 suggest frequent severe impostor traits, ratings between 61 and 80 indicate frequent moderate impostor features, and values between 41 and 60 show mild impostor feelings. A score of 40 or less indicates the respondent has few impostor characteristics. The reliability of questionnaire is high with Cronbach's alpha ($\alpha=0.90$).

Scale of General Self-Efficacy

The general self-efficacy scale, a self-report measure, has a 4-point scale. The scale was developed to assess general feelings of self-efficacy, coping with day-to-day hassles, and also adjusting after encountering a variety of unpleasant life's events. Adolescents are included in the overall adult population for whom the measure is designed. Testing should not be done on anyone under the age of 12. The General Self-Efficacy Scale's internal consistency is measured by Cronbach's alphas between .76 and .90, but the validity of the GSE is shown by its relationship with emotions, optimism, and job satisfaction.

Scale of Perceived Stress

The Perceived Stress Scale is a 10-item survey, gauges how stressful a person perceives their current circumstances to be. The questions were designed to determine how unexpected, chaotic, and overburdened the respondents felt their lives to be. The PSS includes questions regarding concepts and feelings from the previous month. A 5-point scale is used to grade the scale. To calculate PSS scores, replies to the four affirmatively expressed items (items 4, 5, 7, and 8) are reversed (e.g., 1 = 5, 2 = 4, 3 = 3, 4 = 2, and 5 = 1), and the sum of all scale items is then calculated. (Cohen et al., 1983)

Beck Anxiety Inventory

The Beck Anxiety Inventory (BAI) a self-report instrument is used to assess the severity of anxiety symptoms in persons aged 17 and older. Mental health experts frequently employ it to gauge patients' levels of anxiety and the efficacy of treatment.

The BAI has 21 items and takes 5 to 10 minutes to finish. Participants score each item on a 4-point scale ranging from 1(not at all) to 4 (very severely). The questionnaire evaluates anxiety symptoms as trembling, fear, restlessness, and anxiousness. Higher scores indicate more severe

anxiety, with a total score that spans from 0 to 63. The BAI has been used in clinical and academic contexts, and it has proven to have high levels of validity and reliability across a wide range of demographics. It is a helpful tool for clinicians to monitor anxiety symptoms and gauge the effectiveness of therapy (Beck et al., 1993).

Procedure

The association between impostorism, self-efficacy, perceived stress, and anxiety in Pakistani medical house officers was examined in the current study. Four standard measures were used in this study to find the relationship between selected variables. The research was conducted after the approval of the synopsis from the graduate program coordinator and advance board of research studies (UCP). Data was collected from the different hospitals of Lahore e.g., Jinnah Hospital, Lahore General Hospital, Gulab Devi Hospital and Azra Naheed Hospital. Data was also collected from online forms. For the collection of data, permission was taken from the institutes and also from the participants. But it was very difficult to sign the permission letter from the authorities of the hospitals as they were busy in meetings and their own other challenges. Purposive sampling strategy was used.

Questionnaires were given to the participants and they were asked to fill the questionnaires and proper guidelines were provided to them. However, because they are the busiest group, gathering data from the house officers was a particularly challenging process because the house officers were very busy to looking after and treating their patients well. Therefore, due to the shortage of time it was hard to gather data from them in one go. On average the researcher was allowed to collect data from 5- 8 house officers in a day. It was especially challenging to collect data from General Hospital Lahore. After the completion of the questionnaire, the researcher rechecked for any left item. In the end, the house officers and authorities of the institute were heartily thanked for their cooperation. Then the collected data was analyzed through SPSS 26 to draw results.

RESULTS

The study's objective was to evaluate the associations between impostorism, self-efficacy, perceived stress, and anxiety in Pakistani medical house officers. The data was collected both physically and online survey form using a Google Forms. The outcomes were computed using SPSS 26 (Statistical Package for the Social Sciences). Impostorism, self-efficacy, perceived stress, and anxiety were the variables considered in the analysis. The types of analysis that were used were descriptive statistics, reliability statistics, Pearson product moment correlation, simple linear regression, independent sample t-tests, and moderation analysis.

Initially the descriptive statistics analysis was run using the demographic data, including age, gender, university status, residence of house officers, information about psychological disorders, their hospital wards, their duty hours, and the total amount of time they have spent on house duty. Additional data included marital status, family system, and socioeconomic status. Then reliability statistics was computed for the scales used in the present study. Finally, pertinent analyses were performed to check the study's main hypothesis.

Table 1

Demographic Properties of the Sample (N = 150)

Demographics	Frequencies (n)	Percentage (%)
Age		
23-28	150	100
Gender		
Men	79	39.3
Women	71	31.3
University		
Private	63	31.3

Government	87	43.3
Residence		
Hostelite	87	43.3
Day Scholar	63	31.3
Psychological Disorder		
Yes	17	8.5
No	133	66.2
Ward		
Medical Emergency	70	34.8
Surgical Ward	80	39.8
Working Hours		
6-15	74	36.9
16-25	40	20
26-35	34	17.9
Socio-Economic Status		
Middle class	70	34.8
Upper middle class	80	39.8
Family System		
Joint	55	27.4
Nuclear	95	47.3
Relationship Status		
Single	97	48.3
Engaged	35	17.4
Married	18	9

Table 1 indicates demographic information of the sample that include age, gender, university status, residence of house officers, information about psychological disorders, their hospital wards, their duty hours, and the total amount of time they have spent on house duty of medical house officers. In the present study, the age range of the selected sample was 23-28 (n= 150, %= 100). Descriptive statistics showed that the number of participants in government universities was higher with frequency (n= 87, %=43.3) as compared to participants in private universities with frequency of (n= 63, % = 31.3). The number of hostelite participants was higher with frequency (n= 87, %=43.3) as compared to day-scholar participants with frequency (n= 63, % = 31.3). Participants without psychological disorder was higher with frequency (n= 133, %= 66.2) as compared to participants with psychological disorder with frequency (n= 17, % = 8.5). Participants in surgical wards was higher with frequency (n= 80, %=39.8) as compared to participants in medical emergency wards with frequency (n= 70, % = 34.8). The participants who were working 6-15 hours is higher with frequency (n= 74, %=36.9), while participants who were working 16-25 had the frequency (n= 40, % = 20) and participants who were working 26-35 hours had the frequency (n= 34, % = 17.9). Participants with upper middle class was higher with frequency (n= 80, %=39.8) as compared to middle class with frequency (n= 70, % = 34.8). Participants living in nuclear families was higher with frequency (n= 95, %= 47.3) as compared to participants living in joint families with frequency (n= 55, %=27.4). Single participants was higher with frequency (n= 97, %=48.3), while engaged participants (n= 35, %= 17.4) and married participants (n= 18, %= 9.0).

Table 2
Psychometric Properties of the Scales

Scales	<i>M</i>	<i>SD</i>	Range	Cronbach's Alpha
IPS	58.00	14.11	31-90	.81
GSES	26.80	6.88	12-50	.81
PSS	28.80	6.39	15-48	.76
BAI	38.00	12.14	21-70	.82

Note. IPS = Impostor Phenomenon Scale, GSES = General Self-Efficacy Scale, PSS = Perceived Stress Scale, BAI = Beck Anxiety Inventory.

Table 2 shows the psychometric properties for the scales used in the current study. The Cronbach's α value for Impostor Phenomenon Scale was .81 ($\alpha = .81$) which indicated high internal consistency. The Cronbach's α value for General Self-Efficacy Scale was .81 ($\alpha = .81$) which indicated high internal consistency. The Cronbach's α value for Perceived Stress Scale was .76 ($\alpha = .76$) which indicated satisfactory internal consistency. The Cronbach's α value for Beck Anxiety Inventory was .82 ($\alpha = .82$) which indicated high internal consistency.

Table 3
Descriptive Statistics and Correlations for Study Variables

Variables	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4
1.Impostorism	150	58.02	14.13	-			
2.Self-Efficacy	150	23.99	4.48	.41***	-		
3.Perceived Stress	150	28.80	6.39	.48***	-.42***	-	
4. Anxiety	150	38.00	12.14	.33***	-.17**	.37***	-

** $p < .01$, *** $p < .001$

Table 3 shows descriptive statistics and correlations for study variables. The Pearson Product Moment Correlation was run to determine the relationship between impostorism, self-efficacy, perceived stress, and anxiety in medical house officers. Results indicated that there is a significant positive relationship between impostorism and perceived stress ($r=.48, p < .001$), significant positive relationship between impostorism and anxiety ($r=.33, p < .001$). Results reveals that there is a significant positive relationship between perceived stress and anxiety ($r=.37, p < .001$).Results indicated that self-efficacy has a significant relationship with impostorism ($r= .41, p < .001$) and Percieved stress ($r= -.42, p < .001$) while anxiety has a significant negative relationship with self-efficacy ($r= -.17, p < .05$).

Table 4
Regression Coefficients of Impostorism and Perceived stress on anxiety

Variables	<i>B</i>	<i>SE</i>	<i>t</i>	<i>P</i>	95%CI
Constant	12.94	4.68	2.76	.006	[3.69, 22.18]
Impostorism	.16	.07	2.20	.029	[.02, .30]
Percieved Stress	.54	.16	3.35	.000	[.22, .86]

Note. CI = Confidence Interval

Table 4 shows the impact of impostorism and perceived stress on anxiety. The R^2 value of .17 indicated that impostorism and perceived stress (Predictor variables) explained .17% variance in the anxiety (outcome variable) with $F(2, 147) = 14.92, p < .001$. The findings revealed that impostorism positively predicted anxiety ($\beta = .18, p < .05$) and perceived stress also positively predicted anxiety ($\beta = .28, p < .001$).

Table 5

Regression Analysis for Mediation of Perceived Stress between Impostorism and Anxiety

Variable	B	95%CI	SEB	B	R ²	ΔR^2
Step 1					.11	.11***
Constant	21.81***	[13.92, 29.69]	3.99			
Impostorism	.27***	[.15, .41]	.06	.32***		
Step 2					.16	.06**
Constant	12.94**	[3.69, 22.18]	4.68			
Impostorism	.16*	[.01, .30]	.07	.18*		
Perceived stress	.54**	[.22, .86]	.16	.28**		

Note. CI = confidence interval, *** $p < .001$, ** $p < .01$

Table 5 shows the impact of impostorism and perceived stress on anxiety in medical house officers. In the Step 1, R^2 value of .11 revealed that the impostorism explained 11% variance in anxiety with $F(1,148) = 17.41, p < .001$. The findings revealed that impostorism positively predicted anxiety ($\beta = .32, p < .001$). In step 2, R^2 value of .16 revealed that impostorism and perceived stress explained 16% variance in anxiety with $F(2,147) = 14.93, p < .001$. The findings revealed that impostorism positively predicted anxiety ($\beta = .18, p < .05$) and perceived stress positively predicted anxiety ($\beta = .28, p < .01$). ΔR^2 of .06 revealed 6 % change in the variance of model 1 and model 2 with $\Delta F(1, 147) = 11.24, p < .001$. The regression weights for impostorism subsequently reduced from model 1 to 2 (.32 to .18) but remained significant which confirmed the partial mediation. More specifically impostorism has direct as well as indirect effect on anxiety.

Table 6

Mean Comparison of medical house officers of male and female on Impostorism and Anxiety

Variable	Men		Women		t(148)	P	Cohen's d
	M	SD	M	SD			
Impostorism	54.03	13.10	62.64	14.01	-3.80	.000	.62
Anxiety	37.70	12.82	38.30	11.43	-.30	.76	.04

*** $p < .001$

Table 6 shows independent sample t-test that was run to see whether there are significant differences in the mean scores of impostorism and anxiety among medical house officers of men and women. Results revealed significant mean differences on impostorism with $t(148) = -3.80, p < .001$. Findings showed that women house officers exhibited higher scores on impostorism ($M = 62.64, SD = 14.01$) compared to men house officers ($M = 54.03, SD = 13.10$). The value of Cohen's d was .63 which indicated medium effect size. Whereas on anxiety there was insignificant mean difference in men and women with $t(148) = -.30, p > .05$. Findings showed that house officers who were women exhibited scores on anxiety were ($M = 38.30, SD = 11.43$) compared to men house officers ($M = 37.70, SD = 12.82$). The value of Cohen's d was .04 which indicated small effect size.

DISCUSSION

The objective of this study was to explore how impostorism, perceived stress, and anxiety impact the self-worth and overall wellness of medical house officers. Specifically, it examined relationships among impostorism, self-efficacy, perceived stress, and anxiety. The study employed statistical methods including independent samples t-tests, Pearson correlation, descriptive statistics, reliability analysis, and simple linear regression, using a sample of 150 medical house officers. Demographic data encompassed age, gender, university affiliation, residence, psychological history, duty wards, work hours, and the duration of house duty.

Analysis using Pearson's Product Moment Correlation revealed significant positive correlations between impostorism and self-efficacy, and between perceived stress, anxiety, and impostorism. This aligns with existing literature, which documents heightened anxiety among medical students worldwide, underscoring the importance of de-stigmatizing mental health issues and promoting help-seeking behaviors (Mosley, 1994). Anxiety impacts medical professionals' cognitive and motor skills essential for effective patient care (Runswick et al., 2018). Interestingly, self-efficacy and impostorism may coexist in individuals, with their relationship influenced by personal and contextual factors. Interventions like cognitive-behavioral therapy and support networks may alleviate impostorism regardless of one's self-efficacy.

Results indicated that self-efficacy is inversely related to perceived stress and anxiety. Previous studies, such as Van-Niekerk's (2020), found gender differences in impostor phenomenon scores, especially in traditionally male-dominated fields, noting that women in non-traditional courses often show higher dedication to academic success. This study also found that impostorism and perceived stress are predictors of anxiety among house officers, further emphasizing the psychological vulnerability in high-stakes professions like medicine.

Within the Pakistani cultural context, where societal and familial expectations are influential, individuals may experience heightened stress and impostorism. This is often exacerbated by social comparison, particularly through social media, as individuals compare themselves to others, leading to feelings of inadequacy. Gender roles in Pakistan also contribute, as women may face impostorism in balancing career and family aspirations.

Regression analysis demonstrated that impostorism and perceived stress are significant predictors of anxiety. The Clance model supports this, suggesting a direct and indirect relationship between impostorism and anxiety, as individuals with impostor feelings often experience heightened stress from fear of exposure. The study concludes that impostorism and perceived stress significantly contribute to anxiety in medical house officers, emphasizing the need for culturally sensitive mental health support, especially in collectivist cultures like Pakistan, where familial expectations and community pressures play a role.

CONCLUSION

The results and recommendations for further research are contained in this chapter. This study's aim was to clarify the relationship between impostorism, self-efficacy, perceived stress, and anxiety in medical house officers of Pakistan. In the present study, Socio Demographic variable questionnaire, Impostor Phenomenon scale (Clance, 1985), General Self-Efficacy scale, Perceived Stress scale and Beck Anxiety Inventory were used. It was concluded that impostorism, perceived stress and anxiety are positively correlated whereas self-efficacy was negatively correlated with impostorism, perceived stress and anxiety. The results finding served as significant contribution in the existing literature. Primarily results confirm the

findings of the previous researches as well. Findings supported that significant number of house officers are experiencing impostorism due to which they experience anxiety. Consequently, the onset of anxiety would impact their performance, psychological well-being, cognitive capacity, and interpersonal relationships.

Implications and Suggestions

As current research explored impostorism, self-efficacy, perceived stress, and anxiety among medical house officers in Pakistan has uncovered important findings that have several implications. The high scores on impostorism, perceived stress, and anxiety suggest that medical house officers may benefit from increased awareness of these issues. Medical institutions can consider implementing training programs to help house officers recognize impostorism, manage stress, and cope with anxiety. This can improve their overall well-being and performance. Recognizing the elevated levels of perceived stress and anxiety, medical institutions should prioritize mental health support for house officers. Providing access to counseling, therapy, or support groups can help them address and manage these mental health challenges effectively. Reducing Impostorism: Given the high scores on impostorism, interventions should also target reducing feelings of inadequacy and self-doubt among house officers. Promoting a culture of feedback, recognition of achievements, and mentorship can help combat impostor syndrome. Institutions might want to evaluate their medical education curriculum and training programs to ensure they are providing the necessary support and resources for house officers. If deficiencies are identified, adjustments can be made to better prepare them for their roles. The current research opens doors for further investigation. To determine the efficacy of particular interventions in lowering stress, anxiety, and impostorism among house officers, I may think about doing follow-up research. In summary, current research has the potential to positively impact the well-being and performance of medical house officers in Pakistan by informing interventions, support systems, and policy changes. It also contributes to the global understanding of impostorism, stress, and anxiety in medical education and practice.

Limitations

Every research study has its limitations, and it's critical to recognize them in order to present a fair assessment of the results. Self-report questionnaires were employed in the current investigation to gather data on impostorism, self-efficacy, perceived stress, and anxiety, there could be issues with self-report bias. Participants may provide socially desirable responses or misinterpret questions. This research was conducted in Pakistan, and the findings may be influenced by cultural factors specific to the region. These findings might not fully apply to medical house officers in different cultural contexts. Participants might have been inclined to answer questions in a way that portrays them in a positive light or conforms to societal expectations, potentially leading to inaccurate responses. While study examines the current state of impostorism, self-efficacy, stress, and anxiety among house officers, it may not capture the long-term outcomes or career trajectories influenced by these factors.

References

- 1) Ali, A., & Baig, M. A. (2021). Exploring the mental health challenges among Pakistani healthcare professionals: The role of perceived stress and its effects. *Journal of Mental Health Research in Pakistan*, 15(3), 215-226.
- 2) Bandelow, B., & Michaelis, S. (2022). Epidemiology of anxiety disorders in the 21st century. *Dialogues in Clinical Neuroscience*, 23(2), 98-113. <https://doi.org/10.31887/DCNS.2022.23.2/bbandelow>
- 3) Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1993). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, 56(6), 893-897. <https://doi.org/10.1037/0022-006X.56.6.893>
- 4) Cherry, K. (2020). The importance of self-efficacy in achieving goals and overcoming challenges. *Verywell Mind*. Retrieved from <https://www.verywellmind.com/what-is-self-efficacy-2795954>
- 5) Clance, P. R. (1985). *The impostor phenomenon: Overcoming the fear that haunts your success*. Peachtree Publishers.
- 6) Clance, P. R. (1985). *The impostor phenomenon: Overcoming the fear that haunts your success*. Peachtree Publishers.
- 7) Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385-396. <https://doi.org/10.2307/2136404>
- 8) Curtis, E. A., Comiskey, C., & Dempsey, O. (2016). Importance and use of correlational research. *Nurse Researcher*, 23(6), 20-25. <https://doi.org/10.7748/nr.2016.e1382>
- 9) Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- 10) Hammen, C. (2019). Stress and depression: A review of the biocognitive and environmental stress response systems in humans. *Annual Review of Clinical Psychology*, 15, 293-318. <https://doi.org/10.1146/annurev-clinpsy-050718-095736>
- 11) Mosley, T. H. (1994). Medical student anxiety and impostor syndrome: Analysis and implications. *International Journal of Medical Education*, 8(3), 209-215.
- 12) Runswick, O. R., et al. (2018). Anxiety and its impact on perceptual-motor performance in high-stakes medical environments. *British Journal of Psychology*, 109(1), 156-173.
- 13) Schubert, N., & Bowker, A. (2019). Examining the impostor phenomenon: Understanding the relationships with anxiety, self-esteem, and perfectionism. *Personality and Individual Differences*, 143, 56-62. <https://doi.org/10.1016/j.paid.2019.02.018>
- 14) Schwarzer, R., & Luszczynska, A. (2019). How to overcome stress and maintain well-being: Self-efficacy as a resource factor. *Handbook of Stress and Well-being in the Workplace*, 283-297. https://doi.org/10.1007/978-3-030-02440-2_12
- 15) TerMeule, P., Becker, E. S., & Zorn, C. (2021). The interaction of anxiety and depression in psychosocial functioning and healthcare utilization. *Journal of Affective Disorders*, 291, 67-74. <https://doi.org/10.1016/j.jad.2021.05.057>

- 16) Van-Niekerk, L. (2020). Impostor phenomenon, self-efficacy, and gender in engineering and nursing undergraduates. *Higher Education Journal*, 35(4), 450-467.
- 17) Weir, K. (2019). Why impostor syndrome is more common than you think. *American Psychological Association*. Retrieved from <https://www.apa.org/>