Research Paper

The Impact of Impostor Syndrome on Grit

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ABSTRACT

This study explores the relationship between imposter syndrome and grit in young adults with gender being a specific focus of interest. In such studies, the relationship between these two psychological constructs is examined, including whether there are reported differences in imposter syndrome and grit across genders. The study followed a cross-sectional correlational design wherein data was collected from 150 adults with an age range of between 18 and 26 years who were based mainly in India. Participants were administered validated measures that included the Clance Imposter Phenomenon Scale-Revised and Impostorism Scale, which assessed the various degrees of imposter syndrome and grit through established psychological tools. Data were collected employing convenience sampling. Pearson's correlation and independent t-tests are employed to analyze the association between and variation among the variables. The analysis found a negative correlation between grit and imposter syndrome. Higher levels of grit might have been associated with lower levels of imposter syndrome. Gender difference was also exhibited wherein females experienced a higher level of imposter syndrome as compared to males. However, no significant differences in grit levels were shown as based on gender or age.

Keywords: *Imposter Syndrome, Grit, Gender Differences, Cross-sectional Correlational Design, Young Adults*

Grit is a psychological concept, referred to as grit and passion for long-term goals, has attracted attention across fields of psychology, educational, and organizational behaviors. Grit is considered an intangible character, which contributes highly towards the success achieved over longer time spans and is placed on the significance of persistence and resilience towards achieving set goals, especially those goals that entail difficulties to be overcome by the individual (Duckworth et al., 2007). This concept is not the same as traditional definitions of achievement, where achievement is defined merely in terms of intelligence or talent, but instead it encompasses the importance of effort and perseverance in the long run.

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Angela Duckworth is one of the most prominent researchers working in this field. She developed the study of grit, hypothesizing that with higher grit, levels of success would be gained in rigorous environments such as school, business, and private lives (Duckworth et al., 2007). Her seminal work seems to indicate that grit predicts long-term success better than IQ or socioeconomic background. She has since built on this work and examined the effects of grit on performance, wellbeing, and life satisfaction across a wide variety of populations.

Theoretical Foundations for Grit
Its grounds are on various psychological theories and constructs, which concentrate more on persistence, goal-setting, and the power of sustained effort. More specifically, Duckworth's articulation of grit fits well within the following theoretical frames:
This concept is closely related to the concept of self-regulation, which refers to the regulation of thoughts, emotions, and actions that eventually lead to long-term goal achievements. In the words of Zimmerman (2000), the self-regulated learner not only has clear goals, higher motivation, and effective strategies toward overcoming obstacles but is also geared to sustain their effort over time. Grit fits into this definition because it requires the individual to continuously regulate their efforts and sustain their focus, especially in encountering challenges.

Growth Mindset Theory
Another related theory pertinent to the grit construct, one that is essential for life and for success, is Carol Dweck's (2006) theory of a "growth mindset," which posits that individuals who believe their abilities can be developed through effort and learning are more likely to be persistent when faced with failure. According to Dweck, those with growth mindsets are likely to see challenges as opportunities to grow and will not view them as insurmountable, which is in line with the concept of grit. Individuals high in grit have a mindset that situates obstacles as part of the journey to achieving long-term success.

Being Conscientious and Persevering
The personality trait conscientiousness is another theoretical underpinning of grit, which is the tendency to be organized, responsible, and diligent (Costa & McCrae, 1992). Fairly broad in its own right, conscientiousness, grit defines a narrower focus on perseverance toward long-term goals. Duckworth and Quinn (2009) thought that grit was its very own unique subset of conscientiousness, passion, and perseverance. In this sense, grit does not only mean the ability to work hard but also to work toward a single long-term vision despite an ever-diminishing motivation or adverse circumstances.

Delayed Gratification and Self-Control
Grit also shares conceptual ground with theories of delayed gratification, particularly Mischel's (2014) research on the ability to resist immediate rewards in favor of more significant, long-term goals. People with grit do not give in easily to temporal merits because they are actually able to exert a great deal of self-control, primarily through focusing on future benefits rather than short-term distractions or challenges. This ability to delay gratification makes all the difference regarding sustained success because those with grit are much more likely to stay the course through long-term objectives when short-term sacrifices are necessary.

Two Kinds of Grit

Whereas grit appears to often be described as a singular concept, some scholars have posited that in fact there is more than one kind of grit which the concept manifests according to context and person-goal. Understanding such comprehension of the types opens the prospect for further depth in exploring how grit functions within different strata:

This type of grit is particularly what is exhibited in academic contexts and reflects the effort that it takes to accomplish major long-term objectives. Students who exemplify more academic grit have a higher chance of succeeding despite overcoming an academic challenge, focusing over semesters or years, and realizing educational success (Wolters & Hussain, 2015). Academic grit is established characteristically through formal classroom settings, where persistence and setting of goals are instilled.

Career or Professional Grit

Career grit in the professional field refers to an individual commitment to long-term career objectives-even when job loss, economic depression, and other professional setbacks jeopardize one's promotion (Vallerand et al., 2003). The person who has career grit is persistent in the pursuit of professional development and, over the long term, always looks for opportunities for growth and learning that will help them improve career progression. This type of grit has an element of importance especially for those in competitive or high-pressure industries that need persistence and resilience to advance.

Personal Grit

Personal grit pertains to the perseverance and passion which a person applies on personal goals, say even fitness, artistic pursuits or hobbies. In this sense, grit can be considered that extended engagement of individuals towards personal passions despite the absence of other activity rewards (Tangney et al., 2004). In this sense, an athlete, who is full of grit, will spend years training and remain hopeful for mastering the sport and perfecting skills. In like manner, an artist may continually work on his art with no validation or recognition coming his way in this respect.

Social grit comprises persistence in maintaining and cultivating long-term social connections, which include friendships, family bonds, or love relationships (Luthar et al., 2000). A socially gritty person is one who is dedicated to considerable time and energy in their relationships despite the significant interpersonal challenges they may face. Such grit, therefore, encompasses both persistence and emotional resilience since each relationship is always in conflicts with disagreement and misunderstanding as well as external pressures.

Health and fitness grit

The more specific form of personal grit is health and fitness grit, referring to the determination people have in keeping up long-term physical health and fitness goals. It entails withstanding many discomforts in the form of regular exercise or even strict diets or sticking to a disciplined routine for well-being (Eskreis-Winkler et al., 2014). Health and fitness grit is just as vital for sports like athletics but becomes imperative also for a regular person working towards attaining a healthy lifestyle that one would like to maintain over the long haul.

Impostor syndrome:

Impostor Syndrome: refers to a psychological phenomenon wherein individuals who are patently successful lead persistent perceptions of being actual 'impostors'. More often than not, they attribute their success to luck or fortune rather than skills or ability. It keeps them

from taking credit for their achievements (Clance & Imes, 1978). This is more prevalent with high achievers not only in academics but also in medicine and corporate lives, where feelings of inadequacy may hinder the same personal as well as professional progression.

In recent studies, it has been ascertained that the syndrome of impostor is more prevalently exhibited among women and minorities perhaps because of the societal expectations and pressures of these stereotypes (Cokley et al., 2015). Women students who major in male-dominated fields, like STEM, Science, Technology, Engineering, and Mathematics, as seen in most universities are more likely to exhibit the symptoms of being an impostor than men. This situation is worsened by the pressure to succeed in the setting, which one feels unfavorably represented or stereotyped in (Peteet, Montgomery, & Weekes, 2015).

The implications of impostor syndrome are not only on self-view but have broader mental health effects. The victims of impostor syndrome are likely to experience anxiety, depression, and other forms of burnout (Neureiter & Traut-Mattausch, 2016). Further, the syndrome threatens professional growth and success in career progression because sufferers will mostly avoid promotions and leadership roles over fear of being caught as an impostor Vergauwe et al., 2015).

Understanding the dynamics of impostor syndrome, given the rising incidence in the wake of increasing competitiveness both academically and professionally, is an important issue. The present study aims at discussing how personality traits, social expectations, and workplaces might support the continuance of impostor syndrome. The interventions to enhance self-efficacy and counter the negative effects of impostor syndrome can be designed based on such understanding for the vulnerable populations.

Impostorism and Grit

Impostorism and grit is complex, as both traits influence an individual's ability to pursue long-term goals despite self-doubt or external obstacles. Impostorism, characterized by persistent feelings of inadequacy and the fear of being exposed as a fraud (Clance & Imes, 1978), often undermines self-efficacy. Individuals with impostor feelings may struggle to believe in their ability to achieve success, potentially dampening their perseverance and passion, which are key components of grit (Duckworth et al., 2007).

From a self-efficacy theory perspective (Bandura, 1997), impostorism reduces individuals' belief in their capacity to execute tasks successfully, which can weaken their motivation to maintain long-term effort. However, paradoxically, some research suggests that individuals with impostor feelings may overcompensate by working harder to avoid failure or being "found out" (Neureiter & Traut-Mattausch, 2016). This response may lead to increased grit, where impostor feelings push individuals to persist against difficulties to protect their image. Mindset theory (Dweck, 2006) also plays a role in understanding this relationship. Individuals with a fixed mindset are more likely to experience impostorism because they believe their abilities are innate and static. This mindset can hinder grit, as setbacks are viewed as personal failures rather than opportunities for growth. In contrast, a growth mindset can foster grit by encouraging individuals to see effort as a path to mastery, despite feelings of inadequacy.

METHODOLOGY

Sample

The study's sample consisted of 150 adults aged between 18 and 26 years mainly based in India. Participants were selected using convenient sampling, allowing for the collection of readily accessible individuals. This sampling method was employed due to its practicality.

Instruments

Two measures were used in this study,

1. **Clance impostor syndrome scale-revised:** The Clance Imposter Phenomenon Scale-Revised (CIPS-R), developed by Dr. Theresa Chrisman and Dr. Suzanne Imes in 1993, consists of 20 items rated on a 5-point Likert scale, from "strongly disagree" to "strongly agree." It assesses five dimensions of the Imposter Phenomenon: the imposter cycle, the need to be special, characteristics of superwoman/superman, fear of failure, and fear of success. Scores range from 20 to 100, with interpretations as low, moderate, high, or extremely high imposter feelings. The CIPS-R has demonstrated strong reliability, with Cronbach's alpha ranging from 0.71 to 0.92, and solid construct, convergent, and discriminant validity in various studies.

2. **The Impostorism Scale:** The Impostorism Scale, developed by Leary, Patton, Orlando, and Funk in 2000, consists of items rated on a 5-point Likert scale ranging from 1 ("not at all characteristic of me") to 5 ("extremely characteristic of me"). It measures individuals' perceptions of feeling like an imposter despite evident success. The scale has been widely used in research to assess imposterism across various populations, focusing on feelings of self-doubt, fear of failure, and attribution of success to external factors. The scale has demonstrated good internal consistency, with Cronbach's alpha values ranging from 0.76 to 0.84, ensuring reliability and validity in multiple studies.

Procedure

After determining the sample size, the equipment required including the consent form was distributed to qualifying respondents through Google Forms. Convenience sampling was used while collecting data. The data gathered was coded and then analysed in SPSS software version25. The analysis involved the interpretation of data to derive insights from it. Lastly, there was discussion about the findings in great detail, and conclusions were made based on the results. This was done systematically to ensure that data collection, analysis, and interpretation were all in line with the research objectives, hence leading to a comprehensive understanding of the outcome of the study.

RESULTS

Table 1 shows the descriptive statistics (frequency and percentage) of the socio-demographic variables

VARIABLES	CATEGORY	FREQUENCY	PERCENTAGE%
GENDER	Female	79	52.7
	Male	61	40.7
	Prefer not to say	10	6.7
AGE	17	3	2.0
	18	14	.3
	19	25	16.7
	20	43	28.7
	21	35	23.3

VARIABLES	CATEGORY	FREQUENCY	PERCENTAGE%
	22	21	14.0
	23	9	6.0
LOCALITY	Rural	47	31.3
	Urban	103	68.7

The participants' sociodemographic characteristics are shown in the table. Among the surveyed population of 150, the number of females 52.7% (N=79) exceeds the number of males 40.7% (N=61). In addition, 6.7% (N=10) of the respondents selected prefer not to say as a response to gender, demonstrating a negligible proportion of members who may wish to avoid associating with a gender. With respect to the age, the characteristics on the age distribution graphs depict a relatively younger sample group. The highest number or age group that most frequently appeared is 20 years, being represented by 28.7% (N=43) of the participants, followed by 21 years at 23.3% (N=35). 19 year olds constitute 16.7% (N=25) while those that are 18 years make 9.3% (N=14). The lowest age group is comprised of those who are 17 years old at 2.0% (N=3) and those who are 22 years old at 14.0% (N=21). The 23 years age group appeared in representation of 6.0% (N=9). In terms of locality preference, it was found that most of the subjects or 68.7% (N=103) are confident that they reside in urban regions. However, there are only 31.3% (N=47) of subjects who come from rural areas. Comprising a young female population from urban areas further shows that there is concentration of the sample in one demographic which will affect certain conclusions of the research regarding the social behavior and relationships of the topics tested in the study.

Table 2 shows the correlation between grit and impostor syndrome

VARIABLES	GRIT	IMPOSTER
GRIT	1	-.171*
IMPOSTER	-.171*	1

*. Correlation is significant at the 0.05 level (2-tailed).

This above table shows the correlation of Grit and Imposter Syndrome among respondents. The coefficient is negative significant, according to which it is suggested that Grit correlates with (r = -0.171, p < 0.05)* Imposter Syndrome among respondents. This means higher Grit levels go along with Imposter Syndrome low levels among respondents. Findings: These are suggestive of the fact that underlying peoples who have more perseverance and passion for long-term goals may be less likely to suffer from the pangs of inadequacy or self-doubt thus potentially providing the protective role of Grit against Imposter Syndrome.

Table 3 shows the T test for sex for Impostor Syndrome

Dependent variable	Sex	M	SD	t value	Sig. (2-tailed)
Impostor Syndrome	Male	17.68	4.971	2.282	0.024
	Female	19.54	4.508		

The following table presents the result of a t-test where the outcome of Imposter Syndrome was compared between male and female subjects. The mean score for males was at 17.68 (SD = 4.971), and higher for females with a score of 19.54 (SD = 4.508). The t-value was 2.282 where the significance level is 0.024 with p < 0.05. This means that on a statistical level, there is a big difference between males and females regarding Imposter Syndrome, where females have more experience of Imposter Syndrome. The result indicates that female

participants tend to feel more associated with the symptoms of Imposter Syndrome than the male counterparts.

Table 4 shows the ANOVA for age for Impostor Syndrome and Grit

(I) Age	(J) Age	Mean Difference (I-J)	Sig.	F
17	18	.071	1.000	
	19	.040	1.000	
	20	1.163	1.000	
	21	-.029	1.000	
	22	-.286	1.000	
	23	2.778	.993	
18	17	-.071	1.000	
	19	-.031	1.000	
	20	1.091	.997	
	21	-.100	1.000	
	22	-.357	1.000	
	23	2.706	.941	
19	17	-.040	1.000	0.652
	18	.031	1.000	
	20	1.123	.990	
	21	-.069	1.000	
	22	-.326	1.000	
	23	2.738	.905	
20	17	-1.163	1.000	
	18	-1.091	.997	
	19	-1.123	.990	
	21	-1.191	.977	
	22	-1.449	.972	
	23	1.615	.991	
21	17	.029	1.000	
	18	.100	1.000	
	19	.069	1.000	
	20	1.191	.977	
	22	-.257	1.000	
	23	2.806	.874	
22	17	.286	1.000	
	18	.357	1.000	
	19	.326	1.000	
	20	1.449	.972	
	21	.257	1.000	
	23	3.063	.861	
23	17	-2.778	.993	
	18	-2.706	.941	
	19	-2.738	.905	
	20	-1.615	.991	
	21	-2.806	.874	
	22	-3.063	.861	

The above table gives the output of one-way ANOVA run on the data to compare the means of prosocial behavior by age groups (17, 18, 19, 20, 21, 22, and 23 years). The results in all the tests indicate that there's no statistical difference as the p-values are all above 0.05.

Table 5 shows the ANOVA for age for Grit

(I) Age	(J) Age	Mean Difference (I-J)	Sig.	F
17	18	-2.476	.965	
	19	-3.413	.820	
	20	-4.450	.525	
	21	-2.590	.942	
	22	-4.571	.533	
	23	-3.333	.886	
18	17	2.476	.965	2.227
	19	-.937	.994	
	20	-1.973	.700	
	21	-.114	1.000	
	22	-2.095	.752	
	23	-.857	.999	
19	17	3.413	.820	
	18	.937	.994	
	20	-1.036	.953	
	21	.823	.988	
	22	-1.158	.964	
	23	.080	1.000	
20	17	4.450	.525	
	18	1.973	.700	
	19	1.036	.953	
	21	1.859	.406	
	22	-.122	1.000	
	23	1.116	.990	
21	17	2.590	.942	
	18	.114	1.000	
	19	-.823	.988	
	20	-1.859	.406	
	22	-1.981	.573	
	23	-.743	.999	
22	17	4.571	.533	
	18	2.095	.752	
	19	1.158	.964	
	20	.122	1.000	
	21	1.981	.573	
	23	1.238	.989	
23	17	3.333	.886	
	18	.857	.999	
	19	-.080	1.000	
	20	-1.116	.990	
	21	.743	.999	
	22	-1.238	.989	

The following table shows the outcome of a one-way ANOVA performed to find the differences in grit levels at different age groups (17, 18, 19, 20, 21, 22, and 23 years). The results present no statistically significant differences in grit across different age groups. The consistently high values of p display that people at different age groups do not show any dissimilar levels of grit. Therefore, in this population of young adults, other than age, it seems to predict grit, a factor which is very much dependent on individual experiences or environmental influences.

DISCUSSION

This analysis of the correlation between grit and impostor syndrome suggests a significant and negative relationship, where people with higher levels of grit-four perseverance and passion and like orientations toward long-term goals-tend to have lower levels of impostor syndrome. That is in accordance with the literature: grit can be a protective factor against feelings of inadequacy and self-doubt. These individuals would be more resilient to challenges, maintaining confidence both in one's abilities and achievements. Empirical studies have shown that the constituents of grit-developmental resilience and a growth mindset-can counteract the negative effects of impostor feelings, which will also align well with the idea that cultivating grit would be useful in educational and professional settings alike.

In contrast, comparing impostor syndrome among male and female subjects using the t-test has been highly statistically significant, as females are said to have a higher incidence of impostor syndrome than males. This is well elucidated in previous work showing that gender plays a crucial role in explaining self-perception and confidence gaps between women and men. Women, generally socialized to be more self-critical, can internalize feelings of inadequacy with more poignancy, thus turning out with higher incidences of the phenomenon.

Implications
The implications are profound, in that interventions intended to enhance self-efficacy and support would be very helpful to women in the academic and professional arena.

In one-way ANOVA findings on the relationship between age and impostor syndrome, no change is found within the groups of the participants. This would indicate that feelings of impostor syndrome do not trend as significantly with age in this sample. Empirical research also establishes that the phenomenon pervades different age ranges, such that persistence might be a function more of situational and personal factors, rather than age per se, making the results, in this case, less insightful. The absence of significant differences may suggest that the experience of feeling like an impostor is a normal experience for a young adult to go through, irrespective of which specific stage within that category, and calls for a generalistic approach to dealing with impostor feelings at all ages.

Results from one-way ANOVA for grit similarly indicate that there are no statistically significant differences among the different age groups. This shows that grit levels seem to be consistent across young adults, thereby indicating that something other than age, perhaps personal experience or environmental context or individual motivations, may be a more important determinant of grit levels. This indicates that research supports that grit can indeed be developed as a result of intentional practices and experiences rather than solely age-dependent. This, therefore, makes the programs targeting the development of grit very

positive in impacting young adults at any stage; it is all the more important to make the development of resilience and perseverance skills in life.

Overall, the results indicate a sophisticated interplay between personal traits such as grit and psychological phenomena like impostor syndrome with effects and relative consistency of these factors also manifesting at gender levels. Implications in this regard suggest the need for age-specific targeted interventions integrating these dynamics in educational and workplace settings to maximize self-efficacy and promote resiliency among young adults.

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Conflict of Interest
The author declared no conflict of interests.