

IMPOSTER SYNDROME AND GRIT AMONG UNIVERSITY STUDENTS: USING MEDIATION MODEL

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ABSTRACT

Background: Imposter syndrome is a psychological pattern of self-doubt in great achievers who struggle to absorb their successes, have unjustified and ongoing self-doubt, and worry about being exposed as a liar or imposter. It describes an individual who is high achieving yet fails to recognize their success as being earned, but instead attributes it to external factors such as networking, luck, timing, lowering standards, and their charm. **Aim & Objectives:** This study aimed to (1) find out the association between imposter syndrome and grit and (2) to assess the mediating role of fear of failure between imposter syndrome and grit. **Method:** This study used a quantitative research design correlational in nature. Clance Imposter phenomenon scale (Pauline Rose Clance, 1985), Short Grit Scale (Duckworth & Quinn, 2009) and Performance Failure Appraisal Inventory (David E. Conroy, 2003) were being used in the study as tools for data collection. 100 college students constituted sample for this study (age range between 18-25 years). Sample were selected from Central University of South Bihar, Gaya and Patna University, Patna through stratified systematic sampling. **Result:** The result of the study show that there is a significant negative correlation between imposter syndrome and grit ($r = -.485^{**}$ $pd^{.01}$) and that the relationship between imposter syndrome and grit is significantly fully mediated by fear of failure ($R^2=.877$, $pd^{.001}$). **Conclusion:** This study provides the theoretical knowledge regarding imposter syndrome also helps in identification of factors that will contribute to student's positivism and self confidence and development of intervention plan for the improvement of mental health and self-confidence.

Key words: Imposter syndrome, grit, fear of failure and university students.

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INTRODUCTION

In today's world in general population anxiety and self-doubt have increased due to

academic and professional pressure, same scenario in India also which frequently leads

to Imposter syndrome, a state of mind in which accomplishments are attributed to external forces, rather than one's own skills or abilities. Recent years have seen a growing focus on this psychological phenomenon, especially concerning high achievers. Imposter syndrome was first discovered by Clance and Imes (1978) considered as psychological phenomenon found in a study of women in academic settings that includes faculty, graduate students and undergraduates. It refers to high achiever who despite gathering information from outer source consistently question their abilities and accomplishment (Siraj et al., 2024) and often attribute their success to networking, luck, timing, lowering standard and charisma like external factors (Holden et al., n.d.). 45% of students was shown to suffer from Imposter syndrome according to studies (Agrawal et al., 2025).

The passion for long-term goal often referred as grit is a psychological concept has drawn attention in the fields of education, organization and psychology. It is considered as an intangible feature demonstrating the relevance of determination and strength in pursuing their established goals notably those that demand for person to triumph over challenging circumstances, lends considerably to success over prolonged period of time (Duckworth et al., 2007). Traditionally where IQ has been thought of as predictor of success in school or workplace, these days grit has been seen increasing more significantly than IQ that propel students to accomplish their long-term objectives. Educators can play an essential role in determining students potential for success through putting and assessing grit skill into practice (Admin & Admin, 2024).

Studying Imposter syndrome and Grit together can be complex as both have an influence on individual ability to work towards future goals in the face of uncertain circumstances or

external barriers. Some of the national and international studies conducted in this regard shows a negative correlation to exist between imposter syndrome and grit (Charumitha A. et al., 2024), (Macias-Moriarity et al., 2023) and (Jones & Stacey A, 2023).

College student's overall development and academic achievement has been shown to have adverse effect of fear of failure, that is a motivating behavior that encourages preventing failure instead of achievement. This inhibits people from trying new things or taking risks, because they are afraid of failing (Bangar et al., 2024). One of the reason behind this could be that people may be anxious of failing at everything they do and strive to doubt their abilities which provides an evidence that imposter syndrome and fear of failure are comparable (Koshy et al., 2022). This is also supported by studies showing a significant correlation to exist between them (Nelson & Nelson, 2019) and (Noskeau et al., 2021). The willingness to pursue long term goals with commitment and dedication and commitment is referred as grit. People having such skill while facing failure and adversity are able to preserve their dedication and resolve for extended period of time. A negative correlation among these variables were indicated in research (Birr et al., 2023). Fear of failure can be seen to impact both imposter syndrome and grit from the available literature, hence used as mediator in this study. Very few studies have been conducted to explore the associated factors of imposter syndrome and mediating role of the fear of failure in Indian as well as across the boundaries, Although some studies done with regard to the imposter syndrome in western culture, but a limited amount of work done in Indian setup especially on university students to explore the interplay of all these study variables in a comprehensive framework, so this study aims to understand the impact of imposter syndrome on grit and

the mediating role of fear of failure among imposter syndrome and grit that will be helpful in fulfilling the theoretical knowledge regarding imposter syndrome as well as fostering the factors which promotes the positivism and self confidence in the students and planning of intervention plan for the upliftment of mental wellbeing and self-confidence.

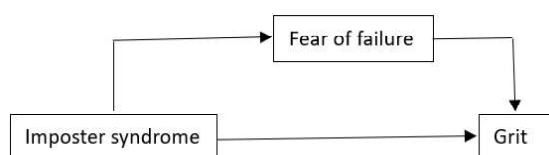
OBJECTIVES

1. To assess the nature and level of association among imposter syndrome, grit and fear of failure among university students.
2. To know whether imposter syndrome predict the grit among university students.
3. To assess whether fear of failure mediate the relationship between imposter syndrome and grit.

METHODS

Design- Present study uses a correlational and cross-sectional research design.

Working Research Framework:



Sample- The study's sample consisted of 100 students aged between 18 to 25 years (23.40 ± 2.30) studying in constituent colleges of Patna University Patna and Central University of South Bihar Gaya town. Participants were selected using stratified systematic sampling. During selection of the sample following exclusion and inclusion criteria were taken under consideration to make the population more homogenous.

Inclusion criteria-

- ◆ 19-24 years of age range
- ◆ Who are pursuing degree and post degree program from constituent colleges in regular mode
- ◆ Students only from Patna and Gaya town
- ◆ Students of either sex
- ◆ Students who are able to comprehend and respond on the test items.
- ◆ Exclusion criteria-
- ◆ Having any significant family or personal history and the illness

Tools used for data collection-

Following measures were used in the study,

1. Imposter syndrome (Pauline Rose Clance, 1985)- Clance Imposter Phenomenon Scale (CIPS) developed by Pauline Rose Clance in 1985, the CIPS is a 20 item self-report questionnaire designed to measure imposter syndrome of individual belonging to age range of 18 to 27. Items are rated on 5-point Likert scale ranging from 1 (not at all true) to 5 (very true). The internal consistency or reliability (Cronbach's alpha coefficient) for the scale is .93.

2. Grit (Duckworth & Quinn, 2009)- (Short Grit Scale (Grit-S) developed by Duckworth & Quinn in 2009, is 8-item self-report questionnaire among which 4 questions are having reverse scoring designed to measure grit with a range of ages, including adults, college students, and even some studies have included younger individuals. Items are rated on 5-point Likert scale ranging from 1 (very much like me) to 5 (not like me at all). It has a high internal consistency, with Cronbach's alpha values typically ranging from 0.77 to 0.90.

3. The Performance Failure Appraisal Inventory (David E. Conroy, 2003)- The Performance Failure Appraisal Inventory was developed by David E. Conroy in 2003, is a self-report questionnaire consist of 25 items having five domains i.e., fear of experiencing

shame and embarrassment, fear of devaluing one's self-estimate, fear of having a uncertain future, fear of important others losing interest and fear of upsetting important others. It is a 5 point Likert scale whereby "-2" indicates "Do not believe at all", "0" indicating "Believe 50% of the time" and "+2" indicates "Believe 100% of the time". A higher rating of item indicates higher general FOF level. The internal consistency coefficient (Cronbach's alpha) ranges from .80 to .90.

PROCEDURE OF THE STUDY

The participants of the study were approached according to inclusion and exclusion criteria. Before collecting data from the participants their inform consent were taken. Ethical guidelines given by APA (2010) had been followed in entire process of the study. After the selection of the sample selected tools were administered as per the prescribed procedure in the concerned manual. The data gathered was coded and then analysed using SPSS software. For the analysis of the data Pearson correlation, regression analysis and mediation model using PROCESS macro (SPSS) were used. Lastly the results were discussed in great detail and the conclusion were made based on that.

RESULTS

The aim of the study was to understand the impact of imposter syndrome on grit and the mediating role of fear of failure among imposter syndrome and grit. Obtained results are presented in the following subsections:

Table-1: Socio demographic characteristics of the subjects.

Variables	Mean±SD	Frequency	Percentage
Age		22.52±1.72	
Sex	Male	26	26%
	Female	74	74%
Educational level			
Under graduation		46	46%
Post graduation		54	54%
Stream			
Science		39	39%
Arts		61	61%
Place of institution			
Patna		65	65%
Gaya		35	35%

The table-1 shows participant's sociodemographic characteristics. The mean age of the sample was 22.52 ranging from 20 to 24 (22.52±1.72). The majority of university students were female who account for 74% and male account for 26%. Among these students 46% were undergraduates and 54% were postgraduates including 39% from science stream and 61% from arts stream. 65% of students were from Patna and 35% were from Gaya districts.

Table-2 Association among all study variables.

	Imposter syndrome	Grit	Fear of failure
Imposter syndrome	1		
Grit	-.485**	1	
Fear of failure	.502**	-.936**	1

Note. **p < 0.01

Table-2 show a strong negative correlation to exist between imposter syndrome and grit ($r = -.485$, $p < .01$), a strong positive correlation to exist between imposter syndrome and fear of failure ($r = .502$, $p < .01$) and a strong negative correlation to exist between fear of failure and grit ($r = -.936$, $p < .01$). Here, the H1a, H1b and H1c are accepted that shows there would be significant association between imposter syndrome and grit, imposter syndrome and fear of failure, and fear of failure and grit among university students respectively.

Table-3: Liner regression analysis with imposter syndrome as predictor variable and grit as criterion variable.

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Variable	Model 1				Model 2			
	B	SE B	β	t	B	SE B	β	t
Constant	2.257	1.919		1.176	3.651	1.840		1.984
Age	-.001	.067	-.004	-.020	.000	.062	-.001	-.003
Sex	.258	.213	.209	1.212	.185	.198	.149	.931
Education	.155	.221	.142	.701	.132	.204	.121	.648
Institution	.310	.266	.216	1.165	.237	.247	.166	.961
Stream	.249	.209	.224	1.194	.120	.198	.108	.604
Place	-.097	.219	-.085	-.442	.013	.025	.011	.062
Imposter Syndrome					-.019	.007	-.424**	-2.792
R ²		.130					.278	
R ² Change		.130					.148	
Adjusted R ²		-.004					.145	
F Change		.970					7.794**	

Note. **p < 0.01

Table-3: Present the hierarchical linear regression analysis using imposter syndrome as predictor variable and grit as criterion variable, after controlling the demographic variable of the study.

In Model-1 the socio-demographic variable-age, sex, education, institution, stream and place were controlled which shows it does not significantly predict grit ($R^2=.130$, $F=.970$) showing 13% variance in grit that is not significant. In Model-2 the imposter syndrome is analysed as predictor variable and grit as criterion variable controlling the socio-demographic variable, the result shows that imposter syndrome significantly predict grit ($R^2=.278$, $F=7.794$, $p<0.01$). The negative beta coefficient ($\beta=-.424$) indicates that higher imposter syndrome is associated with lower level of grit. Imposter syndrome contributes 14.8% variance in the grit. Here the H2 is accepted that is Imposter syndrome

		M (Fear of failure)							Y (Grit)				
Antecedent		B	SE	p	β	t		B	SE	p	β	t	
X (Imposter syn)	a	.025	.006	.000	.502	3.849	C'	-.001	.003	.749	-.020	-.322	
M (FOF)							b	-.830	.055	.000	-.926	-14.968	
		R ² = .252						R ² = .877					
		F(1,44)=14.815, p=.000							F(2,43)=153.031, p=.000				

Table-4: Present the model summary of mediation analysis using imposter syndrome as predictor variable, grit as criterion variable and fear of failure as mediator, showing full mediation effect of fear of failure between the imposter syndrome and grit. Imposter syndrome has a significant impact ($\hat{a}=-.020$, $t=-.322$, $p>.05$). Here this is direct effect (c') which is not significant. The mediating variable fear of failure was found to have significant impact ($\hat{a}=-.926$, $t=-14.968$, $p<.001$). Here mediation is significant and it is fully mediated because indirect effect is significant, so, framed hypothesis H4 is rejected i.e.. fear of failure is not significantly mediated between imposter syndrome and grit in university students.

DISCUSSION

The study was conducted to examine the relationship among imposter syndrome, grit and fear of failure, with fear of failure as a mediating factor. Findings shows that there is a significant negative correlation exist between imposter syndrome and grit. Also, the regression analysis shows that imposter syndrome is significant predictor of grit and the socio-demographic variables in were not found to be significant, indicating that the observed relationship between Imposter syndrome and grit is independent of socio-demographic variable. This result support the assumption that the individual with higher level of imposter syndrome would be having lower level of grit. This finding is also consistent with previous evidence in the literature supported by Charumitha A. et al. (2024) and Macias-Moriarity et al. (2023), in their study. At a conceptual level, imposter syndrome and grit represent opposing psychological orientations where imposter syndrome is characterized by chronic self-doubt while grit is characterised by sustained perseverance having confidence in long term goal. This inherent contradiction can be

theoretically explained using the Attribution theory by Weiner, that states that motivation is shaped by how individual describe their success and failure (Attribution Theory (B. Weiner) - InstructionalDesign.org, 2018). Individual high in imposter syndrome attribute success to external factors and their failure to internal and stable factors which eventually reduce motivation to persist and bring demotivation towards long term goal commitment that can be described as low grit among the individual. Similarly, the correlational analysis shows a highly significant positive association between imposter syndrome and fear of failure explaining the individual with higher level of imposter syndrome will be having high fear of failure. This finding is also consistent with previous evidence in literature supported by Noskeau et al. (2021), Nelson & Nelson (2019) and others in their studies. This can be explained by the Achievement Motivation theory (Atkinson, 1957; Elliot & Church, 1997) which states that fear of failure arises when individuals associate failure with shame, loss of self-worth, or social devaluation which is very similar to having imposter syndrome, therefore individual experience imposter syndrome are more prone to experience fear of failure. The correlational result analysis also reveals a highly significant negative association to exist between grit and fear of failure explaining individual having higher level of grit will be having lower level of fear of failure. This finding is also consistent with previous evidence in literature supported by Birr et al. (2023). This can be explained by Mindset theory (Dweck, 2006) which states that individual growth mindset for learning see mistakes as opportunities to learn and improve. Grit is conceptually aligned with growth mindset where abilities are viewed as malleable and improved through effort whereas fear of failure in contrast is strongly linked to fixed mindset, therefore having a

negative association among them. The mediation model shows that relationship between imposter syndrome and grit is fully mediated by fear of failure. Findings of the present study reveals that imposter syndrome negatively associated with grit, but this causal relationship is explained by the fear of failure, which makes a pathway for effect. There is no direct effect of imposter syndrome on the grit, but this link was developed only through the fear of failure. As per Achievement motivation theory, less motivated persistence and self-doubt, which are the characteristics of imposter syndrome, only affect the grit level of the student when it enhances the level of fear of failure in them.

Overall, the results showed a strongly significant association between impostor syndrome, grit, and fear of failure, with fear of failure acting as a complete mediator between imposter syndrome and grit.

CONCLUSION

This study gives an insight about the fear of failure and finally affect the grit level of the students, which become a major concern of current generation students. It will also be helpful to understand the fact that how psychological experiences may connect with distinct outcomes.

IMPLICATIONS

This study contributes to growing literature by theoretically and empirically adding the mediating role of fear of failure between imposter syndrome and grit. No one previous studies focus on this aspect, so that findings of this study will be able to fulfil the theoretical, empirical and geographical gap related to conceptualization of imposter syndrome. It will also helpful in framing the counselling and other psychological support system for the students to enhance their academic achievements. Psychoeducational programs that normalize impostor experiences

should be implemented in universities. By helping students reframe maladaptive beliefs about competence and failure, counselling interventions based on cognitive-behavioral approaches may lessen their fear of failing and indirectly increase their grit. Universities should adopt psychoeducational programs that normalize impostor experiences. Counselling interventions based on cognitive-behavioral approaches may help students reframe maladaptive beliefs about competence and failure, which may reduce their fear of failing and indirectly boost their grit.

LIMITATIONS

Limitation includes the regional homogeneity of the sample, given the small sample size (n=100) from a single state Bihar, the result should be viewed as preliminary rather than applicable to wider population. Wider range of sample are needed for stronger conclusion and generalization of application. Some other variable can also be used to analysed as mediator or moderator establishing the link between imposter syndrome and grit. Therefore, findings should be considered as suggestive rather than conclusive.

Conflict of interest among authors: No Ethical Clearance:

Prior to the onset of this study, ethical clearance was obtained from Department Research Degree Committee Department of Psychological sciences Central University of South Bihar (PSY/1305/03/06/25). All pertinent ethical guidelines established by the American Psychological Association (APA, 2002) were adhered to during the duration of the research study.

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