

Relationship Between Impostor Phenomenon And Personality Traits: A Study On Undergraduate Students

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ABSTRACT

The term Impostor phenomenon coined by Clance and Imes is a psychological phenomenon where people experiencing impostor constantly doubt their own accomplishments, fail to internalize their success and achievements, and have a constant self-doubt and fear of being exposed as a fraud. Impostor can be defined as someone who feel they do not deserve the status or such high position as they are not much competent and live with the persistent fear of being found as fake. This concept is gaining much recognition and increasingly presented in literature and media. The purpose of the study is to examine the relationship between Impostor Phenomenon and personality traits and gender difference among undergraduate students. A sample of 40 students pursuing under graduation from Panjab University aged between 18 to 21 years were taken. Participants completed Clance IP scale developed by Dr. Pauline Clance ($r = 0.92$) which measures impostor phenomenon and Big Five Inventory developed by Goldberg that measures an individual on the Big Five Factors (dimensions) of personality. Pearson's correlation coefficient was computed to analyse the results with the help of IBM SPSS. From the result of the study, it was found that there was a positive significant relationship between Impostor Phenomenon and neuroticism (0.344). Other personality traits openness to experience, conscientiousness, extraversion, and agreeableness (0.091, -0.092, -0.029 and 0.086 respectively) did not have a significant relationship with Impostor Phenomenon. The study also revealed that there was no gender difference found among undergraduate students. The result is discussed in detail.

Keywords - Impostor Phenomenon, Gender differences, Personality Traits, Undergraduate students

INTRODUCTION

Impostor phenomenon (also known as impostor syndrome, perceived fraudulence) is the persistent doubt concerning one's abilities or accomplishments accompanied by the fear of being exposed as a fraud despite evidence of one's ongoing success. It involves feeling fake, or fraud like, denial of one's success and competence and is characterized by thoughts like "Others think I am smarter than I think I am" (Clance & Imes, 1978). People with

impostor phenomenon live with recurrent belief that they do not deserve their status, achievements, or high positions despite being competent enough.

Impostor phenomenon is an internal experience of believing that you are not as competent as others perceive you to be, as if you are a fraud and fooling others. They live with the constant fear "what if the other person gets to know that I am not as competent as others think." It is the

experience of feeling like a phony in some area of your life, despite achieving success in that area. Psychologists Suzanna Imes and Pauline Rose Clance were the first one to use this term in the 1970s.

Clance defined IP as “an internal experience of intellectual phonies than those who feel like fraud despite achieving great heights in academic or professional. Despite objective success, these individuals find it difficult to internalize their achievements and accomplishments, feel unworthy and worry that they may be uncovered as frauds. (Clance and Imes, 1978; Harvey, 1981; Bravata et al., 2019) Impostor has been found in diverse cultures among undergraduate students, entrepreneurs, medical, nursing, pharmacy, engineering students and organization managers.

Such people struggle with attributing their performance to their actual competence. They find it difficult to internalize their success. They attribute successes to external factors such as luck, unstable factors or receiving help from others and attribute setbacks to their professional inadequacy. They may say “there must be a mistake, they can’t offer me such a high post”, “I wasn’t smart enough to get this job” thus not interpreting their achievements and success to their hard work and feel deceptive and inauthentic as if they are faking their success despite evidence of their achievements and accomplishments.

Clance stated introversion, dread of evaluation, terror of failure, guilt about success, false and non-affirming family messages, overestimating others while underestimating oneself as some of the features that accompany impostor phenomenon beliefs.

The impostor cycle goes this way - the person is assigned a task, he/she experiences fear of failure, self-doubt, and questions themselves if they will be able to achieve success or not which leads the person to experience anxiety, nightmares, and psychosomatic symptoms. In order to reduce this feeling, the person works hard, overprepares and finally succeeds and receive positive feedback thus reinforcing the whole cycle. (Clance 2010)

Clance and Imes originally observed this phenomenon most commonly in high-achieving professional women. Around 1978, they noticed that women in high achieving positions complained of experiencing feelings of self-doubt, incompetence, and fear of not performing well in the future more than their male counterparts. They observed that despite scholarly achievements, high achievements on standardized tests, professional recognition and praise from respected authorities and colleagues, these women struggle internalizing their success.

Over time, they noticed impostor syndrome impacted males also. Currently, however, the evidence whether there is a gender difference in impostor phenomenon or not is still contradictory. Early work found high prevalence of IP among professional women (Clance et al 1978) but a significantly higher IP score was found for men faculty members in a study (Topping 1983). Recent researches display that impostor is prevalent in both the genders. Gravios (2007) stated that around 70% of people of both genders will experience feeling of being impostor once in a lifetime.

Neither DSM-5 nor ICD 10 contains any official diagnosis for impostor syndrome and thus is not recognized as a psychiatric disorder but psychologists recognize its existence as a

specific form of intellectual self-doubt (Weir, 2013). Studies found that higher levels of impostor syndrome are associated with symptoms of depression and anxiety (Clance & Imes, 1978; McGregor et al., 2008).

There is common feature between abnormal perfection (perfectionism) and impostor syndrome (Hening & Shaw 1998), (Tompson et al 2000) Recent studies in the workplace have highlighted the impact of impostors on relevant work attitudes and performance. Stronger impostor feelings in working professionals are linked with lower levels of job satisfaction, low performance, and lower organizational citizenship behaviours (Vergauwe et al., 2015). Impostor employees often experience fear of failure, fear of success, low motivation to lead and in turn results in high level of stress and burnout thus affecting the job performance and organization work. These findings suggest the impostor phenomenon has consequences beyond student and clinical populations.

Also, Impostor syndrome is often comorbid with depression and anxiety and is associated with impaired job performance, job satisfaction, and burnout among various employee populations including clinicians. (Dena et.al 2019) Impostor is also correlated with somatic symptoms, social dysfunction, history of prior suicidal ideations and attempts.

In an interview analysis, they found that people who feel like impostor hesitate to pursue new things and take responsibilities, do experiments, or take risks, have difficulty in making social network and connections, resist applying for new opportunities and feel undeserving and unqualified in their respective field. Such people tend to procrastinate their work or overprepares, spend too much time in order to get perfection. Impostor feeling also

affect their mental health conditions. (Devasmita 2020)

Likewise, numerous studies have examined and found a positive correlation between the variables of fear of success, perfectionism, fear of negative evaluation, pessimism and Imposter syndrome and a negative correlation between self-esteem, self-efficacy, self-worth, and impostor syndrome is found (Basak Nejad 2005). Impostors overgeneralize single failure experiences to their global self-concept (Thompson et al. 1998) Students with impostor feeling feel anxious and their performance gets worse in exam. It was found that impostor students believed they would perform less well, experience anxiety, manifest negative responses to failure and involve feeling of dissatisfaction with their performance when compared to non-impostor students. (Cozzarelli et al. 1190). Furthermore, decrease career planning and exploration, career striving and career related decision making is linked with impostor feeling. (Neureiter et al 2016)

It is important to examine the social context of an individual in order to study impostor phenomenon as individuals do not live in a social vacuum. Individual's position in social hierarchy, societal position, negative stereotyping related to gender especially women, ethnic and minority groups, racial discrimination also triggers impostor experiences.

Accordingly, Imposter have a strong desire for self-criticism (Kaselman et al 2011). Roots of impostor can be traced to family and parenting style. Parental overprotection and lack of parental care were found to be high predictor of impostor feeling while parental care was significantly negatively

correlated (Julia et al 2006). Extreme support of parents along with lack of care and intimacy in the family highly correlate with imposter feelings. (Want et al 2006). Families lacking cohesion, expressiveness and individual support contributed in development of imposter feelings (Bussotti 1990). Individuals parentified as children are more likely to experience imposter in adulthood. Individuals parentified in childhood develop an inauthentic self-image and this inauthenticity and inadequacy feeling manifest into imposter in adulthood (Rebecca 2010). When family members do not recognize their children's talent and achievements and when feedback received from teachers are inconsistent with family feedback, it contributes to the development of imposter (Clance 1985)

Predictors of Impostor Syndrome

Gender Effects – Hutchins and colleagues stated that there is a difference in coping with imposter feelings among men and women. In contrast, they also found gender effects only among students and not among professionals for imposter feelings.

Age Effects - Brauer and Proyer assessed imposter in two cohorts found that age was significantly negatively correlated with imposter feelings among working professionals.

Furthermore, the link between imposter syndrome and social support in this population is not well understood. While studies indicate that social support increases job satisfaction and commitment, reduces depressive symptoms, and improves both mental health (Chen et al., 2009) and physical health thus reducing imposter feelings (R. G. Gardner et al., 2019), there is an indication that social support as a coping strategy can be both effective and

maladaptive as well (Lazarus & Folkman, 1984).

Impostor feelings can be reduced through friend support, family support, parent support and teachers support. The support provided by the family, friends and teachers help only females to reduce the feelings of impostors. (Caselman, Self and Self, 2006)

The therapeutic approach aimed at reducing imposter feelings use cognitive restructuring and gestalt work with empathy. Other techniques stated helpful includes fantasizing conversations with significant persons whom they believe have fooled about their competence, fantasize feeling successful, sharing success stories with family members, to keep a journal to become aware of things as positive feedback they receive and other accomplishments. Clance state that the therapeutic process with impostor sufferers is however slow and requires patience but is richly rewarding and impactful.

(Clance et al 1987)

According to the findings of Mirjam et al the coaching sessions are more effective and beneficial in reducing the IP scores in comparison to training and no intervention. Cultivating a mindset shift in lowering the fear of negative evaluations by coaching intervention is seen to be an efficacious way in reducing imposter phenomenon and feeling. (Mirjam et al 2020)

REVIEW OF LITERATURE

IP sufferers do not have a realistic sense of their own competence and were not fully empowered to internalize their strengths, accept their deficits, and function with joy. Impostor fears may interfere more with women's functioning than men's (e.g., decreasing their striving for

high academic achievement) and acts as an internal barrier to empowerment and achievement. (Clance et al 1987)

Association between Impostor phenomenon, perfectionism and psychological adjustment was assessed in 477 medical, dental and pharmacy students. A strong relation was found between perfectionism, current psychological distress, and impostor feelings in health professional students. (K Henning et al 1998)

A positive correlation between fear of negative evaluation and a negative correlation between self-esteem with impostor phenomenon was found. In addition, correlation of fear of success, self-esteem, perfectionism, and fear of negative evaluation with imposter syndrome was statistically significant. Perfectionism and fear of success were the best predictors of imposter syndrome found in female and male graduate students. (Mehrabizadeh et al, 2005)

In addition, Impostor feelings were predicted by paternal overprotection and lack of paternal care. A significant relationship was observed between impostors and self-handicapping. Participants (N = 115) completed measures of impostors, self-handicapping, and parental bonding (for each parent) (Want et al, 2006)

The utility of attachment and entitlement as predictors of the impostor phenomenon in female graduate students were examined. Findings suggested that individuals with high levels of self-reliance/self-assurance entitlement were able to associate positive feedback with stable internal attributes. People with narcissistic expectations and anxious attachment were unable to openly accept positive feedback because of perceived deficits in self-worth (Gibson et al, 2008)

It was observed that Impostor feelings mediated the relationship between survivor guilt and depressive symptomatology, such that the relationship between survivor guilt and depressive symptoms was attenuated. Mediating effects of impostors on the association between survivor guilt feelings and self-report depressive symptomatology was explored. 97 African American college students were asked to complete measures of empathy-based survivor guilt, impostor feelings, and depression and was found that impostor feelings was associated with survivor guilt (Austin et al 2009)

Furthermore, the imposter phenomenon is linked to fragile self-esteem, as indicated by self-esteem instability, discrepant self-esteem, and contingencies of self-worth. In addition, the study suggested that impostors may hold conflicting motivations to approach success and avoid failure. It was found that impostors were sensitive to rewards and punishments as indicated by higher levels of the Behavioral Activation (BAS) and Inhibition (BIS) Systems. The finding suggested that impostors were more motivated by the threat of failure than the promise of success. (Schubert et al, 2013)

In addition, the potential impact of impostor tendencies on relevant work attitudes (i.e., job satisfaction and organizational commitment) and organizational citizenship behavior (OCB) were investigated and explored whether workplace social support can buffer the harmful effects of impostor tendencies or not. The research investigated 201 Belgian employees from three different sectors participated in a cross-sectional survey study. Result indicated self-efficacy as the most important predictor, followed by maladaptive perfectionism and Neuroticism. Further, results showed that employees with stronger impostor tendencies

were linked with lower levels of job satisfaction and OCB, and higher levels of continuance commitment. However, workplace social support helped to reduce the negative effects of impostor tendencies on job satisfaction and OCB. (Jasmine et al, 2015)

Likewise, the relationship between resiliency and impostor syndrome was examined. The statistical population of this research included those who were addicted during the years 2013-14 in the western parts of Mazandaran province of which 150 people were selected as a sample through stratified random sampling method. Research tool included Clance's Imposter Scale (1985) and Conner-Davidson Resilience scale (1988). The results showed that there is a significant negative and inverse relationship between impostor syndromes and resiliency. People with impostor syndrome find it difficult in internalizing their success and accomplishments despite external evidence of the success and the less the resiliency, the more impostor and vice versa. (Niayesh, 2015)

A study explored the association of level of burnout with impostor feelings in medical students. Research included 2,612 medical students out of which 138 students completed the questionnaire. The Young Impostor Scale (YIS) and Maslach Burnout Inventory- Human Services Survey were used to measure impostor and burnout. It was observed that impostor was significantly associated with the multiple burnout components including exhaustion emotional exhaustion, depersonalization, psychological distress, and diminished feelings of personal accomplishment. (Jennifer et al 2016)

Maladaptive perfectionism, impostor phenomenon and negative feelings were examined in 169 university medical students using survey. It was observed that students who

reported high score on feelings of shame, embarrassment and who met criteria for perfectionism scored high on impostor phenomenon. Further, it was related to moderate level of anxiety and depression symptoms as well. Thus, a strong association can be stated among impostor phenomenon, maladaptive perfectionism, and negative feelings which in turn contributed to poor mental health among pre-clinical medical students. (Katherine et al, 2019)

In addition, 831 doctoral level students from various disciplines completed self-report survey, measure of impostor syndrome and wellbeing (depression, stress, and illness symptoms). 10 item impostor syndrome scale, short version of Center for Epidemiological studies Depression Scale, 10 item strain scale, and 8 item Health and Illness Scale was used to measure the above factors respectively. The result showed that impostor syndrome is a strong predictor of depression, stress, and illness symptoms. Impostor feelings predicted increase in depression, stress, and illness scores. Moreover, impostor accounted for 36% of variance in stress while 30% of variance in depression. (Anna et al 2020)

A study explored the relationship between gender typing and impostor feelings and investigated a possible influence of social comparison orientation on the aforementioned association. 278 university students (73.7% women) completed an online questionnaire. Gender typing was measured with the help of an instrument assessing positive and negative aspects of masculinity and femininity. For social comparison processes to be measured, the general tendency to engage in social comparisons were used. Study found a moderate negative relationship between the impostor phenomenon and positive masculinity but no association with negative masculinity. In

contrast, it was revealed that impostors were strongly correlated with negative aspects of femininity but not at all with positive aspects of femininity. (Flora et al 2020)

Similarly, a significant negative correlation between the impostor phenomenon and self-esteem among the management students was found among 386 management students. The students with stronger impostor characteristics scored lower on self-esteem. Clance impostor phenomenon and Rosenberg self-esteem scale was used to assess impostor phenomenon and self-esteem. Data was collected through google forms. An inverse correlation was found between Impostor phenomenon and self-esteem ($r=-.794$). No significant relation was found between age and the impostor phenomenon. (Prarthana,2020)

The findings of a study which examined the relationship between impostor phenomenon and transformational leadership in science, technology, engineering, and mathematics (STEM) students, conducted on 548 undergraduate students in Spain showed that impostor phenomenon correlates positively to the transactional and passive leadership styles and negatively to the transformational style. The study concluded that impostor phenomenon can act as a hindrance in the leadership journey as it is associated with less effective leadership styles. (Cristina et al 2021)

Social anxiety was found to be positively correlated with impostor phenomenon in a sample of 247 Israel students. Students completed parental bonding instrument, Clance Impostor Phenomenon Scale, and the Social Phobia Inventory. The result showed that students who perceived their parents as less caring were more socially anxious and showed increased impostor scores thus parenting style

playing as a mediator role in development of impostor. (Yosi 2021)

RESEARCH METHODOLOGY

Research Problem

The aim of the research is to study impostor phenomenon and the gender difference among undergraduate students and the relationship between personality traits and impostor phenomenon. This study will help us to know which personality traits correlate with impostor phenomenon.

Research Design

The aim of the research is to study impostor phenomenon and the gender difference and the relationship between personality traits and impostor phenomenon. The study comprises of university students completing there under graduation from Punjab state. For this purpose, a total sample size of 40 is drawn using convenience sampling from the total population of university students. Clance IP scale and Big Five Inventory is used to measure the impostor phenomenon and personality traits. The questionnaires are presented in google forms and the data is collected. The data collected is analysed using IBM SPSS and the results are evaluated using Pearson correlation. The results are discussed in a tabular form.

Objectives of the research

- To find out the gender difference in impostor phenomenon among undergraduate students
- To find out association of personality traits and impostor syndrome among undergraduate students

Hypothesis

- There will be a gender difference in impostor syndrome among undergraduate students
- Neuroticism will be significantly positively correlated to impostor phenomenon among undergraduate students

Target population

18 - 21-year university students of Punjab completing there under graduation

Estimated sample size – 40

Type of sampling – Convenience sampling

Material Used

- Clance IP Scale (CIPS)- The scale consists of 20-items with 5 options ranging from 1(not at all true) to 5 (very true), is developed by Dr. Pauline Clance to measure impostor phenomenon. The reliability of the scale is 0.92
- Big Five Inventory - This is a 44-item inventory with 5 options ranging from 1 (disagree strongly) to 5 (agree strongly) that measures an individual on the Big Five Factors (dimensions) of

personality – Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience (Goldberg, 1993). Each of the factors is then further divided into personality facets.

Inclusion and Exclusion Criteria

Gender criteria of the sample was included in the research in order to study the gender differences while criteria age and ethnicity of the sample was excluded from the research.

Statistical tool to be used – Data collected through google forms will be entered into IBM SPSS for analytical analysis. To study relationship between personality traits and impostor phenomenon, Pearson correlation will be used.

RESULT AND DISCUSSION

The purpose of the study was to examine the gender difference and relationship of impostor phenomenon with personality traits among undergraduate students.

The result was calculated using person correlation coefficient to compare impostor phenomenon and personality traits

Table 1: Correlation matrix showing the relationship between dimensions of personality (viz. Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism) and Impostor Phenomenon (N = 40)

Personality Trait	Impostor phenomenon
Openness to experience	0.092
Conscientiousness	-0.091
Extraversion	-0.029

Agreeableness	0.086
Neuroticism	0.344*

Note: * $p \leq 0.05$; $df = 38$

The result of the study showed interesting results.

A significant and positive relationship was found between impostor phenomenon and neuroticism personality ($r = 0.344$) at $p > 0.05$ level as stated in Table 1. Thus, it can be concluded that higher the neuroticism personality traits in an individual, the more the chances of an individual to experience impostor phenomenon or vice versa

Therefore, the hypothesis stating that neuroticism will be significantly positively correlated to impostor phenomenon among undergraduate students was accepted.

The findings were consistent with the findings of Najjean et al (2002) which predicted relations of impostor measures with high Neuroticism and low Conscientiousness. Depression, anxiety, and low self-discipline were predicted as important characteristics of impostor feelings. Psychological distress was found to be positive correlated with neuroticism and further was linked with impostor phenomenon.

Openness to experience, conscientiousness, extraversion, and agreeableness had negligible correlation with impostor phenomenon as the Pearson correlation coefficient came out to be 0.091, -0.092, -0.029 and 0.086 respectively as shown in Table 1

Table 2: Mean, Standard Deviation of males and females with respect to impostor phenomenon

	N	Mean	Std. Deviation
Male	20	58.40	9.046
Female	20	59.15	12.274

Table 2 shows that there was no gender difference with respect to impostor phenomenon among under graduate students.

Thus, our hypothesis stating that there will be a gender difference in impostor syndrome among undergraduate students was rejected.

It was equally prevalent in both, males and females pursuing under graduation. Similar results were found in the study by Dena et al (2019) which showed that while women do suffer from impostor syndrome, half of the included studies that reported evaluating a

gender effect found no difference in the rates of men and women suffering from impostor syndrome.

CONCLUSION

The study focused on the relationship between impostor phenomenon and personality traits and whether there is any gender difference or not among undergraduate students using personality and impostor measurement scales.

The results showed no significant relationship of Openness to experience, conscientiousness,

extraversion, and agreeableness with impostor phenomenon, but neuroticism had a significant positive relation with impostor phenomenon

It has been found that students high on impostor phenomenon experience persistent doubts on their achievements, fear that they may get exposed or be discovered as a fraud, unintelligent or less competent. Students with impostor phenomenon find it hard to internalize success, discount praise and accomplishments and attribute their achievements to external factors such as luck or error rather than internalizing them to their own abilities or skills. It prevents students from exploiting their maximum potential

Clinical and academic faculty suspecting a student experiencing impostor should take immediate measures to unmask and intervene to prevent further decay of the student's clinical experience. A study by Safaryazdi found the impostor feelings will be decreased by increasing resiliency. This will result in improvement of impostor students and boost their self-esteem and confidence. Different interventions can be used in order to lessen impostor feelings. Training intervention, dyadic coaching sessions aim to increase self-enhancing attributions and self-efficacy as well as decreasing impostor feelings.

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