

Exploring the Relationship between Impostor Syndrome and Perfectionism among University Students in Nigeria

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Abstract

Impostor syndrome, characterized by persistent self-doubt and feelings of intellectual fraudulence, has been linked globally to perfectionism and poor psychological well-being, yet little is known about these dynamics among Nigerian undergraduates. This study investigated the prevalence of impostor syndrome, assessed levels of adaptive and maladaptive perfectionism, examined their interrelationship, and explored gender differences in these constructs. A cross-sectional survey was conducted among 224 undergraduate students at the University of Lagos, selected through random sampling across three faculties. Data were collected using the Clance Impostor Phenomenon Scale (CIPS) and the Hewitt and Flett Multidimensional Perfectionism Scale (MPS) and analysed with descriptive statistics, Pearson's correlation, and independent-samples t-tests. Findings showed that more than half of respondents (54.5%) experienced frequent to intense impostor feelings, alongside high levels of both adaptive and maladaptive perfectionism. Impostor syndrome was positively associated with overall perfectionism ($r = 0.57, p < 0.05$), with the strongest link observed for maladaptive perfectionism ($r = 0.61, p < 0.01$). Female students reported significantly higher impostor scores than males ($p = 0.038$), although perfectionism levels did not differ by gender. The results demonstrate that impostor syndrome is highly prevalent among Nigerian undergraduates and closely tied to maladaptive perfectionism, with female students being particularly vulnerable. These findings highlight the need for contextually tailored institutional interventions to reduce impostor feelings, address maladaptive perfectionism, and promote psychological well-being and academic success in Nigerian higher education.

Keywords: Impostor syndrome, Perfectionism, Undergraduates, Psychological well-being

Background

Impostor syndrome (IS), also known as impostor phenomenon, is characterized by persistent self-doubt, feelings of intellectual fraudulence, and the inability to internalize success despite objective evidence of competence [1]. Individuals with IS often attribute achievements to luck or external circumstances while fearing exposure as “frauds.” Recent evidence indicates that Impostor syndrome is highly prevalent among university students, particularly in competitive academic settings, where high-performance expectations, peer comparison, and institutional pressures intensify these experiences [2]. A systematic review of studies conducted between 2019 and 2024 concluded that impostor syndrome is widespread in higher education, with perfectionism, high achievement orientation, gender, and minority status identified as key contributory factors [2].

Perfectionism, a multidimensional trait involving excessively high standards and self-criticism, is strongly linked to impostor experiences [3]. Research distinguishes between adaptive perfectionism (perfectionistic strivings) and maladaptive perfectionism (evaluative concerns). Adaptive forms can foster motivation and persistence, but maladaptive perfectionism has been consistently associated with anxiety, depression, burnout, and reduced well-being [4]. Recent work has underscored these negative associations among student populations, suggesting that perfectionism may exacerbate impostor feelings when students consistently perceive their achievements as inadequate [5].

Empirical studies demonstrate significant correlations between impostor syndrome and perfectionism. Pákozdy et al. [3] found that among university students across multiple countries, higher perfectionism predicted greater impostor phenomenon, which in turn mediated the negative relationship between perfectionism and happiness. Similarly, Sheveleva, et.al. (2021) reported a strong positive relationship between perfectionism and impostor syndrome among Indian young adults, with women reporting higher levels of both. In medical education, maladaptive perfectionism has been linked to impostor syndrome and suicidal ideation, with impostor feelings mediating this relationship [7].

Although global research on the impostor phenomenon is growing, there is limited empirical evidence from sub-Saharan Africa. Within Nigeria, studies on perfectionism are more developed than work explicitly on impostor syndrome. Few

studies suggest contextually relevant patterns. For example, an intervention among pre-service historians in Southeastern Nigeria found that cognitive behavioural coaching significantly reduced maladaptive academic perfectionism. [8]. In another study, in Oyo State, the findings revealed that perfectionism was significantly associated with depression tendencies when correlated with such variables as narcissism, and psychological hardness [9]. These findings suggest that perfectionistic tendencies are present and impactful among Nigerian undergraduates. However, there remains a scarcity of studies directly examining impostor syndrome among Nigerian undergraduates and how it interacts with perfectionism in this population.

Understanding the relationship between impostor syndrome and perfectionism in the Nigerian undergraduate context is therefore critical. Such knowledge can inform interventions aimed at reducing psychological distress, improving academic self-efficacy, and promoting healthier learning environments. This study aims to address some of the identified gaps. Specifically, the objectives are:

1. To estimate the prevalence of impostor syndrome among Nigerian undergraduate students.
2. Assess levels of perfectionism, distinguishing adaptive and maladaptive dimensions.
3. Examine the relationship between perfectionism (overall and subcomponents) and impostor syndrome.
4. Investigate gender differences in impostor syndrome, perfectionism, and their interrelationship.

Method

Study design

This study employed a cross-sectional survey design to examine the relationship between impostor syndrome and perfectionism among undergraduate students at the University of Lagos (UNILAG), Nigeria. A quantitative approach was adopted, as it allows for the measurement of psychological constructs across different demographic categories.

Sample and sampling technique

The target population comprised undergraduate students enrolled in three selected faculties using random sampling technique based on institutional statistics, the Faculty of Education accounts for nearly one-third of the undergraduate population, with six departments and 22 programmes; the Faculty of Engineering represents about one-fifth of the population, with seven departments and 21 programmes; and the Faculty of Social Sciences contributes about one-ninth of the population, with seven departments.

The required sample size was calculated using Yamane's formula ($\text{Sample size} = N / 1 + N \cdot e^2$), where N is the population size and e is the margin of error (0.05). From a population of 44,602 undergraduates, the estimated sample size was 258. To account for non-response, 300 questionnaires were administered. Of these, 224 were correctly completed and retained yielding a response rate of 81.3% for analysis.

Instruments

Clance Impostor Phenomenon Scale (CIPS)

Impostor syndrome was assessed using the CIPS developed by Clance and associates [1]. The instrument consists of 20 items rated on a 5-point Likert scale (1 = not at all true to 5 = very true). Higher scores reflect stronger impostor tendencies. The CIPS has demonstrated strong reliability in previous studies (Cronbach's $\alpha \approx 0.80\text{--}0.90$) [2].

Multidimensional Perfectionism Scale (MPS)

Perfectionism was measured using the Hewitt and Flett Multidimensional Perfectionism Scale (MPS) [10]. The 45 items are rated on a 7-point Likert scale (= strongly disagree to 7 = strongly agree), yielding three subscales: self-oriented perfectionism, socially prescribed perfectionism, and other-oriented perfectionism. Previous studies with Nigerian undergraduates have reported satisfactory psychometric properties.

Data collection procedure

Data were collected by the researcher and two trained research assistants. Questionnaires were distributed during visits to the selected faculties. Participation was voluntary, and respondents were informed that they could withdraw at any stage. On average, it took 8–10 minutes to complete the instruments. Completed questionnaires were collected immediately to ensure a high response rate and minimize missing data.

Data analysis

Data were coded and analyzed using Statistical Package for Social Scientist (SPSS) version. Descriptive statistics (frequencies, percentages, means, standard deviations) were computed to summarize demographic characteristics and scale scores. Pearson's product-moment correlation was used to test the relationship between impostor syndrome and perfectionism. and Independent-samples t-tests were conducted to examine group differences (e.g., gender, faculty). Statistical significance was set at $p < 0.05$

Results

Prevalence of impostor syndrome

Out of the 224 valid responses analyzed, the Clance Impostor Phenomenon Scale (CIPS) revealed that impostor feelings were widespread among the students. As shown in Table 1, 12.5% of students fall within the *low* range, 33.0% within the *moderate* range, 40.2% within the *frequent* range, and 14.3% within the *intense* impostor category. This distribution indicates that more than half of the respondents (54.5%) experienced impostor syndrome at frequent or intense levels.

Table 1: Prevalence of impostor syndrome among undergraduates (N = 224)

Impostor Category	Frequency	Percentage (%)
Low (≤ 40)	28	12.5
Moderate (41–60)	74	33.0
Frequent (61–80)	90	40.2
Intense (> 80)	32	14.3

Levels of perfectionism

Scores on the Multidimensional Perfectionism Scale (MPS) indicated that both adaptive (perfectionistic strivings) and maladaptive (perfectionistic concerns) dimensions were present. Participants reported high self-oriented perfectionism, reflecting strong personal standards, alongside elevated socially prescribed perfectionism, reflecting concern over external expectations (Table 2). These findings suggest that Nigerian undergraduates exhibit both adaptive and maladaptive perfectionistic tendencies.

Table 2: Levels of perfectionism among undergraduates (N = 224)

MPS Dimension	Mean Score	SD	Percentage (%)	Interpretation
Self-oriented perfectionism	82.5	12.3	78.6%	High (adaptive)
Socially prescribed perfectionism	78.2	11.7	74.5%	High (maladaptive)
Other-oriented perfectionism	65.4	13.1	62.3%	Moderate

Relationship between impostor syndrome and perfectionism

Pearson's correlation analysis demonstrated a significant positive association between impostor syndrome and overall perfectionism ($r = 0.57, p < 0.05$). Further analysis revealed that impostorism was positively correlated with both adaptive perfectionism ($r = 0.42, p < 0.05$) and maladaptive perfectionism ($r = 0.61, p < 0.01$), with the strongest association observed for maladaptive dimensions (Table 3). This suggests that students with higher impostor feelings are particularly likely to endorse perfectionistic concerns.

Table 3: Correlation between impostor syndrome and perfectionism dimensions

Variables	1	2	3	4
1. Impostor syndrome	1			
2. Adaptive perfectionism	0.42**	1		
3. Maladaptive perfectionism	0.61**	-0.12	1	
4. Overall perfectionism	0.57**	0.11	0.42	1

** $p < 0.05$

Gender differences

Independent sample *t*-tests showed a statistically significant gender difference in impostor syndrome scores.

Table 4: Gender differences in impostor syndrome scores

Gender	N	Mean Impostor Score	SD	t	p
Male	110	62.00	12.55	2.16	0.038
Female	114	70.61	11.05		

The result in Table 4 indicated that female students ($M = 70.61, SD = 11.05$) reported significantly higher impostor feelings than male students ($M = 62.00, SD = 12.55$), $t(222) = 2.16, p = 0.038$. However, no significant gender differences were observed in perfectionism dimensions. This suggests that while perfectionism is common among both genders, female undergraduates may be more vulnerable to impostor experiences.

Summary

Overall, the findings demonstrate that impostor syndrome is prevalent among Nigerian undergraduates, with more than half experiencing frequent to intense impostor feelings. Both adaptive and maladaptive perfectionism were observed, with maladaptive dimensions showing the strongest association with impostorism. Significant gender differences were found, with female students reporting higher impostor scores, although perfectionism levels did not differ significantly by gender.

Discussion

The present study examined the prevalence of impostor syndrome, the levels and dimensions of perfectionism, their interrelationship, and gender differences among selected Nigerian undergraduates. The findings contribute to a growing body of literature on impostor syndrome and perfectionism in higher education while offering novel insights from the sub-Saharan African context, where empirical evidence remains limited.

One of the most salient findings of this study was the high prevalence of impostor syndrome among undergraduates. More than half of the participants reported frequent to intense impostor experiences, consistent with the definition of impostor phenomenon as a persistent sense of self-doubt and intellectual fraudulence despite objective evidence of competence [1]. This finding is consistent with international research documenting that university students, particularly in competitive academic settings, are at increased risk of experiencing impostorism [2]. The high prevalence among Nigerian undergraduates indicate that impostor syndrome is not confined to Western academic environments but is also pronounced in African contexts. In Nigeria, educational attainment is highly prized, not only as a personal accomplishment but also as a means of upward social mobility and family pride. These cultural and structural expectations may intensify the internalization of pressure and fear of failure, thereby contributing to elevated impostor feelings. Moreover, limited access to psychosocial support services in many universities may further exacerbate vulnerability to impostorism compared to settings where mental health support is more readily available.

The study also found that the students demonstrated high levels of both adaptive (self-oriented) and maladaptive (socially prescribed) perfectionism. This duality is consistent with theoretical models of perfectionism that distinguish between striving for excellence and maladaptive evaluative concerns [3,4]. While adaptive perfectionism can foster persistence and motivation, maladaptive perfectionism is characterized by excessive concern over mistakes, fear of negative evaluation, and reliance on external validation. In this study, students reported elevated self-oriented perfectionism, reflecting strong personal standards, alongside high socially prescribed perfectionism, which highlights concern with meeting the expectations of others. These findings resonate with the sociocultural context of Nigeria, where family expectations and societal emphasis on educational attainment are particularly strong. Previous research has documented that Nigerian undergraduates often experience significant pressure to excel academically, as performance is tied not only to individual identity but also to the family's social standing and prospects for economic advancement [8, 9]. As such, the observed high socially prescribed perfectionism may reflect an internalization of cultural and familial standards. While striving for excellence may serve as a protective factor, the maladaptive dimension places students at risk of adverse psychological outcomes, including depression, stress, anxiety, and burnout, echoing international findings that evaluative concerns are more closely associated with poor well-being [4,5].

The significant positive association between impostor syndrome and perfectionism provides further support for the well-established link between these two constructs. In line with previous studies [3,6,7], this study found that both adaptive and maladaptive perfectionism correlated positively with impostorism, although the relationship was stronger for maladaptive perfectionism. In agreement, Pákozdy et.al. (2024) reported that perfectionism predicted higher impostor feelings, which in turn mediated the negative relationship between perfectionism and happiness among university students. Similarly, Sheveleva et al. (2021) found strong positive correlations between perfectionism and impostorism among Indian young adults, with women reporting higher scores on both constructs. In medical education, maladaptive perfectionism has been directly linked to impostor feelings and suicidal ideation, with impostorism acting as a mediator [7]. This suggests that while maladaptive perfectionism consistently correlates positively with impostorism, the relationship between adaptive perfectionism and impostorism is less clear and sometimes inconsistent. Therefore, the tendency to accept overly demanding external standards and the fear negative evaluation may be particularly instrumental in exacerbating impostor experiences.

The present findings extend this literature by providing evidence from Nigerian undergraduates, suggesting that the relationship between perfectionism and impostorism is consistent across cultural contexts. The stronger association with maladaptive perfectionism highlights the importance of distinguishing between different perfectionistic dimensions. While adaptive perfectionism may encourage achievement, socially prescribed perfectionism appears to magnify feelings of intellectual fraudulence, thereby intensifying impostor experiences. This underscores the need for higher institutions to address not only the prevalence of perfectionism but also its maladaptive components that undermine student well-being.

Gender emerged as a significant factor in impostor experiences, with female students reporting higher impostor scores than their male counterparts, despite no significant gender differences in perfectionism. This finding is consistent with previous research suggesting that women are disproportionately affected by impostor syndrome [2,6,7,11]. One explanation is that female students may be more likely to internalize failure or perceive themselves as less competent, even when objective indicators suggest otherwise. In academic contexts such as Nigeria, where gender norms may intersect with expectations of academic excellence, female students could face added pressures to prove themselves, particularly in male-dominated disciplines like engineering. The lack of gender differences in perfectionism suggests that both male and female students set similarly high standards for themselves. However, the translation of these standards into self-doubt and impostor feelings may differ by gender. This distinction indicates that perfectionism alone does not fully explain gender disparities in impostor syndrome. Instead, gender-specific socialization processes and cultural expectations may likely play an important role in shaping how students experience and interpret their achievements.

Implications for higher education

The findings of this study have important implications for educational practice and policy. The high prevalence of impostor syndrome and its strong association with maladaptive perfectionism highlight the need for institutions to develop strategies that support students' psychological well-being. Also, interventions targeting perfectionism, particularly its maladaptive forms, may help reduce impostor experiences. Faculty-level interventions could also be useful, as the academic culture of specific disciplines may exacerbate or mitigate impostorism and perfectionism.

Limitations and suggestions for future research

While the study provides valuable insights, several limitations should be acknowledged. The cross-sectional design precludes causal inference, making it unclear whether perfectionism leads to impostor syndrome or vice versa. Data were collected from a single university, which may limit generalizability to other Nigerian institutions with different academic cultures. The reliance on self-report measures also raises the possibility of response bias.

Future research should adopt longitudinal and multi-institutional designs to better capture the dynamics of impostor syndrome and perfectionism across time and settings. Qualitative approaches could also shed light on the cultural nuances underlying these phenomena in Nigeria and other African countries. Importantly, intervention studies are needed to evaluate the effectiveness of counselling, coaching, and mentorship programs in reducing impostor experiences and maladaptive perfectionism among undergraduates.

Conclusion

In conclusion, this study demonstrates that impostor syndrome is highly prevalent among Nigerian undergraduates, with more than half of students experiencing frequent to intense impostor feelings. Both adaptive and maladaptive perfectionism were observed, with maladaptive dimensions showing the strongest association with impostorism. Female students were found to be particularly vulnerable to impostor experiences, although perfectionism levels did not differ significantly by gender. These findings indicate the urgent need for institutions to address impostor syndrome and perfectionism through targeted interventions, thereby promoting student well-being, academic success, and equity in higher education.

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