

Called to Serve: Exploring the Relationship of Impostor Phenomenon and the Self-Esteem among Student Leaders

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Abstract— *The Impostor Phenomenon has garnered attention in numerous studies due to its adverse effects on individuals' psychological, biological, and social well-being. Despite its prevalence, the impostor phenomenon has not yet been classified as a disorder or illness in any diagnostic criteria, underscoring its status as a social and psychological phenomenon (Kaplan, 2009). Furthermore, this study aims to contribute to research focused on the impostor phenomenon and to investigate the relationship between self-esteem and the impostor phenomenon among student leaders in the Philippines. Through a quantitative research approach, data were collected from student leaders to assess their levels of self-esteem and the extent of impostor feelings they experienced. Moreover, this research employed Pearson correlation analysis, revealing a significant negative correlation (-0.679) between these variables, indicating a tendency for self-esteem to decrease as impostorism intensified. Furthermore, based on a sample of 100 student leaders, the findings rejected the null hypothesis and confirmed a strong correlation, emphasizing that there is a relationship between self-esteem and the impostor phenomenon among undergraduate student leaders. The findings of this study will contribute to a deeper understanding of the psychological dynamics within student leadership roles and provide insights into the implications for supporting the well-being of student leaders.*

Keywords— *Impostor Phenomenon; Fraudulent; Mental Health; Self-Esteem; Student Leaders.*

I. INTRODUCTION

Student leaders are pivotal in shaping an effective academic environment, influencing student learning, and supporting students' needs (Ferdinandi & Kiwonde, 2023). Students often consider them as their role models because these leaders are often competent, knowledgeable, and have the capacity to influence them. Student leaders typically work under an organization, containing active participation in an educational context and facilitating collaboration and inclusivity (Adams & Semaaderi, 2019). They are responsible for multiple academic duties and tasks, such as organizing school activities, guiding pupils, providing reports, and ensuring a healthy academic engagement with their fellow students. These student leaders are composed of a specific purpose, mission, vision, and call to action in an academic setting (Rosch & Collins, 2017). However, within the halls of academe, where the pursuit and inquisition of knowledge are revered as the highest ideal,

academic achievements are a scholar's marker of success as an intellectual. Despite their success and milestones, looming in the back of the minds of these achievers always prevails the question, "Do I deserve my achievements, or did I just get lucky?" "Am I perfect enough?" "What if others find out I am not as competent as they believe I am?" many more continue to plague their nights. A subtle yet persistent challenge known as the Impostor phenomenon quietly erodes the confidence of these beings.

According to Huecker et al. (2023), the Impostor phenomenon, also commonly known as Imposter syndrome, fraud syndrome, perceived fraudulence, and impostorism, is a psychological phenomenon of an ongoing internal experience wherein an individual experiences self-doubt of intellectual capabilities, technical skills, and interpersonal, and intrapersonal achievements among high-performing individuals. As these individuals cannot accept their achievements and success in life, they often suffer from negative feelings such as self-doubt, depression, anxiety, and fear of being disclosed as a fraud in their place of work despite having empirical evidence of accomplishments, abilities, and skills (Machulska & Burey, 2021). Moreover, this psychological phenomenon adversely affects the well-being of an individual, including their self-esteem. This means that individuals experiencing the impostor phenomenon often show negative subjective perceptions and behavior toward themselves, which leads to low self-esteem (Mainali, 2020).

History of Impostor Phenomenon

The term "Impostor Syndrome" can be traced to 1978 when it was then called the "Impostor Phenomenon" by psychologists Pauline Rose Clance and Suzanne Imes. The study of the impostor phenomenon was rooted in the experience of the proponent of the pioneering study of the impostor phenomenon. Clance was the youngest of six children; despite her academic achievements, she had persistent self-doubt after believing she had failed every exam. When she shared her academic journey and her experiences, Clance and Imes began holding and facilitating workshops and seminars for women to put themselves forward with confidence (Jamison, 2023). The two psychologists recognized the impostor phenomenon as a female issue, similar to Martina Horner's concept of "Fear of Success"

(Ivers & Downes, 2023). According to Horner, a lot of women deliberately avoid success because they worry that if they achieve, people will reject them or think less of them (Azab, 2023). This issue is equivalent to the contemporary impostor phenomena.

Although the term “Imposter Syndrome” is widely used in mass and digital media compared to the imposter phenomenon, the proponent of pioneering research regarding the imposter phenomenon, Pauline Rose Clance, emphasized that researchers of the mentioned topic should use the imposter phenomenon term rather than the widely used “imposter syndrome.” Moreover, It is essential to note that the word “syndrome” is often used in an official medical diagnosis in which the psychological phenomenon, the imposter phenomenon, is still not considered as one of the disorders or illnesses in any set of census criteria. Thus, the imposter phenomenon is still a social and psychological phenomenon (Kaplan, 2009).

Adverse Impact of Impostor Phenomenon

Individuals with the impostor phenomenon have been consistently associated with numerous adverse effects. Several researchers and intellectuals have studied and explored the preponderance and impacts of the impostor phenomenon (Parkman, 2016; Bravata et al., 2019). Hence, intellectual fraudulence and the inability to internalize success harm an individual's well-being, including psychological and biological.

Negative Effects on Psychological Well-Being

The foremost investigation of the impostor phenomenon revealed that these circumstances contribute to increased depression, shame, anxiety, irritation or aggravation, low self-esteem, and overall poor mental health (Clance & Imes, 1978). Pioneering studies also explained that these cause individuals to feel cognitive and emotional instability, such as experiencing guilt about achievement, unworthiness or undeserving of success, hopelessness, detachment, dissatisfaction, introversion, and persistent fear of failure (Bernard et al., 2020). Thus, the impostor phenomenon enforces a sentiment of overpressure on an individual's performance and extreme validation, impacting one's mental health.

Moreover, numerous scholarly studies have delved into the adverse impact of the impostor phenomenon. In alignment with these investigations, they have discerned supplementary detrimental effects of said psychological phenomenon on an individual's well-being. These consequential impacts encompass aspects such as introversion, despondent reactions, and adverse affectations, including feelings of unworthiness, neuroticism, guilt, and skepticism towards personal achievements, as well as emotional depletion, perfectionistic tendencies, and fear of failure (Clance & Imes, 1978; Clance & O'Toole, 1988; Harvey, 1981; Holmes et al., 1993; Langford & Clance, 1993; Ross et al., 2001; Cusack et al., 2013; Hutchins, 2015; as cited in Sims, 2017).

Negative Effects on Biological Well-Being

Furthermore, these psychological impacts can lead to adverse biological outcomes; this is explained by a clinical psychologist, John Mayer, who indicates that negative thoughts

cause a stress response, affecting the amygdala in the brain, which is a limbic system that handles mood and intuition (Page, 2017). This leads to the secretion of hormones, increasing the catecholamines level, such as epinephrine and norepinephrine, which can develop a serious health condition. Additionally, it has been found that there is an affinity between the impostor phenomenon and inadequate sleep. Given that anxiety is often associated with the impostor phenomenon, a study found that it can disrupt sleep patterns, resulting in a range of negative emotional stress and adverse health outcomes (Mascarenhas et al., 2018). This means that a person with the impostor phenomenon can experience biological issues, such as chronic stress and sleep deprivation, impacting their overall health and well-being.

Negative Effects on Social Well-Being

Many individuals affected by impostor phenomenon manage to meet their school-related and professional obligations, but not without significant distress. Post-undergraduate students such as graduate and doctoral students grappling with this phenomenon often doubt their admission to academic programs, fear their inability to sustain their accomplishments, and often feel academically unprepared. These individuals frequently compare themselves to their peers and attribute their academic achievements, including grades, to luck, grading errors, or biased assessment by their professors (Hoang, 2013; Clance & Imes, 1978; Cromwell et al., 1990). Moreover, these internalized doubts might lead to self-doubt which directly impacts their academic performance. When these individuals face academic tasks, those experiencing the phenomenon often struggle with worry, leaving to either procrastination or excessive preparation. Eventually, they may succeed, feeling relief and a sense of achievement. However, over time, they may develop a false belief that torment is necessary for success, fearing failure if they try to break this cycle (Cromwell et al., 1990; Sakulku & Alexander, 2011; Clance, 1985).

Furthermore, regardless of displaying characteristics associated with the impostor phenomenon, research suggests that individuals with these tendencies are often highly intelligent and hardworking, frequently excelling academically (Clance, 1985; Sakulku & Alexander, 2011; Hoang, 2013). However, they may face challenges in large tertiary educational settings when they find out that their abilities are not unique (Sakulku & Alexander, 2011). In fact, impostor-related symptoms tend to arise when individuals, especially learners, encounter new stimuli and stressful events where they see themselves less confident about their capability to succeed.

Despite some variations in how scholars define the phenomenon, there is a consensus that individuals experiencing the impostor phenomenon hold fixed beliefs about their lack of qualification, incompetence, and intellectual inadequacy (Hoang, 2013; Sakulku & Alexander, 2011; Clance & Imes, 1978). Several academic research studies support the idea that these personal experiences cause distress and lead to maladaptive behaviors in individuals suffering from the impostor phenomenon, reinforcing their impostor-related traits over time. Specifically, those affected by the phenomenon tend

to (a) work diligently, (b) engage in intellectually dishonest behavior by concealing their genuine opinions, (c) attribute their achievements to external factors such as luck or charm rather than acknowledging their abilities, talents, and handworks, and (d) avoid taking risks (Clance & Imes, 1978; Cromwell et al., 1990; Hoang, 2013; Sakulku & Alexander, 2011).

Impostor Phenomenon among Student Leaders

Within the context of student leaders, studies implied that this collective individual is frequently influenced by the phenomenon. Multiple literature explains that leaders are one of the renowned groups that are potentially vulnerable to the impostor phenomenon (KH & Menon, 2020). Additionally, students with leadership responsibility have an increased pursuit of perfection, evaluation, and pressure to sustain high standards (Lee et al., 2020). These analyses suggest that student leadership visibility and fear of negligence contribute to the development of the impostor phenomenon. Furthermore, science, technology, engineering, and mathematics (STEM) leaders with psychological experiences of impostor phenomenon hinder their transformational leadership, affecting their self-validation and heightened self-doubt (Domínguez-Soto, 2021). Transformational leaders are individuals who work with a team that empowers and supports the members of the groups, enables clear vision, and encourages positive change (Cherry, 2023). Hence, student leaders become haunted by the feeling of incompetence and inadequacy in their academically successful positions. This grapples with impostor feelings related to their leadership development, skills competencies, and learner outcomes.

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Relationship of Impostor Phenomenon and Self-Esteem

Furthermore, the impostor phenomenon and self-esteem have been relevant in various studies. It was proven that there

is a link between the impostor phenomenon and an individual's self-esteem (Naser et al., 2020). In psychology, self-esteem is defined as self-evaluation of an individual's worth or value and approval or acceptance (Ackerman, 2018). It is considered a subjective perspective of oneself, such as one's discernment of their attributes and abilities. Additionally, self-esteem can be perceived positively and negatively; positive indicates high self-esteem, and negative means low self-esteem. According to Cherry (2023), individuals with high self-esteem tend to believe in their abilities or skills and experience a sentiment of entitlement to success. In contrast, individuals with low self-esteem struggle to believe in their abilities and feel unworthy, resulting in doubting themselves and being unsure of succeeding. This only implies that there is a disparity in terms of perceiving oneself worth, abilities, performance, and accomplishment.

The Self-Esteem

Multiple theories and studies have examined and investigated the development of self-esteem. However, one of the initial theories of self-esteem is the concept of the hierarchy of needs, developed by an American psychologist, Abraham Maslow. Self-esteem was placed fourth in the hierarchy of needs; it presents that self-esteem is essential in meeting human needs. Hence, Maslow classified esteem into two categories: esteem for a person's needs and one's desire to gain respect and reputation from others (McLeod, 2024). Therefore, high self-esteem develops within an individual when recognition, validation, and acknowledgment develop, precisely in a multi-culturally diverse world. A study states that self-esteem is the essence of proficiency in all endeavors. It has been revealed that self-esteem relates to academic achievement, job success, satisfaction, and interpersonal compatibility (Redenbach, 1991, as cited by Naderi et al., 2009). This explains that self-esteem is a fundamental human need, emphasizing its prominence in one's life progress and process.

Self-Esteem of Student Leaders

Moreover, self-esteem has an essential impact on student leadership behavior. A study explained that students' level of self-esteem is influential in developing their leadership skills (Moran, 2015). Self-esteem in organizational and educational contexts could result in leadership traits and cognition among students (Karataş & Akyüz, 2021). This means that a student's effective leadership performance is dependent on their level of self-esteem. Additionally, student leaders are generally perceived to have a higher self-esteem compared to others. High self-esteem is recognized as a predictor factor for student leaders and academic achievement (Nguyen et al., 2019). These findings are assessed since student leaders were represented to have good attributes, including high competence, social skills, good academic performance and standing, and effective communication skills. However, there is an inadequate investigation of student leaders' self-esteem, specifically in comprehending student leaders' well-being. For instance, a study on medical student leaders highlights the gap in understanding their self-esteem, particularly their self-perception within themselves or their self-concept despite their

positive attributes and performance (Shrestha et al., 2021). Increased self-esteem does not inevitably result in effective proficiency and does not always render positive outcomes (Baumeister et al., 2003). This only indicates that Self-esteem profoundly influences and shapes students' leadership behavior; however, there is a remaining gap in comprehending the dynamics of student leaders' self-esteem.

Factors Affecting the Self-Esteem of Student Leaders

Furthermore, studies revealed that self-esteem varies among students, impacting their leadership behavior and role (Günel, 2021). Multiple factors affect student leaders' level of self-esteem. Gender is one of the prevalent issues in students' self-esteem, particularly in leadership, varying between females, males, and other minorities (Hand et al., 2017). This means that students' confidence in their leadership abilities can be profoundly affected by their gender. Evidence found that leaders affiliated with underrepresented groups develop impostorism or inadequacy sentiments, resulting in doubting themselves to properly perform the characteristics of a leader (Kark et al., 2021). For instance, gender stereotypes and bias decrease students' aspirations and competence in leadership roles, diminishing their self-esteem (Fedi & Rollero, 2016). These stereotypes and biases can negatively influence student leaders' self-perception and self-efficacy on their performance. Hence, these findings only suggest that gender can impact student leaders' self-esteem domains.

In addition, social role expectations can significantly impact student leaders' self-esteem. The association between social role expectation and self-esteem is embedded in leadership since leading extends beyond claiming to be a leader, it involves others acknowledging, recognizing, and accepting them as one (Steffens et al., 2020). In psychology, social roles are expected behavior patterns of a person based on specific position within a social unit (McLeod, 2023). Student leaders are essential figures, they not only represent their peers but also have an important role in molding students' behavior and values. Expectations are extended to the university level, in which they are expected to perform well in organizing student affairs and ensuring stability, and peace (Murage et al., 2018). It means that student leaders' duties and tasks become dependent on social categories and shared expectations. A study highlights that when a leader internalizes these expectations as their leadership identity, it heightens their sense of impostorism in their role, such as the feeling of incompetence and fear of meeting others' expectations (Kark et al., 2021). Similarly, when student leaders feel pressured to meet the high standards set by society, they experience feelings of inadequacy and lower self-esteem (Boudreault-Bouchard et al., 2013). Certain studies explain that these societal roles and status reversals may result in a discrepancy between student leaders' self-worth and the external validation they receive, decreasing their self-esteem (Richeson & Ambady, 2001). This suggests that broader social role expectations can affect students' self-esteem levels, resulting in a belief that their leadership roles only emerge if they meet these role expectations.

Importance of Improving the Student Leader's Self-Esteem It is crucial to consider that various factors can influence the

student leaders' level of self-esteem. However, developing and improving self-esteem is essential in an individual's life, specifically in student leaders. Positive self-esteem is a pivotal factor in the development and success of student leaders. Research has shown that self-esteem is essentially connected with effective leadership (Coetzee et al., 2006). This implies that self-esteem is a fundamental attribute for student leaders, enabling them to have a successful performance in educational or organizational contexts. Student leaders with positive self-esteem exhibit a high trust in their capabilities and are comfortable taking on challenges. (Pandey & Chalise, 2017). Another study explains that cultivating healthy self-esteem among student leaders results in academic achievement, social development, student professionalism, and personal growth (Gebresilase & Zhao, 2023). Meanwhile, low self-esteem in leaders may cause extensive self-doubt, self-criticism, and psychological distress, such as anxiety, stress, and depression, influencing their leadership effectiveness (Endris et al., 2022; Nguyen et al., 2019). Hence, this association between self-esteem and leadership competence is important in understanding the impact of self-esteem on effective leadership among student leaders.

The Purpose of this Study

The pioneering study of the impostor phenomenon, conducted primarily with female subjects, represents a foundational exploration into this psychological phenomenon. However, there has been a noticeable gap in research concerning student leaders, thereby limiting researchers' comprehensive understanding of the impostor phenomenon across diverse demographic groups and its impact on self-esteem. As society progresses towards greater inclusivity, it is crucial to broaden the scope of research to encompass the experiences of student leaders to understand the mentioned psychological phenomenon. Moreover, discussing the impostor phenomenon holds significant importance beyond academic inquiry. It serves as a catalyst for individuals to acknowledge and confront their feelings of inadequacy and self-doubt, fostering an environment where individuals can validate their experiences and acquire coping strategies to navigate these challenging emotions effectively.

Furthermore, this research aims to delve into the correlation between the impostor phenomenon and self-esteem among student leaders to broaden the understanding of the impostor phenomenon among various social identities. The researchers believe that by openly addressing the impostor phenomenon, society can reduce the stigma associated with these feelings, reassuring individuals that they are not alone in their struggles. Moreover, recognizing the impostor phenomenon can have profound personal benefits. It enables individuals to cultivate greater self-awareness and resilience as they work to manage these feelings and gradually build confidence in their abilities over time. This process of introspection and growth is essential for personal development and professional success. In addition, understanding how the impostor phenomenon affects student leaders as to how they manage their team as leaders, as well as how the impostor phenomenon shifts the view of student leaders towards their goal, and how they acknowledge their personal achievements as well as their team.

Statement of the Problem

The study aims to delve into the relationship between the impostor phenomenon and the self-esteem of male academic professionals. Furthermore, this research aims to answer the following research problems:

1. What are the demographic profiles of the research respondents based on the following:
 - 1.1 Year level
 - 1.2 Assigned sex at birth
 - 1.3 Accredited student organization within the Far Eastern University for the academic year 2023 -2024
2. What are the mean and standard deviation of the impostor phenomenon of student leaders?
3. What are the mean and standard deviation of the self-esteem of student leaders?
4. Is there a correlation between the impostor phenomenon and the self-esteem of student leaders?

Hypotheses

The researchers proposed the following hypotheses for this study:

Ho. There is no significant correlation between the impostor phenomenon and the self-esteem of student leaders.

Ha. There is a significant correlation between the impostor phenomenon and the self-esteem of student leaders?.

Scope and Delimitation

The main intent of the quantitative correlational study is to assess the relationship between the impostor phenomenon and the self-esteem of student leaders. The researchers focus on measuring the level of the impostor phenomenon and self-esteem. The researchers consider all of the students who are members of the accredited organization within the Far Eastern University - Manila, for the academic year 2023–2024, as student leaders. The characteristics of the impostor phenomenon and factors that contributed to experiencing it were included in the related literature and studies to further explain this phenomenon. Moreover, it included types of self-esteem, factors, and the importance of self-esteem to student leaders.

Furthermore, the study is limited to the correlation between the impostor phenomenon and the self-esteem of student leaders in Far Eastern University - Manila. The factors, types, and importance of the impostor phenomenon and self-esteem were only discussed in the literature review; however, the researchers did not further explore and identify these factors and types experienced by student leaders. Additionally, this research study included 100 respondents. All respondents of the study are part of any FEU-accredited student organizations. Moreover, they are student leaders and recruited from the Far Eastern University - Manila. The research spans a timeframe from January to May 2024, in the academic year 2023-2024.

II. METHODS

This section of the paper will outline the research methodology utilized in the study, including the research design, participants, research instrument, data collection procedure, and data analysis methods.

Research Design

The researchers have decided to employ a quantitative approach to examine the relationship between the Impostor phenomenon, and the self-esteem amongst student leaders in Far Eastern University - Manila. Opting for this method, they aim to explore their subject matter through the lens of numerical data collection and analysis. Quantitative research is the process of collecting and analyzing mathematical data as it can be utilized to discover patterns, ascertain predictions, and make inferences about a larger population or a diverse group of people or entities (Bhandari, 2020; Sreekumar, 2023).

By collecting this mathematical data, the researchers intend to uncover patterns, trends, and relationships that exist within. These patterns might reveal correlations between different variables or shed light on how certain factors influence outcomes. Moreover, the researchers see quantitative research as a means of making predictions about future occurrences or behaviors. Perhaps, most importantly, the quantitative approach allows the researchers to draw broader conclusions beyond their chosen sample.

In light of the chosen research method, the proponents will also utilize the correlational design. The correlational research design examines the relationships between variables without the interference, and manipulation of the researcher (Bhandari, 2021). According to Cherry (2023), there are three possible results to a correlational study, positive correlation is wherein the variables are unidirectional and the correlation coefficient is close to +1.00 indicating a strong positive correlation. Negative correlation is wherein the variables are bi-directional, and the correlation coefficient is close to -1.00 indicating a strong negative coefficient, and lastly, no correlation is where there is no relationship between the two variables with a correlation coefficient indicating 0.

Respondent

Students who are members of an organization and actively participate in their duties and responsibilities can be leaders, as they motivate and support fellow students toward achieving shared goals. However, in several existing studies exploring the impostor phenomenon among various individuals, researchers found that leaders are among the most vulnerable groups to experience the impostor phenomenon. According to Kark et al., (2021), a leader with impostor phenomenon believes that there are standards and expectations associated with the formal leadership role that one must acquire to be considered a leader. If one fails to meet those expectations, they may perceive themselves, including their experiences and skills, as deceiving others or a “fraud. Furthermore, a leader’s performance is dependent on their self-esteem, with various factors such as gender and social expectations, affecting their leadership traits.

Furthermore, the researchers chose student leaders as a population for this study. Addressing issues concerning the impostor phenomenon and self-esteem among student leaders can broaden the understanding and address difficulties that create a consequence to the lives of student leaders and adversely affect their leadership performance. In addition, the study was conducted at the Far Eastern University – Manila. The Far Eastern University – Manila, also referred to as FEU,

is a private non-sectarian university located in Manila, Philippines (Far Eastern University, n.d.). Hence, the study explores student leaders who are part of an accredited student organization, for the academic year 2023 – 2024, within FEU-Manila as the population of the study.

The researchers contacted several accredited student organizations within the Far Eastern University to reach a wider range of individuals who would meet the selection criteria. Furthermore, according to Nikolopoulou (2022), the inclusion criteria are necessary for the study to produce consistent and accurate data from reliable respondents. Thus, to produce a quality result that will answer the research question of the study, the researchers set the following eligibility criteria for this study.

Respondents who met the following criteria are included in the study:

1. The respondents must be bonafide students at Far Eastern University – Manila.
2. The respondent must be 18 years old and above.
3. The respondent must be a student leader in any accredited organization under FEU – Manila for the school year 2023-2024.

Sampling Technique

The researchers utilized the purposive sampling technique in order to obtain a sample population non-randomly by targeting a particular individual that fits the inclusion criteria in the study. The researchers aimed to explore the relationship between the impostor phenomenon and the self-esteem among participants “on purpose”. According to Nikolopoulou (2022), purposive sampling is a non-probability technique wherein respondents are selected based on specific criteria set by researchers to have access to the information that would best answer research questions.

Research Instrument

The researchers utilized an online survey, using a Microsoft Form application, to collect data from participants, which included detailed information on the research purpose, potential risks, benefits, confidentiality assurances, termination procedures, researcher contact details, and a data privacy agreement. The survey commenced with a consent form where participants agreed to the survey’s terms. The survey covers the respondents’ age.

To assess the presence of the IP among participants, the researchers employed the Clance Impostor Phenomenon Scale (CIPS), comprising twenty items measured on a five- point Likert scale.

TABLE 1. Five-Point Likert Scale for Clance Imposter Phenomenon Scale (CIPS)

Likert Scale	Likert-Scale Interval	Interpretation
1	1.00 – 1.80	Not at all true
2	1.81 – 2.60	Rarely
3	2.61 – 3.40	Sometimes
4	3.41 – 4.20	Often
5	4.21 – 5.00	Very true

This scale, developed by Pauline Rose Clance, assists individuals in evaluating their IP experiences. Clance’s initial

study, conducted with Imes in 1991, focused on high-achieving women. Since then, the CIPS has been widely utilized by researchers due to its reliability in distinguishing between impostors and non-impostors. Various studies have employed this scale across different populations such as students, professionals, and individuals with diverse social identities.

Scores on the CIPS can range from twenty (20) to one hundred (100), with higher scores indicating more severe IP experiences (Freeman et al., 2022). The scoring and interpretation pertaining to the level of impostor phenomenon are available on Pauline Rose Clance’s website.

In addition to the CIPS, the researchers employed the Rosenberg Self-Esteem Scale (RSES). This scale comprises ten items and utilizes a four-point Likert scale format, ranging from strongly agree to strongly disagree.

TABLE 2. Four-Point Likert Scale for Rosenberg Self-Esteem Scale (RSES)

Likert-Scale	Likert- Scale Interval	Interpretation
1	1.00 – 1.74	Strongly Disagree
2	1.75 – 2.49	Disagree
3	2.50 – 3.24	Agree
4	3.25 – 4.00	Strongly Agree

Originally proposed by Morris Rosenberg in 1965, the RSES is highly recognized in psychological research, with over forty thousand citations on Google Scholar as of February 2020. It is considered the most widely used instrument for measuring self-esteem utilizing the RSES (Monteiro et al., 2022). Mental health professionals frequently employ the RSES with both pre-teen and adult populations, as it demonstrates reliability among students populations aged twelve and above (Miller, 2020).

To evaluate respondents’ self-esteem levels, the researchers utilized the RSES, with scoring criteria as provided by the scale’s proponent. This interpretation, cited in Jones (2002), categorizes respondents’ self-esteem as follows:

TABLE 3. Scoring Criteria for Rosenberg Self-Esteem Scale (RSES)

Score	Interpretation	Description
$10 \leq x \leq 25$	Low Self-Esteem	Indicate low self- esteem, characterized by feelings of incompetence, inadequacy, and difficulty in coping with life challenges.
$26 \leq x \leq 29$	Average (Medium) Self-Esteem	The score suggests average self-esteem, with respondents experiencing fluctuations between feelings of approval and rejection.
$30 \leq x \leq 40$	High Self-Esteem	The score reflects high self-esteem, where respondents often exhibit self- judgment of value, confidence, and competence.
> 40	Intense	The respondent often experiences imposter feelings.

Moreover, to adhere to Dr. Pauline Rose Clance’s guidelines, the researchers sought permission to utilize the CIPS, respecting her intellectual property rights. They ensured by using Microsoft Forms (MS Forms), restricting access to Far Eastern University students only, thereby safeguarding the scales’ integrity and protecting the rights of their proponents.

Data Gathering Procedure

The data-gathering procedure was conducted online to obtain the needed data for the study. The data gathering started during the third week of March 2024 and ran until the second week of April 2024. Furthermore, the following will discuss the procedure of data gathering for this study:

1. Before gathering the needed data, the researchers of this study seek authorization from Dr. Pauline Rose Clance regarding the utilization of the Clance Impostor Phenomenon Scale (CIPS). The Clance Impostor Phenomenon Scale (CIPS) was used to determine the level of impostor phenomenon of student leaders.
2. With the help of the research adviser, the researchers of this study submitted a request for a permit to conduct a study within the university to Far Eastern University's Center for Learning Enrichment and Research for Students.
3. After obtaining approval from the proponent of the mentioned scale, the researchers combined the Clance Impostor Phenomenon Scale (CIPS) and Rosenberg's Self-Esteem Scale (RSES) in an online survey format using an application Microsoft Form.
4. Moreover, after combining the two mentioned scales in an online survey form, the researchers submitted the form to their research adviser to seek approval for dissemination.
5. After the approval of the research adviser, the researchers disseminated the online survey to the targeted participants. Furthermore, the researchers of this study approached student leaders, the respondents, through various educational platforms and social media communication, including Microsoft Teams and electronic mail. Moreover, during the dissemination of the online survey, the researchers thoroughly communicated the details of the study by explaining its overview, objectives, and data privacy.
6. To broaden the reach of the data-gathering process of this study, the researchers submitted a request letter to all accredited student organizations to have an endorsement to their respective organization.
7. Furthermore, the researchers reached out to students and distributed publication material and flyers to recruit student leaders who are part of any accredited student organizations under Far Eastern University – Manila
8. In addition, ethical considerations were adhered to and observed during the conduct of the study. Prior to administering the online survey, the researchers sought permission from participants through a consent form. Participants were duly informed that their involvement was voluntary and that they retained the right to withdraw at any stage of the study. Additionally, they were provided with information regarding the research objectives, potential discomforts or risks, survey duration, and confidentiality measures.
9. The consent form emphasized that vital personal details of participants, including their names, addresses, and contact information, would not be incorporated into the study. It was assured that participants' identities would be treated with the highest level of confidentiality in accordance with Republic Act 10173 of the Philippines, also known as the Data Privacy Act of 2012.
10. To mitigate the risk of plagiarism, the researchers utilized Turnitin to assess the similarity index and prevent unintentional duplication of content.
11. Furthermore, the researchers received guidance from their research adviser, a licensed professional teacher with a post-graduate degree or Masteral in Public Affairs, throughout the study's development. All correspondence and decisions made by the researchers were reviewed and approved by their professors.
12. Lastly, the researchers are dedicated to their commitment to preserving the confidentiality and privacy of the respondents' information. As part of the pledge of the researchers to their participants, they took necessary precautions to safeguard the information of the participants. Following the analysis of the data and submission of the paper to the panelist and subject professor, the researchers promptly deleted the Microsoft survey form and all associated data they had gathered.

Data Analysis

The researchers utilized purposive sampling to gather respondents from the population. Purposive sampling is a non-random technique used to select a group of individuals based on certain characteristics or attributes from a population of interest (Purposive sampling, n.d.). The researchers surveyed [number] respondents to obtain the data needed.

Furthermore, after the appropriate sample size is obtained, the researchers measure the level of impostor phenomenon of each individual by conducting a twenty-item Likert scale of Clance Impostor Phenomenon Scale (CIPS). Following the scoring of the CIPS: if an IP score is equal to or below 40, a person experiences low levels of fraudulence; if an IP score is in the range of 41 to 60, then, they have moderate characteristics of impostor feelings, if it is in the range score of 61 to 80, the person is frequently experiencing impostor phenomenon, and; if the score is above 80, they often and highly experience impostor phenomenon. This implies that the higher the score is, the more characteristics of the impostor phenomenon an individual suffers (Clance, 1985). Additionally, the mean of the total scores of the sample size was computed to determine the overall level of the impostor phenomenon and find its equivalent in the IP scoring. Moreover, the sample mean is needed to determine the standard deviation, which measures the dispersion of scores from the mean (Bhandari, 2021).

A 10-item Rosenberg Self-Esteem Scale (RSES) measures the level of self-esteem of the respondent by evaluating how positive and negative they feel about themselves (Fetzer Institute, n.d.). The researchers calculate each score and follow the interpretation of RSES scores. According to Rosenberg (1965, as cited in Jones, 2002), a score ranging from 10 to 25 implies that a respondent has low self-esteem and often has feelings of incompetence. If a respondent got a score of 26 to 29, they have a moderate level of self-esteem, and experience shifting feelings of approval and rejection, and; a score ranging from 30 to 40 means that a respondent has high self-esteem and often feels confident and competent in themselves. Furthermore, the sample mean is computed to measure the overall level of self-esteem the sample size based on the

interpretation of the Rosenberg scale. The standard deviation is also determined to illustrate the closeness of the scores as seen in the normal distribution curve.

The researchers formulated two hypotheses, the null and alternative hypothesis to determine the correlation between the impostor phenomenon and the self-esteem of the respondents. The null hypothesis stated that there is no significant relationship between the impostor phenomenon and the self-esteem of student leaders, and the alternative hypothesis stated that there is a significant correlation between the impostor phenomenon and the self-esteem of student leaders

Furthermore, the researchers utilized the Pearson correlation coefficient, to measure the relationship between two variables. This is a statistical tool used to calculate the strength of the relationship between two variables through its correlation coefficient value (Srivastav, n.d.). The correlation coefficient ranges from -1 to 1, wherein 1 implies a strong negative relationship, in which as one variable increases, the other one decreases. A value of 1 indicates a strong positive relationship, in which both variables change in the same direction. If the value is 0, it imposes no correlation between the variables (Glen, n.d.).

Additionally, Jamovi is a free and accessible statistical software for analyzing the data gathered. It is a tool that provides analyses for Pearson R Correlation, which was used to determine the relationship between the variables, impostor phenomenon, and self-esteem. Jamovi is also utilized to calculate the mean of impostor phenomenon scores and self-esteem scores, as well as to visualize the distribution of data.

III. RESULTS

This section of the study presents and explains the findings from one-hundred student leaders, pertaining to the assessment of the level of the impostor phenomenon and self-esteem and its correlation.

1. Demographic Profile

TABLE 4.1. Year Level of the Respondents

Year Level	Frequency	Percentage
1st Year	17	17%
2nd Year	58	58%
3rd Year	19	19%
4th Year	6	6%
5th Year	0	0%
Total	100	100%

Table 4.1 presents the frequency and percentage of distribution of participants' year level, wherein the participants per year level is as follows: 1st year has 17 participants or 17% of the total respondents; second-year students have 58 participants or 58% of the total respondents; third-year students have 19 participants or 19% of the total respondents, and; fourth-year students have six (6) participants or 6% of the total respondents. The total number of respondents is equal to 100 students.

Table 4.2 presents the frequency and percentage of participants' sex assigned at birth, wherein the male participants are 11 students or 11% of the total population, and the female participants are 89 students or 89% of the total population.

TABLE 4.2. Sex Assigned at Birth

Year Level	Frequency	Percentage
Assigned Female at Birth (AFAB)	89	89%
Assigned Male at Birth (AMAB)	11	11%
Intersex	0	0%
Total	100	100%

TABLE 4.3. Types of Accredited Organizations within the Far Eastern University - Manila

Type of Accredited Organization within the Far Eastern University - Manila	Frequency
Student Council Organizations	37
Academic Organizations	49
University-Wide Organizations	55
Cultural Organizations	2
Total	143

Table 4.3 shows the various types of accredited organizations within the Far Eastern University – Manila. Although this research has only 100 respondents, the respondents are allowed to represent several organizations that they are part of. Several organizations at the Far Eastern University – Manila allow their students to have multiple organizations.

Furthermore, the student council organizations govern specific institutions of Far Eastern University – Manila, this includes Institute of Accounts, Business, and Finance; Institute of Arts and Sciences Student; Institute of Education; Institute of Health Sciences and Nursing; Institute of Architecture and Fine Arts; Institute of Tourism and Hotel Management; FEU Makati. Meanwhile, academic organizations govern specific programs at the university. The university-wide organizations are organizations that have specific goals, purposes, and advocacies for students and the community. Lastly, the cultural organizations are organizations that aims to exhibit and foster the Philippine culture.

TABLE 4.3.1 Student Council Organization of the Respondents

Student Council Organizations	Frequency	Percentage
FEU Central Students Organization (FEUCSO)	13	13%
Institute of Accounts, Business, and Finance Student Council (IABFSC)	1	1%
Institute of Arts and Sciences Student Council (IASSC)	16	16%
Institute of Education Student Council (IESC)	2	2%
Institute of Health Sciences and Nursing Student Council (IHSNSC)	4	4%
Institute of Health Sciences and Nursing Student Council & FEU Central Students Organization (IHSNSC & FEUCSO)	1	1%
Not a member of any Student Council Organization	63	63%
Total	100	100%

Table 4.3.1 presents the frequency and percentage of distribution of participants' affiliation to the Student Council Organization. The members of each organization are as follows: FEUCSO has 13 members among respondents, or 13% of the total respondents. IABFSC has one (1) member among respondents, with a percentage of 1 of the total respondents. IASSC has 16 members among respondents, or 16% of the total

respondents. IHSNSC has four (4) members among respondents, or 4% of the total respondents. Meanwhile, one (1) participant is affiliated with both FEUCSO and IHSNSC, which is 1% of the total respondents. Lastly, 63 of the participants are not a member of any Student Council Organization. However, these 63 students are still participants as they are part of other accredited organizations within the Far Eastern University – Manila.

TABLE 4.3.2. Academic Organization of the Respondents

Academic Organization	Frequency	Percentage
Biological Science Society	3	3%
Communication Society	3	3%
Institute of Internal Auditors Student Chapter	1	1%
Interdisciplinary Studies Society	2	2%
International Studies Society	2	2%
Junior Marketing Association	3	3%
Junior Philippine Institute of Accountants	1	1%
Mathematics Society	3	3%
Medical Technology Society	4	4%
Nursing Society	3	3%
Pacific Asia Travel Association FEU Chapter	1	1%
Political Science Society	3	3%
Psychology Society	19	19%
Not a member of any academic organization	52	52%
Total	100	100%

Table 4.3.2 presents the frequency and percentage of distribution of participants' affiliation to Academic Organizations. The following are the affiliations of each participant to each Academic Organization: Biological Science Society has three (3) members among the respondents or 3% of the total population. Communication Society has three (3) members among the respondents, which is 3% of the total population. Moreover, the Institute of Internal Auditors Student Chapter has only one member among the respondents, or 1% of the total population. The Interdisciplinary Studies Society has two (2) members among the respondents, or 2% of the total population. International Studies Society also has two (2) members among the respondents, or 2% of the total population, while the Junior Marketing Association has three (3) members among the respondents, with a percentage of 3% of the total population. On the other hand, the Junior Philippine Institute of Accountants has only one (1) member among the respondents, 1% of the total population. Mathematics Society has three (3) members among the respondents, or 3% of the total population. Medical Technology Society has four (4) members among the respondents, or 4% of the total population. Meanwhile, the Nursing Society has three (3) members among the respondents or 3% of the total population; the Pacific Asia Travel Association FEU Chapter has only one (1) member among the respondents, which is 1% of the total population. Political Science Society has three (3) members among the respondents, or 3% of the total population, and the Psychology Society has 19 members among the respondents, or 19% of the total population. Lastly, 52 students have no affiliations to any Academic Organization, which is 52% of the 100 respondents.

TABLE 4.3.3. FEU-Wide Organization of the Respondents

FEU-Wide Organization	Frequency	Percentage
Buklurang Mag-aaral sa Filipino (BUMAFIL)	3	3%
FEU Anti-Bullying Core Group	5	5%
FEU College y Club	3	3%
FEU International Students Organization	4	4%
FEU PEERS Manila	2	2%
FEU Sexuality and Gender Alliance (FEU SAGA)	3	3%
FEU Tamaraws FX (TAMS FX)	1	1%
ONE FEU MUSIC and RECORDS	2	2%
Red Cross Youth Council (RCYC FEU Chapter)	5	5%
Scholars Society	2	2%
Tamaraw Volunteer Manila (TAMVOL Manila)	8	8%
Young Women's Christian Association	1	1%
Tamaraw Volunteer Manila (TAMVOL Manila) & Tamaraws FX (TAMS FX)	1	1%
Tamaraw Volunteer Manila (TAMVOL Manila) & Red Cross Youth Council (RCYC FEU Chapter)	1	1%
Tamaraw Volunteer Manila (TAMVOL Manila) & Scholar's Society	2	2%
Tamaraw Volunteer Manila (TAMVOL Manila) & FEU Anti-Bullying Core Group	1	1%
Scholars Society & Tamaraw Volunteer Manila (TAMVOL Manila)	1	1%
FEU Tamaraws FX (TAMS FX) & FEU PEERS Manila	1	1%
FEU Sexuality and Gender Alliance (FEU SAGA) & Tamaraw Volunteer Manila (TAMVOL)	1	1%
FEU Sexuality and Gender Alliance (FEU SAGA) & FEU Film Society	1	1%
FEU PEERS Manila & FEU Anti-Bullying Core Group	1	1%
FEU Anit Bullying Core Group & ONE FEU MUSIC and RECORDS	1	1%
Red Cross Youth Council (RCYC FEU Chapter), FEU Drug Abuse Prevention Core Group (DAPCG), & Scholars Society	2	2%
Tamaraw Volunteer Manila (TAMVOL Manila), Red Cross Youth Council (RCYC FEU Chapters), & FEU PEERS Manila	2	2%
Not a member of any FEU-Wide Affiliated Organization	45	45%
Total	100	100%

Table 4.3.3 presents the frequency and percentage of distribution of participants' affiliation to FEU-Wide Organization. The following are the affiliation of each participant to each FEU-Wide Organization: Buklurang Mag-aaral sa Filipino (BUMAFIL) has three (3) members among the respondents or 3% of the total population; FEU Anti-Bullying Core Group has five (5) members among the respondents or 5% of the total population; FEU College y Club has three (3) members among the respondents or 3% of the total population; FEU International Students Organization has four (4) members among the respondents or 4% of the total population; FEU PEERS Manila has two (2) members among the respondents or 2% of the total population; FEU Sexuality and Gender Alliance (FEU SAGA) has three (3) members among the respondents or 3% of the total population; FEU Tamaraws FX (TAMS FX) has

only one (1) member among the respondents or 1% of the total population; ONE FEU MUSIC and RECORDS has two (2) members among the respondents or 2% of the total population; Red Cross Youth Council (RCYC FEU Chapter) has five (5) members among the respondents or 5% of the total population; Scholars Society has two (2) members among the respondents or 2% of the total population; Tamaraw Volunteer Manila (TAMVOL Manila) has eight (8) members among the respondents or 8% of the total population; Young Women's Christian Association has only one (1) member among the respondents or 1% of the total population. Additionally, some participants are affiliated with two FEU-Wide Organizations, with a total of 11 participants or 11% of the total respondents. Meanwhile, four (4) respondents belong to three FEU-Wide Organizations, or 4% of the total respondents. Lastly, 45 of the respondents are not affiliated with any FEU-Wide Organization, and 45% of the total respondents are not affiliated with any FEU-Wide Organization.

TABLE 4.3.4. Cultural Organization of the Respondents

Cultural Organization	Frequency	Percentage
FEU Guides	1	1%
FEU Chorale	1	1%
Not Affiliated to Cultural Organization	98	98%
Total	100	100%

Table 4.3.4 presents the frequency and percentage of distribution of participants' affiliation with Cultural Organizations. The following are the affiliations of each participant to each Cultural Organization: FEU Chorale has one (1) member among the respondents with 1% of the total population, and FEU Guides also has one (1) member among the respondents or 1% of the total population. Lastly, 98 students, or 98% of the respondents do not belong to any Cultural Organizations.

TABLE 5. Mean and Standard Deviation of Impostor Phenomenon

	N	M	SD	Level of IP
Impostor Phenomenon	100	70.6	15.5	Frequently

Table 5 presents the level of impostor phenomenon of student leaders. The 100 respondents received a mean of 70.6 and a standard deviation of 15.5. According to the twenty-item Clance Impostor Phenomenon Scale scoring, the mean of the impostor phenomenon falls within $61 \leq x \leq 80$. Therefore, it implies that the 100 student leaders frequently experience the impostor phenomenon, with an SD = 15.5, which shows how dispersed the IP scores are around the mean.

TABLE 6. Mean and Standard Deviation of the Self-Esteem

	N	M	SD	Level of SE
Self-Esteem	100	25.1	5.57	Low

Table 6 illustrates the level of self-esteem among the 100 student leaders. The mean self-esteem score is 25.1, with 5.57 as its standard deviation. In the interpretation of the ten-item Rosenberg Self-Esteem scale, the mean gathered from the respondents indicates low self-esteem. Moreover, the standard

deviation of 5.57 reflects how the SE scores of student leaders spread out around the mean.

Relationship between the Impostor Phenomenon and Self-Esteem

TABLE 7. Pearson's R Correlation of the Impostor Phenomenon and Self-Esteem

Variables	Pearson's R	df	p-value	N
Impostor Phenomenon and Self Esteem	-0.679	98	<.001	100

The table displays the correlation between the impostor phenomenon and self-esteem among student leaders at Far Eastern University in Manila using the Pearson R correlation. The correlation coefficient is equal to -0.679. The negative value of the correlation coefficient falls within the range of -0.5 to -0.7, implying that the relationship between the two variables is a moderate and negative correlation. In addition, the p-value of <0.001 is less than the alpha level of 0.05. This indicates that the null hypothesis is rejected. Hence, the finding of the study is that there is a relationship between the impostor phenomenon and self-esteem among student leaders; moreover, it is negative and moderate.

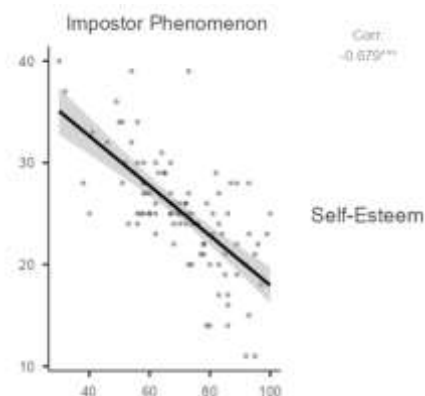


Figure 1. Scatter Plot of the Impostor Phenomenon and Self-Esteem

Figure 1 shows a scatter plot with a linear direction of the relationship between the impostor phenomenon and the self-esteem among the 100 student leaders. The plot has a negative slope, wherein its direction moves from left to right and top to bottom. This proves that the direction of the relationship is negative, implying that as the impostor phenomenon score increases, the self-esteem decreases. Furthermore, the scatter plot displays less dispersed or scattered data, which results in the creation of a trend that reflects an inversely proportional relationship between the impostor phenomenon and self-esteem scores.

VI. DISCUSSION

The Demographic Profile

1. Year Level

The highest proportion of participants was observed among second-year students, constituting 58% of the total respondents. This substantial representation suggests a notable engagement of second-year students with the research topic. The increased participation of this cohort is described as a critical period in their collegiate lives as potential confusion ensues such as the

purpose of their chosen course, compatible career which could leave them overwhelmed with their pristine actuality (Noel-Levitz, Inc, 2011)

Equally, first-year students comprised 17% of the total respondents, exhibiting the second-lowest participation rate among the surveyed year levels. This finding might be indicative of the initial adjustment period experienced by first-year students, wherein they are acclimating to the demands and challenges of university life (Akhtar & Akhtar, 2024). As a result, their involvement in research endeavors could be comparatively limited during this transitional phase.

Third-year students constituted 19% of the total respondents, indicating a moderate level of engagement with the research study. It is plausible that students in their third year have established a degree of familiarity with their academic capabilities as well as the establishment of their self-awareness (University of Wisconsin–Madison, 2014)

Fourth-year students, representing 6% of the total respondents, exhibited the smallest proportion within the surveyed population. The reduced participation of fourth-year students may be attributed to various factors, such as academic commitments, or prioritizing graduation requirements potentially impacting their perceived interest or participation in exploring the themes addressed in the research study.

2. *Assigned sex at birth*

According to Votaw (2020), there is no substantial difference in the willingness to help between women and men. However, our survey data reveals a nuanced picture: while 46% of women were more likely to volunteer, this percentage only slightly exceeds the 42% of men expressing willingness. Yet, when examining participation in surveys specifically, our findings suggest a notable gender disparity. Women exhibit greater willingness to participate and complete surveys compared to men, a trend supported by Nuzzo and Deaner (2023). This inclination towards participation aligns with broader behavioral patterns, as women are more likely to engage in community-oriented behaviors such as volunteering, as noted by Becker & Eagly (2004) and Eagly & Becker (2005). These differences may stem from underlying psychological factors, with women often embodying characteristics associated with their connective selves, such as empathy and emotional understanding, as outlined by Smith (2005). Additionally, women's tendency to engage in information exchange, particularly through online platforms, contributes to their higher participation rates in surveys, as highlighted by Jackson et al. (2001) and further supported by Becker (2022). This propensity is particularly evident in electronic mail (e-mail) or web surveys, where women are more likely to respond compared to men, as evidenced by Becker's research (Becker, 2021; Becker et al., 2019).

3. *Accredited Student Organization*

An engagement in extracurricular activities within the campus, including active participation in student organizations, stands as a crucial aspect for students to further their well-being by fostering the search for knowledge, honing their skills, and cultivating competencies (Ebede, 2015). Building upon this foundation, the significance of supplementary activities in complementing traditional learning environments learning is

underscored, positing them as catalysts for the development of not only essential skills and knowledge but also for fostering intricate interpersonal connections amongst club members and fellow students (Hood, 1984; Martin, 2000).

In this study, the distribution of participants across various student organizations highlights the active engagement of students in campus life. The presence of individuals affiliated with Student Council Organizations (SCOs), Academic Organizations, FEU-Wide Organizations, and Cultural Organizations underscores the multifaceted nature of extracurricular involvement. This participation reflects the diverse interests and pursuits of students beyond academic aspects, it offers opportunities for personal growth, skill development, and community engagement. Moreover, the findings in the study validate the benefits of involvement in clubs and organizations, elucidating a positive link between such participation and the cultivation of competencies, the nurturing of mature interpersonal relationships, active cultural engagement, strategic career planning, effective life management strategies, and heightened levels of educational balance between academics and personal lives (Foubert & Grainger, 2006).

These insights underscore the complete value of extracurricular engagement in augmenting students' educational journey, offering them opportunities for personal growth and holistic development beyond the confines of the traditional classroom setting.

Student Leaders Frequently Experienced the Feelings of Impostor Phenomenon

Student leaders have a high level of responsibility, pressure to perform, and visibility within academic settings. A study analysis explained that among particular groups, leaders are susceptible to experiencing the imposter phenomenon (KH & Menon, 2020). Therefore, these findings support the result of the study, as it indicates that the one hundred respondents obtained 70.6 of the mean score, indicating a frequent experience of the imposter phenomenon. Frequency implies that individuals have a high level of imposter phenomenon, encompassing the concept that these individuals experience fraudulence, such as acknowledging their success and proficiency as luck rather than their intellectual capability (French et al., 2008). Based on the results, student leaders experience the sentiment of intellectual fraudulence and fear of being exposed as a fraud despite their good performance, evident success, and contribution to the university or education institution. The result significantly suggests the notion that these student leaders achieve success by external standards but harbor an illusion of personal incompetence. This is similar to the findings of the study among student leaders in the science field, in which these students experience high imposter phenomenon within their transformational leadership, decreasing their self-competence in their leadership style and performance (Domínguez-Soto, 2021). Another study showed that among 200 highly skilled computer science students, 57% of the respondents experienced consistent emotions of imposter phenomenon, heightening the sentiment of self-doubt, incompetence, and dissatisfaction with their performance

(Rosenstein et al., 2020). Hence, the frequent experience of student leaders in the imposter phenomenon stresses the internal challenges they encounter, despite their success, roles, and substantial contribution in academic settings.

Moreover, a study on undergraduate medical students showed that these skilled individuals experience a high level of impostorism, reporting a strong link with anxiety, burnout, and depression within their academic responsibilities (Lawati, 2023). This can be related to the result of the study, in which student leaders' pressure to maintain success, good role models, and leadership increases their imposter phenomenon and emotional distress. This is associated with the explanation of Clance's impostor cycle, wherein a person with impostorism can trigger several adverse emotions, including massive self-doubt, worriedness, and anxiety in the process of accomplishing a task (Mak et al., 2019). Student leaders have a high achievement orientation, resulting in their extreme perfectionism and fear of failure. Studies state that individuals have various aspects in dealing with this emotional distress. However, individuals with the imposter phenomenon constantly engage in either overpreparation or succumb to initial procrastination to deal with their incompetence and self-doubt (Hutchins et al., 2017; Hutchins & Flores, 2021). Perfectionism has been linked to student leaders, it is the main driver of procrastinatory behavior, affecting their psychological well-being (Rice et al., 2012). Consequently, student leaders may react to stress, pressure, and perfectionism via excessive preparation or procrastination. The imposter phenomenon has been considered a prominent issue among high-achieving individuals, including student leaders. It is essential to consider that high levels of the imposter phenomenon among these student leaders can develop negative impacts on their leadership, academic performance, and psychological well-being. Research explained that the fear of failure and fraudulence can impact individuals' professional identity and vitality (Gallagher, 2019). Thus, comprehending the dynamics of the imposter phenomenon among student leaders is vital, particularly in organizations and leadership development programs.

Student Leaders have Low Self-Esteem

Leaders who possess robust self-confidence can inspire both themselves and their team members, as noted by Srivastava et al. (2022). They exhibit assurance in their abilities to accomplish objectives and encourage their team members to excel, as highlighted by Wen et al. (2021). Moreover, strong self-esteem enables leaders to motivate others through offering constructive feedback and aiding in their skill development, as emphasized by Vašašová et al. (2021). Consequently, this research presents findings that differ from the conclusions of the study in question, with a mean of 25.1 and its standard deviation of 5.57 representing a low self-esteem according to the Rosenberg Self-Esteem scale (RSES).

The modest correlations between self-esteem and school performance do not indicate that high self-esteem leads to good performance. Instead, high self-esteem is partly the result of good school performance (Baumeister et al., 2003). (Ahmad et al., 2010) conducted a study that revealed that there was no

significant relationship between self-concept and student leaders' academic achievements. The correlation between self-concept and academic achievement is also not significant ($r = 0.06, p = 0.950$) with a population of 106 students. Undeniably, the examination results reflect the students' achievement in academic assessment, and it is also a continuous process of self-development. Nevertheless, the study results revealed that there was no significant relationship between self-concept and academic achievement.

There is a significant relationship between the impostor phenomenon and the self-esteem of student leaders.

The research of this study explored the relationship between the impostor phenomenon and the self-esteem of student leaders at Far Eastern University – Manila for the academic year 2023 – 2024. Using the Pearson R Correlation, the result found that the two variables negatively correlate with each other. Clance and Imes (1978) propose that individuals experiencing the impostor phenomenon, also known as impostorism, encounter difficulties in acknowledging their achievements. This cognitive distortion, as expounded in their seminal work, leads to a pervasive sense of self-doubt and inadequacy, particularly prominent among high-achieving women. The hesitance to embrace personal successes fosters negative self-assessment, impeding the development of healthy self-esteem. Furthermore, Clance illustrated the Impostor Cycle in 1985 to show how individuals experienced the impostor phenomenon in a cycle.

Impostor as a Cycle

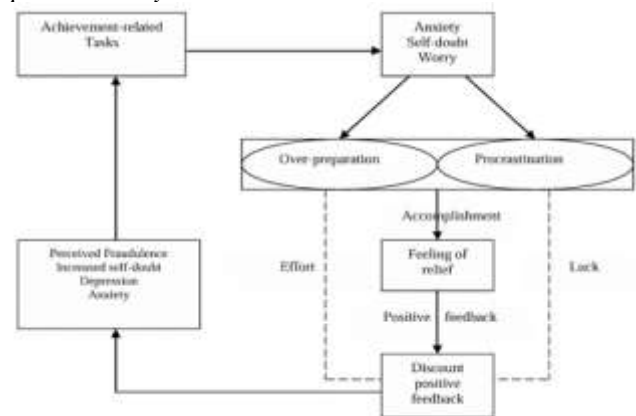


Figure 2. Diagram Illustrating the Impostor Cycle based on Clance (1985).

The impostor cycle, a seminal theoretical construct developed by Dr. Clance and Dr. Imes, provides insight into the persistence of the impostor phenomenon within individuals, despite ample evidence of their competence and skill (Goldsmith, 2018). This cycle begins when an individual with an impostor phenomenon encounters achievement-related tasks, such as new job responsibilities or academic endeavors, triggering several adverse emotions, including anxiety, self-doubt, and worriedness. Subsequently, individuals may respond to this anxiety by either engaging in excessive preparation or succumbing to initial procrastination (Chrisman et al., 1995; Clance & Imes, 1978, Thompson et al., 2000; cited in Pool, 2022).

Subsequently, individuals may respond to this anxiety by either engaging in excessive preparation or succumbing to initial procrastination. Moreover, upon task completion, individuals may initially feel relieved and accomplished, but these positive emotions are short-lived. Despite receiving positive feedback about their successful completion of the task, impostors refuse to attribute their success to their abilities. They reject positive affirmations about their contributions because such messages conflict with their perception of how success is achieved. To emphasize, individuals grappling with impostor feelings often struggle to internalize positive feedback regarding their achievements. Instead, they attribute their success to external factors, such as hard work or luck, perpetuating the impostor cycle (Vian, 2021).

Moreover, individuals harboring impostor feelings often maintain rigid beliefs that their accomplishments are not indicative of their genuine ability, but rather the result of external circumstances. This connection of beliefs about success mechanisms and perceptions of the role of effort or luck reinforces the cyclical nature of the impostor phenomenon. Furthermore, when an individual faces new achievement-related tasks, the resurgence of self-doubt and anxiety perpetuates the impostor cycle, leading individuals to repeat the pattern of negative emotions and attributional biases. Thus, the impostor cycle operates as a self-reinforcing mechanism that sustains feelings of impostorism over time. (Chrisman et al., 1995; Clance & Imes, 1978; Thompson et al., 2000; Casselman, 1991; Want & Kleitman, 2006, p. 969; cited in Sakulku & Alexander, 2011).

Furthermore, Rosenberg's seminal contribution (1965, as cited in Fetzer Institute, n.d.) supplements this discourse by delineating low self-esteem as a consequential facet of the impostor phenomenon. According to Rosenberg's framework, individuals grappling with low self-esteem exhibit a spectrum of maladaptive cognitive and affective tendencies. These encompass a chronic sense of personal failure, characterized by recurrent self-criticism and a negative self-image. Moreover, a prevailing feeling of uselessness pervades the self-concept of individuals grappling with low self-esteem, adding a psychological burden to the emotional weight they experience.

Researchers have noted a correlation between high scores on the Clance impostor phenomenon scale and low scores on Rosenberg's Self-esteem scale, suggesting that individuals experiencing impostor feelings often have low self-esteem. Data analysis reveals that participants who frequently experience intense feelings of impostor phenomenon tend to perceive themselves as incompetent and inferior to others.

Moreover, several academic investigations underscore the vulnerability of leaders, including student leaders, to the impostor phenomenon (KH & Menon, 2020). Within academic contexts, students assuming leadership responsibilities face increased pressure to excel and maintain high standards, which can lead to self-doubt and feelings of incompetence (Lee et al., 2020). These heightened expectations influenced them to experience impostor feelings, as student leaders grapple with the perceived dissonance between their achievements and their internalized sense of competence. Moreover, the burden of leadership extends beyond mere academic performance; it

encompasses the development of leadership skills, competencies, and the attainment of desired learning outcomes. Student leaders may find themselves questioning their abilities and suitability for their roles, perpetuating a cycle of self-doubt and internal scrutiny. Furthermore, their perceived leadership efficacy and their subjective evaluation of their capabilities lead them to experience impostor feelings, making them susceptible to low self-esteem.

V. CONCLUSION

The impostor phenomenon is frequently linked to cyclical motivational issues that impact an individual's psychological emotions, including consistent anxiety, self-doubt, and negative self-talk, leading to individuals' feelings of worthlessness (Cuncic, 2022). In contrast, self-esteem is the main foundation of a person's assessment of themselves, including their values, security, and confidence in their qualities and proficiency (Reitz, 2022). To investigate the relation between these two variables, a study entitled "Called to Serve: Exploring the Relationship of Impostor Phenomenon and the Self-Esteem among Student Leaders" was performed at Far Eastern University in Manila, Philippines, to collect the experiences of student leaders and further explain the various impacts of the phenomena.

The study developed a hypothesis between the impostor phenomenon and self-esteem association and unrelatedness. Therefore, the study findings show that there is a well-established correlation between the impostor phenomenon and self-esteem among student leaders, revealing a -0.679 correlation coefficient, which is a moderate and negative correlation. The results suggest that the study rejects the null hypothesis, implying that there is a relationship between the impostor phenomenon and self-esteem among student leaders. Multiple studies explained that impostor feelings have been extremely related to self-esteem, specifically a negative correlation (Rohrman et al., 2016). This only means that the impostor phenomenon has been found to be adversely related to one's self-esteem, particularly in assessing their performance.

Additionally, based on the 100 student leaders, the study discovered a negative slope, which showed that there is an inverse relationship between the impostor phenomenon and self-esteem. This means that when impostorism increases, one's self-esteem decreases, explaining the left to right and top to bottom linear direction. According to the study by Mascarenhas et al. (2018), individuals with high impostor feelings tend to have lower self-esteem, showing negative outcomes to an individual's psychological well-being. This distress includes the feeling of intense dysphoric moods, intolerance of uncertainty, and performance dissatisfaction, resulting in one's low self-esteem.

Moreover, statistical insights derived from this review reveal a remarkable development among student leaders at Far Eastern University, Manila. Demographic analysis primarily highlights the extensive illustration of two-year students and people assigned female at birth. Moreover, a large part of the respondents no longer report to any precise scientific council, pedagogy, FEU-wide, or cultural organization. This distribution underlines the different backgrounds and different stages of

engagement within the cohort of student leaders, and suggests the capacity implications for the know-how of their tales of impostor phenomenon.

After examining the psychological dimensions, studies show a common prevalence of the impostor phenomenon among scientific leaders, characterized by an average score indicative of frequent encounters with feelings of inadequacy and self-doubt. This observation is complemented by the identity of generally low ranges of vanity within the same demographic. In addition, the poor correlation found between the impostor phenomenon and self-esteem underscores the problematic interaction between these psychological constructs, suggesting that increased impostor feelings coincide with decreased self-esteem. Consequently, this underscores the critical importance of addressing the impostor phenomenon in promoting healthier self-perceptions and enhancing trust among student leaders.

In conclusion, the research slightly points to a nuanced dynamic between the impostor phenomenon and self-esteem in the population of student leaders. These findings highlight the importance of acknowledging and addressing fraudulent sentiments for fostering positive self-perceptions and holistic well-being among science leaders. In addition, the research advocates for future research efforts and intervention techniques aimed at comprehensively understanding the underlying determinants contributing to the impostor phenomenon and devising effective tactics for enhancing resilience and self-esteem within this demographic.

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REFERENCES

[1]. Ackerman, C. E. (2018, May 23). What is Self-Esteem? A Psychologist Explains. *Positive Psychology*. <https://positivepsychology.com/self-esteem/>

[2]. Adams, D., Semaadleri, P., & Tan, K. L. (2019). Student Leadership and Development: A Panoramic view of trends and Possibilities. *International Online Journal of Educational Leadership*, 2(2), 1–3. <https://doi.org/10.22452/ijel.vol2no2.1>

[3]. Ahmad, J., Ghazali, M., & Hassan, A. (2010, December 1). The Relationship between Self Concept and Response Towards Student's

Academic Achievement among Students Leaders in University Putra Malaysia. *International Journal of Instruction*, 4(2). <https://dergipark.org.tr/en/pub/eiji/issue/5141/70055>

[4]. Akhtar, S., & Akhtar, N. (2024). Issues And Challenges of Academic Stress Among First-Year University Students: An Investigative Study. *International Journal of Social Science & Entrepreneurship*, 4(1), 133–152. <https://doi.org/10.58661/ijss.v4i1.250>

[5]. Azab, M. (2023, August 22). The history of imposter syndrome. *Psychology Today*. <https://www.psychologytoday.com/us/blog/neuroscience-in-everyday-life/202308/the-history-of-imposter-syndrome>

[6]. Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles?. *Psychological Science in the Public Interest*, 4(1), 1–44. <https://doi.org/10.1111/1529-1006.01431>

[7]. Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high Self-Esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest*, 4(1), 1–44. <https://doi.org/10.1111/1529-1006.01431>

[8]. Becker, R. (2021). The Effects of a Special Sequential Mixed-Mode Design, and Reminders, on Panellists' Participation in a Probability-Based Panel Study. *Quality and Quantity*, 55, 1–26

[9]. Becker, R. (2022). Gender and Survey Participation. An Event History Analysis of the Gender Effects of Survey Participation in a Probability-based Multi-wave Panel Study with a Sequential Mixed-mode Design. *Data. Analyses.*, 16(1), 3–8. <https://doi.org/10.12758/mda.2021.08>

[10]. Becker, R., Möser, S., & Glauser, D. (2019). Cash vs. vouchers vs. gifts in web surveys of a mature panel study – Main effects in a long-term incentives experiment across three panel waves. *Social Science Research*, 81, 221–234.

[11]. Becker, S. W., & Eagly, A. H. (2004). The heroism of women and men. *American Psychologist*, 59(3), 163–178.

[12]. Bernard, D. L., Jones, S. C. T., & Volpe, V. V. (2002). Impostor Phenomenon and Psychological Well-Being: The moderating roles of John Henryism and school racial Composition among Black College students. *Journal of Black Psychology*, 46(2–3), 195–227. <https://doi.org/10.1177/0095798420924529>

[13]. Bhandari, P. (2020, June 12). What is quantitative research? | Definition, uses & methods. *Scribbr*. <https://www.scribbr.com/methodology/quantitative-research/>

[14]. Bhandari, P. (2021, July 7). Correlational Research | When & How to use. *Scribbr*. <https://www.scribbr.com/methodology/correlational-research/>

[15]. Boudreault-Bouchard, A., Dion, J., Hains, J., Vandermeersch, J., Laberge, L., & Perron, M. (2013). Impact of parental emotional support and coercive control on adolescents' self-esteem and psychological distress: results of a four-year longitudinal study. *Journal of Adolescence*, 36(4), 695–704. <https://doi.org/10.1016/j.adolescence.2013.05.002>

[16]. Bravata, D. M., Watts, S. A., Keefer, A. L., Madhusudhan, D. K., Taylor, K. T., Clark, D. M., Nelson, R. S., Cokley, K., & Hagg, H. (2019). Prevalence, Predictors, and Treatment of Impostor Syndrome: a Systematic Review. *Journal of General Internal Medicine*, 35(4), 1252–1275. <https://doi.org/10.1007/s11606-019-05364-1>

[17]. Brown, N., & Bruce, S. E. (2016). Stigma, career worry, and mental illness symptomatology: Factors influencing treatment-seeking for Operation Enduring Freedom and Operation Iraqi Freedom soldiers and veterans. *Psychological Trauma: Theory, Research, Practice, and Policy*, 8(3), 276–283. <https://doi.org/10.1037/tra0000082>

[18]. Brown, R. P., & Pinel, E. C. (2003). Stigma on my mind: Individual differences in the experience of stereotype threat. *Journal of Experimental Social Psychology*, 39(6), 626–633. [https://doi.org/10.1016/S0022-1031\(03\)00039-8](https://doi.org/10.1016/S0022-1031(03)00039-8)

[19]. Cherry, K. (2023, December 03). What is self-esteem? *VeryWellMind*. <https://www.verywellmind.com/what-is-self-esteem-2795868>

[20]. Cherry, K. (2023, February 24). How transformational leadership can inspire others. *Verywell Mind*. <https://www.verywellmind.com/what-is-transformational-leadership-2795313>

[21]. Cherry, K. (2023, May 3). Correlation Studies in Psychology Research. *Verywell Mind*. <https://www.verywellmind.com/correlational-research-2795774>

- [22]. Clance, P. R. (1985). *The Impostor Phenomenon: When Success Makes You Feel Like A Fake*. Toronto: Bantam Books. <https://paulineroseclance.com/pdf/IPTestandscoring.pdf>
- [23]. Clance, P. R., & O'Toole, M. A. (1988). The impostor phenomenon: An internal barrier to empowerment and achievement. *Women and Therapy*, 6, 51-64. http://paulineroseclance.com/impostor_phenomenon.html
- [24]. Clance, P., & Imes, S. A. (1978). The impostor phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychotherapy: Theory, Research, and Practice*, 15(3), 241-247. <https://doi.org/10.1037/h0086006>
- [25]. Coetzee, M., Martins, N., Basson, J. S., & Muller, H. (2006). The relationship between personality preferences, self-esteem and emotional competence. *SA Journal of Industrial Psychology*, 32(2). <https://doi.org/10.4102/sajip.v32i2.233>
- [26]. Cokley, K., Awad, G., Smith, L., Jackson, S., Awosogba, O., Hurst, A., Stone, S., Blondeau, L., & Roberts, D. (2015). The roles of gender stigma consciousness, impostor phenomenon and academic self-concept in the academic outcomes of women and men. *Sex Roles: A Journal of Research*, 73(9-10), 414–426. <https://doi.org/10.1007/s1199-015-0516-7>
- [27]. Cromwell, B., Brown, N., Sanchez-Huceles, F., & Adair, F. (1990). The impostor phenomenon and personality characteristics of high school honor students. *Journal of Social Behavior and Personality*, 5(6), 563–573. <http://search.proquest.com/docview/1292241011/>
- [28]. Cuncic, A. (2022, November 17). What is Imposter Syndrome? VeryWell Mind. Retrieved February 13, 2023, from <https://www.verywellmind.com/impostor-syndrome-and-social-anxiety-disorder-4156469>
- [29]. Cusack, C. E., Hughes, J. L., & Nuhu, N. (2013). Connecting gender and mental health to impostor phenomenon feelings. *Psi Chi Journal of Psychological Research* 18(2), 74-81. <https://doi.org/10.24839/2164-8204.JN18.2.74>
- [30]. Domínguez-Soto, C., Labajo, V., & Fernández, J. L. (2021). The relationship between impostor phenomenon and transformational leadership among students in STEM. *Current Psychology*, 42(13), 11195–11206. <https://doi.org/10.1007/s12144-021-02358-3>
- [31]. Doris, O. M. (2021). Analysis of Students' Self-Esteem and Academic Performance of Physics Students in Senior Secondary Schools in Port-Harcourt Local Government Area. *British Journal of Contemporary Education*. 1(1). 75-83. <https://doi.org/10.52589/BJCE-PJ2LCMEM>
- [32]. Eagly, A. H., & Becker, S. W. (2005). Comparing the heroism of women and men. *American Psychologist*, 60(4), 343–344
- [33]. Ebede, S. S. (2015). The impact of student organizations on the development of core competencies. *UNI ScholarWorks*, 1–72. <https://scholarworks.uni.edu/cgi/viewcontent.cgi?article=1209&context=etd>
- [34]. Endris, H., Schalk, R., & Engen, M. V. (2022). Do personal traits of the leader predict differences in leader and subordinate evaluations of leader effectiveness: a study in the banking industry in ethiopia. *Journal of Management Development*, 41(5), 317-334. <https://doi.org/10.1108/jmd-04-2021-0098>
- [35]. Fedi, A. and Rollero, C. (2016). If stigmatized, self-esteem is not enough: effects of sexism, self-esteem and social identity on leadership aspiration. *Europe's Journal of Psychology*, 12(4), 533-549. <https://doi.org/10.5964/ejop.v12i4.984>
- [36]. Ferdinandi, C. and Kiwonde, F. (2023). The influence of educational leadership on students' academic performance in secondary schools: a case of itilima district. *Electronic Journal of Education Social Economics and Technology*, 4(1), 16-21. <https://doi.org/10.33122/ejeset.v4i1.100>
- [37]. Fetzter Institute. (n.d.). Rosenberg Self-Esteem Scale. Self Report Measures for Love and Compassion Research: Self-Esteem. https://fetzer.org/sites/default/files/images/stories/pdf/selfmeasures/Self_Measures_for_Self-Esteem_ROSENBERG_SELF-ESTEEM.pdf
- [38]. Foubert, J. D., & Urbanski, L. A. (2006). Effects of Involvement in Clubs and Organizations on the Psychosocial Development of First-Year and Senior College Students. *Journal of Student Affairs Research and Practice*, 43(1). <https://doi.org/10.2202/1949-6605.1576>
- [39]. Freeman, K., Houghton, S., Carr, S., & Nestel, D. (2022, March 3). Measuring impostor phenomenon in healthcare simulation educators: a validation of the Clance Impostor Phenomenon Scale and Leary Impostorism Scale. *BMC Medical Education*, 22(1), 139. <https://doi.org/10.1186/s12909-022-03190-4>
- [40]. French, B. F., Ullrich-French, S., & Follman, D. (2008). The psychometric properties of the Clance Impostor Scale. *Personality and Individual Differences*, 44(5), 1270–1278. <https://doi.org/10.1016/j.paid.2007.11.023>
- [41]. Gadsby, S., & Hohwy, J. (2023). Negative performance evaluation in the impostor phenomenon. *Current Psychology*. <https://doi.org/10.1007/s12144-023-05030-0>
- [42]. Gallagher, S. (2019). Professional identity and impostor syndrome. *The Clinical Teacher*, 16(4), 426-427. <https://doi.org/10.1111/tct.13042>
- [43]. Gebresilase, B. M. and Zhao, W. (2023). The mediating role of self-esteem on the relationship between teachers students interaction and students academic achievement of wolaita sodo university students. *Open Journal of Social Sciences*, 11(01), 243-269. <https://doi.org/10.4236/jss.2023.111019>
- [44]. Glen, S. (n.d.). Correlation Coefficient: Simple Definition, Formula, Easy Steps. *Statistics How To*. <https://www.statisticshowto.com/probability-and-statistics/correlation-coefficient-formula/FOedffffdffff>
- [45]. Goldsmith, E. (2018P). Do you feel like a fraud? How experiencing the impostor phenomenon influences consumption choices. *CUNY Academic Works*. https://academicworks.cuny.edu/gc_etds/2458/
- [46]. Günel, İ. (2021). The Effect of Self-Esteem on leadership orientation: A study on students of Sports Management Department. *Asian Journal of Education and Training*, 7(1), 91–95. <https://doi.org/10.20448/journal.522.2021.71.91.95>
- [47]. Hand, S., Rice, L. & Greenlee, E. Exploring teachers' and students' gender role bias and students' confidence in STEM fields. *Social Psychology of Education*, 20, 929–945. <https://doi.org/10.1007/s11218-017-9408-8>
- [48]. Harvey, J. C. (1981). *The impostor phenomenon and achievement: A failure to internalize success* (Doctoral dissertation). <http://search.proquest.com.www2.lib.ku.edu/docview/303035505>
- [49]. Hoang, Q. (2013). The impostor phenomenon: Overcoming internalized barriers and recognizing achievements. *The Vermont Connection*, 34(6), 41-51. <https://scholarworks.uvm.edu/tvc/vol34/iss1/6>
- [50]. Holmes, S. W., Kertay, L., Adamson, L. B., Holland, C. L., & Clance, P. R. (1993). Measuring the impostor phenomenon: A comparison of Clance's IP scale and Harvey's IP scale. *Journal of Personality Assessment*, 60(1), 48-59. https://doi.org/10.1207/s15327752jpa6001_3
- [51]. Hood, A. A. (1984). Student Development: Does Participation Affect Growth?. *Education Resources Information Center (ERIC)*, 52(6), 16–19. <https://eric.ed.gov/?id=ED255105>
- [52]. Huecker, M. R., Shreffler, J., McKeny, P. T., & Davis, D. (2023). Imposter phenomenon. *National Library of Medicine - StatPearls Publishing*. <https://www.ncbi.nlm.nih.gov/books/NBK585058/>
- [53]. Hutchins, H. and Flores, J. (2021). Don't believe everything you think: applying a cognitive processing therapy intervention to disrupting impostor phenomenon. *New Horizons in Adult Education and Human Resource Development*, 33(4), 33-47. <https://doi.org/10.1002/nha3.20325>
- [54]. Hutchins, H. M. (2015). Outing the impostor: A study exploring impostor phenomenon among higher education faculty. *New Horizons in Adult Education & Human Resource Development*, 27(2), 3-12. <https://doi.org/10.1002/nha3.20098>
- [55]. Hutchins, H., Penney, L., & Sublett, L. (2017). What imposters risk at work: exploring impostor phenomenon, stress coping, and job outcomes. *Human Resource Development Quarterly*, 29(1), 31-48. <https://doi.org/10.1002/hrdq.21304>
- [56]. Ivers, J., & Downes, P. (2011). A phenomenological reinterpretation of Horner's fear of success in terms of social class. *European Journal of Psychology of Education*, 27(3), 369–388. <https://doi.org/10.1007/s10212-011-0076-3>
- [57]. Jackson, L. A., Ervin, K. S., Gardner, P. D., & Schmitt, N. (2001). Gender and the Internet: Women Communicating and Men Searching. *Sex Roles*, 44(5), 363.
- [58]. Jamison, L. (2023, March 23). Why everyone feels like they're faking it. *The New Yorker*. <https://www.newyorker.com/magazine/2023/02/13/the-dubious-rise-of-impostor-syndrome>
- [59]. Karataş, İ. and Akyüz, H. (2021). Investigation of the relationship between the two-dimensional self-esteem perceptions and leadership

orientations of the faculty of sports sciences students. *Education Quarterly Reviews*, 4(4). <https://doi.org/10.31014/aior.1993.04.04.410>

[60]. Kark, R., Meister, A., & Peters, K. (2021). Now You See Me, Now You Don't: A Conceptual Model of the Antecedents and Consequences of Leader Impostorism. *Journal of Management*, 48(7), 1948-1979. <https://doi.org/10.1177/01492063211020358>

[61]. Kaplan, K. (2009). Unmasking the impostor. *Nature*, 459(7245), 468-469. <https://doi.org/10.1038/nj7245-468a>

[62]. Kh, A., & Menon, P. (2020). Impostor syndrome: an integrative framework of its antecedents, consequences and moderating factors on sustainable leader behaviors. *European Journal of Training and Development*, 46(9), 847-860. <https://doi.org/10.1108/ejtd-07-2019-0138>

[63]. Langford, J. & Clance, P. R. (1993). The impostor phenomenon: Recent research findings regarding dynamics, personality and family patterns and their implication for treatment. *Psychotherapy: Theory, Research, Practice, Training*, 30(3), 495-501. <https://doi.org/10.1037/0033-3204.30.3.495>

[64]. Lawati, A. A., Wahaibi, A. A., Kharusi, F. A., Chan, M. F., & Sinawi, H. A. (2023). Investigating impostorism among undergraduate medical students at Sultan Qaboos University: a questionnaire-based study. *Research Square (Research Square)*. <https://doi.org/10.21203/rs.3.rs-3104762/v1>

[65]. Lee, L. E., Rinn, A. N., Crutchfield, K., Ottwein, J. K., Hodges, J., & Mun, R. U. (2020, September 17). Perfectionism and the Imposter Phenomenon in Academically Talented Undergraduates. *EdArXiv Preprints*. <https://doi.org/10.35542/osf.io/mu8pe>

[66]. Machulska, M., & Burey, J. A. (2021, February 11). Stop Telling Women They Have Imposter Syndrome. *Harvard Business Review*. <https://hbr.org/2021/02/stop-telling-women-they-have-imposter-syndrome>

[67]. Major, B. (2012). Self, social identity, and stigma: Through Kay Deaux's lens. In S. Wiley, G. Philogène, T. A. Revenson, S. Wiley, G. Philogène, & T. A. Revenson (Eds.), *Social categories in everyday experience*, 11-30. Washington, DC: American Psychological Association. <https://doi.org/10.1037/13488-001>

[68]. Major, B., Spencer, S., Schmader, T., Wolfe, C., & Crocker, J. (1998). Coping with negative stereotypes about intellectual performance: The role of psychological disengagement. *Personality and Social Psychology Bulletin*, 24(1), 34-50. <https://doi.org/10.1177/0146167298241003>

[69]. Mak, K. K. L., Kleitman, S., & Abbott, M. J. (2019). Impostor phenomenon measurement scales: A systematic review. *Frontiers in Psychology*, 10, Article 671. <https://doi.org/10.3389/fpsyg.2019.00671>

[70]. Mainali, S. (2020, December). Being an Imposter: Growing Out of Impostership. *Journal of Nepal Medical Association*, 58(232), 1097-1099. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8028514/>

[71]. Martin, L. M. (2000). The Relationship of College Experiences to Psychosocial Outcomes in Students. *Education Resources Information Center (ERIC)*, 41(3), 292-301. <https://eric.ed.gov/?id=EJ614365>

[72]. Mascarenhas, V. R., D'souza, D. B., & Bicholkar, A. (2018). Prevalence of impostor phenomenon and its association with self-esteem among medical interns in Goa, India. *International Journal of Community Medicine and Public Health*, 6(1), 355. <https://doi.org/10.18203/2394-6040.ijcmph20185272>

[73]. Mascarenhas, V., D'souza, D., & Bicholkar, A. (2018). Prevalence of impostor phenomenon and its association with self-esteem among medical interns in goa, india. *International Journal of Community Medicine and Public Health*, 6(1), 355. <https://doi.org/10.18203/2394-6040.ijcmph20185272>

[74]. Mcleod, S. (2023, October 3). Social roles and Social norms in Psychology. *Simply Psychology*. <https://www.simplypsychology.org/social-roles.html>

[75]. Mcleod, Saul (2024, January 24). Maslow's Hierarchy of Need. *Simply Psychology*. <https://www.simplypsychology.org/maslow.html>

[76]. Miller, K. D. (2020, January 30). 9 Self-Esteem Questionnaires (+Rosenberg Self-Esteem Scale). *PositivePsychology.com*. <https://positivepsychology.com/rosenberg-self-esteem-scale-questionnaires/>

[77]. Monteiro, R. P., Coelho, G. L., Hanel, P. H. P., De Medeiros, E. D., & Da Silva, P. (2022). The Efficient Assessment of Self-Esteem: Proposing the Brief Rosenberg Self-Esteem Scale. *Applied Research in Quality of Life*, 17(2), 931-947. <https://doi.org/10.1007/s11482-021-09936-4>

[78]. Moran, A. J. (2015). An Examination of Self-Esteem's Impact on the Leadership Behaviors of Female Undergraduate Student Leaders. *Masters Theses*. 2330. <https://thekeep.eiu.edu/theses/2330>

[79]. Murage, L. M., Njagi, N. J., & Wambugu, G. M. (2018). Assessment of student leaders' skills critical in managing student affairs in public universities in kenya. *International Journal of Education and Literacy Studies*, 6(4), 107. <https://doi.org/10.7575/aiac.ijels.v.6n.4p.107>

[80]. Naderi, H., Abdullah, R., Hamid, T. A., & Jamaluddin, S. (2009). Self Esteem, Gender and Academic Achievement of Undergraduate Students. *Psychology of Men & Masculinity*, 15(1), 22. <https://doi.org/10.1037/a0031028>

[81]. Naser, M. J., Hasan, N. E., Zainaldeen, M. H., Zaidi, A., Mohamed, Y. M. a. M. H., & Fredericks, S. (2022). Impostor phenomenon and its relationship to Self-Esteem among students at an international medical college in the Middle East: a cross sectional study. *Frontiers in Medicine*, 9. <https://doi.org/10.3389/fmed.2022.850434>

[82]. Nguyen, D. T., Wright, P., Dedding, C., Pham, T. T., & Bunders, J. (2019). Low self-esteem and its association with anxiety, depression, and suicidal ideation in vietnamese secondary school students: a cross-sectional study. *Frontiers in Psychiatry*, 10. <https://doi.org/10.3389/fpsyg.2019.00698>

[83]. Nikolopoulou, K. (2022, August 11). What is purposive sampling? | Definition & Examples. *Scribbr*. <https://www.scribbr.com/methodology/purposive-sampling/>

[84]. Nikolopoulou, K. (2022, September 17). Inclusion and Exclusion Criteria | Examples & definition. *Scribbr*. <https://www.scribbr.com/methodology/inclusion-exclusion-criteria/>

[85]. Noel-Levitz, Inc. (2011). The Attitudes of Second-Year College Students: A National Pilot Study on the Challenges Students Face as They Transition to Their Second Year of Postsecondary Education. 2011 Pilot Study/Research Report. *Education Resources Information Center (ERIC)*. <https://eric.ed.gov/?id=ED536419>

[86]. Nuzzo, J. L., & Deaner, R. O. (2023). Men and women differ in their interest and willingness to participate in exercise and sports science research. *Scandinavian Journal of Medicine & Science in Sports*, 33(9), 1850-1865. <https://doi.org/10.1111/sms.14404>

[87]. Page, D. (2017, October 26). How impostor syndrome is holding you back at work. *NBC News BETTER*. https://www.nbcnews.com/better/amp/nca814231?fbclid=IwAR2WjoVg5ectI_SARHKKuRzVfAolqr3RrXOAoE2UvmbwxYQNYwF7C-kwdfY

[88]. Pandey, R. A. and Chalise, H. N. (2017). Self-esteem and academic stress among nursing students. *Kathmandu University Medical Journal*, 13(4), 298-302. <https://doi.org/10.3126/kumj.v13i4.16827>

[89]. Parkman, A. (2016). The impostor phenomenon in higher education: Incidence and impact. *Journal of Higher Education Theory & Practice*, 16(1). <https://articlegateway.com/index.php/JHETP/article/view/1936>

[90]. Picho, K., & Brown, S. W. (2011). Can stereotype threat be measured? A validation of the Social Identities and Attitudes Scale (SIAS). *Journal of Advanced Academics*, 22, 374-411. <https://doi.org/10.1177/1932202X1102200302>

[91]. Pinel, E. C. (1999). Stigma consciousness: The psychological legacy of social stereotypes. *Journal of Personality and Social Psychology*, 76(1), 114-128. <https://doi.org/10.1037/0022-3514.76.1.114>

[92]. Pool, J. (2022). A qualitative examination of the impostor phenomenon in community college and technical college presidents in the upper midwest [Doctoral dissertation, Minnesota State University, Mankato]. *Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato*. <https://cornerstone.lib.mnsu.edu/etds/1267>

[93]. Purposive sampling. (n.d.). *Lærd Dissertation*. <https://dissertation.laerd.com/purposive-sampling.php>

[94]. Reitz, A. K. (2022, November 2). Self-esteem development and life events: A review and integrative process framework. *Social and Personality Psychology Compass*, 16(11). <https://doi.org/10.1111/spc3.12709>

[95]. Redenbach, S. (1991). *Self-Esteem, The Necessary Ingredient for Success. USA: Esteem Seminar Programs and Publications.*

[96]. Rice, K. G., Richardson, C. M. E., & Clark, D. (2012). Perfectionism, procrastination, and psychological distress. *Journal of Counseling Psychology*, 59(2), 288-302. <https://doi.org/10.1037/a0026643>

- [97]. Richeson, J. A. and Ambady, N. (2001). When roles reverse: stigma, status, and self-evaluation. *Journal of Applied Social Psychology*, 31(7), 1350-1378. <https://doi.org/10.1111/j.1559-1816.2001.tb02677.x>
- [98]. Ristanti, D. H. (2023). The Self-Esteem of Generation Z as Leaders: A study on the Student Council Board for the 2022/2023 school Year at SMA 1 Rejang Lebong. *JMKSP (Jurnal Manajemen, Kepemimpinan, Dan Supervisi Pendidikan)*, 8(1), 344–350. <https://doi.org/10.31851/jmksp.v8i1.11862>
- [99]. Rohrmann, S., Bechtoldt, M. N., & Leonhardt, M. (2016). Validation of the Impostor Phenomenon among Managers. *Frontiers in Psychology*, 7. <https://doi.org/10.3389/fpsyg.2016.00821>
- [100]. Rosch, D. M., & Collins, J. D. (2017). The significance of student organizations to leadership development. *New Directions for Student Leadership*, 2017(155), 9–19. <https://doi.org/10.1002/yd.20246>
- [101]. Rosenberg, M. (1965). *Society and the Adolescent Self-Image*. Princeton University Press eBooks. <https://doi.org/10.1515/9781400876136>
- [102]. Rosenstein, A., Raghu, A., & Porter, L. (2020). Identifying the prevalence of the impostor phenomenon among computer science students. *ACM Digital Library*. <https://doi.org/10.1145/3328778.3366815>
- [103]. Ross, S. R., Stewart, J., Mugge, M., & Fultz, B. (2001, December). The impostor phenomenon, achievement disposition, and the five factor model. *Personality and Individual Differences*, 31(8), 1347- 1355. [https://doi.org/10.1016/S0191-8869\(00\)00228-2](https://doi.org/10.1016/S0191-8869(00)00228-2)
- [104]. Sakulku, J., & Alexander, J. (2011). The impostor phenomenon. *International Journal of Behavioral Science*, 6(1), 75–97. <https://doi.org/10.14456/ijbs.2011.6>
- [105]. Sakulku, J., & Alexander, J. (2011). The impostor phenomenon. *International Journal of Behavioral Science*, 6(1), 75–97. <https://doi.org/10.14456/ijbs.2011.6>
- [106]. Shrestha, B., Yadav, S., Dhakal, S., Ghimire, P., Shrestha, Y., & Rathaure, E. S. (2021). Status of self-esteem in medical students of a college in kathmandu: a descriptive cross sectional study. *F1000Research*, 10, 1031. <https://doi.org/10.12688/f1000research.72824.1>
- [107]. Sims, J. D. (2017, May 31). *A Phenomenological Examination of Imposter Phenomenon in Music Therapy Students*. University of Kansas. <http://hdl.handle.net/1808/25393>
- [108]. Smith, W. G. (2008). Does Gender Influence Online Survey Participation?: A Record-linkage Analysis of University Faculty Online Survey Response Behavior. *Education Resources Information Center (ERIC)*, 2–17. <https://files.eric.ed.gov/fulltext/ED501717.pdf>
- [109]. Sreekumar, D. (2023, March 23). What is quantitative research? Definition, methods, types, and examples. *Researcher.life*. <https://researcher.life/blog/article/what-is-quantitative-research-types-and-examples/>
- [110]. Srivastava, S., Pathak, D., Singh, L. B., & Verma, S. (2022). Do self-esteem and ethical leadership dampen Machiavellianism–effectiveness relationship: a parallel mediation approach? *Journal of Management Development*, 41(3), 183–202. <https://doi.org/10.1108/JMD-03-2021-0093>
- [111]. Srivastav, A. K., & Vaidya, D. (n.d.). Pearson Correlation Coefficient. *WallStreetMojo*. <https://www.wallstreetmojo.com/pearson-correlation-coefficient/>
- [112]. Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69(5), 797–811. <https://doi.org/10.1037/0022-3514.69.5.797>
- [113]. Steffens, N. K., Munt, K. A., Van Knippenberg, D., Platow, M. J., & Haslam, S. A. (2020). Advancing the social identity theory of leadership: A meta-analytic review of leader group prototypicality. *Organizational Psychology Review*, 11(1), 35–72. <https://doi.org/10.1177/2041386620962569>
- [114]. University of Wisconsin–Madison. (2014, November 6). *Third Year: Reflections and Transitions*. University of Wisconsin–Madison. <https://parent.wisc.edu/year-by-year/third-year-reflections-and-transitions/>
- [115]. Vašašová, Z., Strenáčiková, M., & Gurgová, B. Ž. (2021). Teachers’ Leadership Behaviour in Relation to their Self-Esteem. *New Educational Review*, 66, 147– 156. <https://doi.org/10.15804/ner.2021.66.4.12>
- [116]. Vian, S. (2021). The Impostor Phenomenon and Implicit Theories of Intelligence. In *Vian UWL Journal of Undergraduate Research XXIV*. <https://www.uwlax.edu/globalassets/offices-services/urc/jur-online/pdf/2021/vian.sydney.psy.pdf>
- [117]. Votaw, K. (2020, November 8). 24.3: Gender Differences In Helping. *Social Sci LibreTexts*. [https://socialsci.libretexts.org/Bookshelves/Psychology/Introductory_Psychology/General_Psychology_for_Honors_Students_\(Votaw\)/24%3A_A_Other_Determinants_of_Helping/24.03%3A_Gender_Differences_In_Helping](https://socialsci.libretexts.org/Bookshelves/Psychology/Introductory_Psychology/General_Psychology_for_Honors_Students_(Votaw)/24%3A_A_Other_Determinants_of_Helping/24.03%3A_Gender_Differences_In_Helping)
- [118]. Wen, Q., Wu, Y., & Long, J. (2021). Influence of ethical leadership on employees’ innovative behavior: The role of organization-based self-esteem and flexible human resource management. *Sustainability (Switzerland)*, 13(3), 1–15. <https://doi.org/10.3390/su13031359>