The Relationship Between Imposter Syndrome, Household Income, and Level of Education

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Abstract

Background: Imposter syndrome has been documented in the literature as a challenge across all professional fields, for men and women. Imposter syndrome is defined as a state of high-performing individuals attributing achievements to luck and contingency rather than skill and merit. Those experiencing imposter syndrome often live in fear of being exposed as a fraud or losing credibility.

Methods: The current study applies the Literature Matrix Method by Judith Garrad to aggregate and synthesize literature for three factors: Imposter Syndrome, household income, and educational level. Further, inclusion criteria for search terms included publication year (2019-2023), document type (Peer-reviewed), and language (English). Database searches included ProQuest Central, PubMed, and Google Scholar.

Results: Initial searches were screened for inclusion criteria with only full-text articles selected for review. Several articles were excluded due to insufficient relevance to the terms: imposter syndrome AND income OR educational level. The final pool of articles was added to the Literature Matrix and patterns and themes identified to identify potential correlations between factors.

Conclusion: Results indicate further research is needed to understand the correlation between education, household income, and imposter syndrome. Future research can provide insight into how to provide professional development and interventions to mitigate this concerning challenge among working professionals.

Introduction

The term known as imposter syndrome was initially coined by Dr. Pauline Clance. Imposter syndrome is defined as a state of high-performing individuals attributing achievements to luck and contingency rather than skill and merit. Imposter syndrome affects both men and women in different fields and levels. It has implications for mental health, career satisfaction, and advancement. During her findings in therapeutic settings, there were observations that those grappling with imposter syndrome often experience self-adequacy, fearing that their achievements are undeserved and dreading the exposure as fraud.[1] Imposter syndrome has been extensively researched, but its association with socioeconomic factors, for instance, household income and educational level is undiscovered. Studying these interrelations is important for creating effective actions, interventions, and reinforcement mechanisms for people affected by imposter syndrome.[2] In this project, our objective is to research existing articles on imposter syndrome, household income, and educational level, harnessing the Literature Matrix Method by Judith Garrad to aggregate and integrate relevant research findings. By reviewing the patterns and the interrelationships, we pursue identifying potential correlations between imposter syndrome and, household income, and educational level.[3] Through aggregations and synthesizing relevant research findings, we aim to unravel the relationships between imposter syndrome, household income, and educational level whilst accentuating the need for further research in this sphere of intersection. Ultimately, a profound insight of these relationships can enlighten the development of effective actions, interventions, and reinforcement mechanisms for people affected by imposter syndrome and support professional well-being.[4]

Methods

The current study applies the Literature Matrix Method by Judith Garrad to aggregate and synthesize literature for three factors: Imposter Syndrome, household income, and educational level. Further, inclusion criteria for search terms included publication year (2019-2023), document type (Peer-reviewed), and language (English). Database searches included ProQuest Central, PubMed, and Google Scholar. Studies were deemed relevant based on meeting the inclusion criteria. The articles that met the inclusion criteria were added to a literature matrix. The literature matrix was organized based on these headlines, theoretical/conceptual framework, research question(s)/ hypotheses, methodology, analysis and results, conclusions, implications for future research, and implications for practice. Quality assessment was performed by evaluating factors such as the study design sample size and the method used for data collection. The selected studies that met the inclusion criteria were organized into a structured format and similar themes and patterns were identified.

Literature Review Matrix Template

Author/ Date	Theoretical/ Conceptual Framework	Research Question(s)/ Hypotheses	Methodology	Analysis & Results	Conclusions	Implications for Future research	Implications For practice
Alsaleem, Lara; Alyousef, Nada; Alkaff, Zaina; Alzaid, Lujane; Alotaibi, Reema; Shaik, Shaffi Ahamed (2021)	Self-efficacy theory	What is the prevalence of low self-esteem and positive imposter syndrome among medical students at King Saud University.? What other variables are associated with imposter syndrome and low self-esteem?	The study is a quantitative analytical cross-sectional study, the participants were medical students from KSU and a sample size of 502, self-administered questionnaire	The prevalence of low self-esteem and imposter syndrome was 23.6% and 42.1% respectively and a positive correlation between both variables. There is also a significant association between self-esteem and gender, mother's education, and GPA.	This study concludes that low self-esteem and positive imposter syndrome are prevalent in medical students of KSU University and more should be done to improve the educational system to help these students	Future research may include psychological disorders in the survey as psychological problems can be of significance to the issue	Counseling services should be set up to help students deal with these issues. Interventions set to promote self-esteem and improve self-efficacy should be implemented among medical campuses.
Afran Ahmed, Aarushi Kaushal,Tatyana Cruz, Yusuke Kobuse, Kristen Wang (2020)	Imposter syndrome among BIPOC, Clance and Imes (1978) conceptualization of imposter syndrome	The correlation between the presence of imposter syndrome and authoritarian parenting among BIPOC parents. Is there a correlation between imposter syndrome and socioeconomic status	A survey was conducted among 53 participants to find a correlation between imposter syndrome and authoritarian parenting style. Sample sizes for specific groups were not large enough to draw conclusions	The survey showed relatively similar average scores across groups, and the sample size was too small to draw up plausible conclusions.	The survey provided some information but not enough to determine if race was the sole reason for higher rates of imposter syndrome, limitations in sample size hindered the results.	Future research should try to replicate this study but this time with a higher sample size and focus more on other factors contributing to imposter syndrome.	counselors working with BIPOC individuals should be aware of the potential impact that authoritarian parenting might have on the rate of Imposter syndrome among these individuals.
Shinawatra P, Kasirawat C, Khunanon P, et al. (2023)	Imposter syndrome is common in medical students. Research is needed to study the prevalence and associated factors of imposter syndrome because this psychological state causes people to mistrust their skills and worry extensively about being exposed as fraudsters.	The researchers aimed to assess the prevalence and associated factors of imposter syndrome among medical students in their clinical year of training at Chiang Mai University, Thailand. The hypothesis was that socio-demographic characteristics and mental health are associated with incidence of impostor syndrome.	This was an observational cross-sectional study. Participants were medical school students in their clinical years at Chiang Mai University in Thailand. via anonymous online surveys using the validated Clance Impostor Phenomenon Scale (CIPS). The surveys also included questions on sociodemographic characteristics and mental health conditions.	From the 228 clinical-year medical students, 108 (47.4%) reported experiencing impostor syndrome. High levels of stress (adjusted odds ratio = 2.315; 95% confidence interval = 1.105–4.853), anxiety (6.462; 1.374–30.392), and depression (4.219; 1.448–12.290) were significantly associated with an increased risk of experiencing impostor syndrome.	Imposter syndrome is common among medical students at Chiang Mai University in Thailand, with nearly half of students. reporting to have experienced it. While imposter syndrome was not found to be associated with the studied demographic factors (GPA, medical year, ward rotation, siblings, birth order, training place, or gender), it was significantly associated with psychological factors.	The authors recommend conducting longitudinal research concerning various types of healthcare professionals and students to develop a fuller understanding of the etiology and impacts of imposter syndrome in the healthcare industry.	Addressing imposter syndrome through education, mentorship, systemic problem solving, normalizing failure, and monitoring and treating mental health issues could assist students in realizing their full educational/professional potential.
Elnaggar M, Alanazi T, Alsayer NA, et al. (2023)	Medical school students are subjected high-stress levels, which may lead students to develop the impostor syndrome. Research is needed to investigate the prevalence of imposter syndrome and associated factors.	This study aimed to evaluate the prevalence and predictors of the imposter phenomenon (IP) among medical students at the College of Medicine, Jouf University, Saudi Arabia.	This was a cross-sectional study. A total of 200 medical students from years one to five completed the survey. A stratified random sampling technique was used to select groups of male and female Jouf University medical students. Data were collected with a digital self-administered questionnaire using the Clance IP scale.	Findings from the 165 participating students showed that 7.3%, 50.3%, 35.8% and 6.7% of medical students, respectively, suffered from few, moderate, frequent, and intense imposter features. GPA, monthly family income, father's educational level, mother's educational level, and marital status are predictors of IP.	This study found that IP is a common problem among medical students in Saudia Arabia. Being a first-year medical student can increase the risk of suffering from IP. Both low-achieving and high-achieving students suffer from IP. Monthly family income, father's and mother's educational level, and marriage affect students suffering from IP.	Additional research is needed to further describe the factors associated with IP, given its high prevalence among medical school students in Saudi Arabia and its damaging effects.	Normalizing the experience of medical school through raising awareness and open dialogue between staff, mentors, preceptors, and students will bring awareness to the negative impacts of IP and promote development of coming mechanisms.

Figure 1. Literature Matrix
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Factors Associated with Impostor Syndrome

- Monthly family income
- Mother's education level
- Father's education level
- Low self-esteem
- High stress
- Anxiety
- Depression
- Marital Status

Figure 2. Factors Associated with Imposter Syndrome

Factors NOT Associated with Impostor Syndrome

- Siblings
- Birth order
- Schooling location
- Ward rotation

Figure 3: Factors Not Associated with Imposter Syndrome

Factors Requiring More Research to Determine Association with Imposter Syndrome

- Gender
- GPA
- Year in school
- Race/ethnicity
- Parenting style

Figure 4: Factors Requiring More Research to Determine Association with Imposter Syndrome

Results, Discussion, and Conclusion

Results

The initial searches were screened for inclusion criteria. Several articles were excluded due to insufficient relevance to the terms: imposter syndrome AND income OR educational level. Only four articles were found that met the criteria for inclusion in the study. The results of the Literature Matrix Method showed that several factors were significantly associated with imposter syndrome (Figure 1). Relating to the study objective, monthly family income, mother's education level, and father's education level were identified as predictors of imposter syndrome in medical school students, specifically (Figure 2).[5,6] Other factors associated with imposter syndrome were low self-esteem, high stress, anxiety, depression, and marital status (Figure 2).[5,7] Several factors were found to not be significantly associated with imposter syndrome: siblings, birth order, schooling location, and ward rotation (Figure 3).[7] Due to a small sample size, the association of imposter syndrome with race/ethnicity and parenting style could not be determined (Figure 4).[8] The results for significance of association between imposter syndrome and gender, GPA, and year in school were mixed (Figure 4).[5-7]

Discussion

This study aimed to investigate the association between imposter syndrome, income, and education level by developing a Literature Matrix. Database searches revealed a gap in the literature on the association between imposter syndrome and income/education level. The few articles that met the inclusion criteria for this study showed that family income, mother's education level, and father's income level were statistically significantly associated with imposter syndrome in medical school students.[5,6] Interestingly, the results showed that students suffered from imposter syndrome more when their family income was middle or high compared to low. While a lower level of father's education was associated with imposter syndrome, a higher level of mother's education predicted imposter syndrome. However, the p-values for these findings were not statistically significant.[5] One of the limitations of this study was the small sample size of articles that met inclusion criteria. Due to the high prevalence of imposter syndrome among medical school students, there is a need to raise awareness about this phenomenon in public health. Several steps may be taken to reduce the burden of imposter syndrome among medical school students, such as offering counseling and mentoring services, screening for signs of imposter syndrome, prioritizing mental health, and normalizing failure.[5-7]

Conclusion

Imposter syndrome is complex, multifaceted and needs more research. Results indicate further research is needed to understand the correlation between education, household income, and imposter syndrome as a literature gap exists. Future research can provide insight into how to provide professional development and interventions to mitigate this concerning challenge among working professionals.

Future Work

We propose an extensive study to examine the correlations between imposter syndrome and household income and educational levels. This preliminary research will be a key step toward the unveiling of the roots of imposter syndrome and its interrelation with socioeconomic factors. This comprehensive study's research proposal will provide an intricate research strategy of incorporating quantitative and qualitative approaches. We intend to enhance our research methods in the following research week, detect potential challenges, and modify our data collection system in the next research week. Furthermore, the findings gained from this initial research will inform the design and implementation of subsequent larger-scale studies.

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