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Article

Impostor Phenomenon Unveiled: Exploring Its Impact on Well-Being, Performance, and Satisfaction Among Employees

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Abstract: The Impostor Phenomenon (IP) is a widespread psychological phenomenon impacting the personal and professional experiences of individuals. This study aims to examine the impact of the IP on employee well-being, performance, and job satisfaction within Higher Education Institutions (HEIs) in Lebanon. Moreover, this study explores if these effects vary depending on individuals' personality types, such as introverted or extroverted, and if perceived organizational support (POS) plays a moderating role in these relationships. The research employed a mono-method quantitative approach to collect data from a sample of 155 faculty and staff employees using an online structured survey. Data were statistically analyzed using SPSS software. The findings obtained indicate that higher impostorism levels were linked to lower employee well-being, job satisfaction, and self-assessed job performance. Introverts showed a negative association between impostorism and well-being, while extroverts had significant negative associations with both job satisfaction and performance. POS only moderately influenced the association between impostorism and job satisfaction. The significance of the IP's impacts on employee outcomes among different personality types is emphasized in this study. Furthermore, the moderating role played by POS highlighted the importance of organizational efforts in addressing employees' experiences. This study provided insights to Human Resources (HR) professionals in Lebanon's Higher Education Institutions to develop targeted interventions addressing IP experiences and personality types and promoting mental wellness and better job satisfaction and performance, and thus better organizational outcomes.

Keywords: impostor phenomenon; employee well-being; employee performance; job satisfaction; introverts; extroverts; perceived organizational support; higher education institutions; Lebanon



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1. Introduction

1.1. General Background

In the past few decades, the Impostor Phenomenon (IP) has emerged as a compelling area of research in organizational psychology (Byrom et al., 2022; Hutchins, 2015; Hutchins & Rainbolt, 2017). This psychological phenomenon revolves around the perception of accomplished individuals seeing themselves as frauds despite their achievements, leading to intellectual phoniness, fear of exposure, and self-doubt (Clance & Imes, 1978). The IP has been explored extensively for its potential impact on various facets of personal and professional outcomes. Notably, the IP has been shown to negatively impact mental health and academic self-concept (Cokley et al., 2013), and job satisfaction (Hutchins et al.,

2018). Moreover, personality types have been recognized as influential factors in shaping employee experiences and behaviors (Siegel et al., 2001). Introverts—characterized by analytical and reserved tendencies, opposite to extroverts—have been found to face unique challenges in the workplace, often due to cultural biases favoring extroversion (Kaufman, 2014), tokenism, and unconscious bias (Kanter, 1977; Santos, 2015).

Although the literature highlighted the complex nature of the IP, its interconnection with personality traits and organizational outcomes remains underexplored, with a lack of extensive studies, particularly in Higher Education Institutions (HEIs). This has set the grounds for this current research, which is the first study in Lebanon to address the gap in the current literature, by examining the relationship between the IP and employee outcomes in HEIs.

1.2. Research Objectives

This study was inspired by the lack of understanding of the impacts of the IP on employees in HEIs. Specifically, this study examines how employee well-being, performance, and job satisfaction are affected within HEIs in Lebanon. Moreover, this study aims to explore if these effects vary among introverts and extroverts, and if they are moderated by perceived organizational support (POS). Accordingly, this research seeks to contribute to the current knowledge base and provide valuable insights to HR professionals in HEIs on the unique challenges faced by employees. Particularly, the objectives of this study are as follows: (1) To investigate the IP's impact on employee well-being; (2) To explore the IP's impact on employee performance; (3) To examine the IP's impact on employee job satisfaction; (4) To analyze how these relationships may vary between introverted and extroverted employees; (5) To explore the moderating role played by POS on IP's relationship with employee outcomes.

1.3. Research Questions

To attain the aforementioned objectives, the research questions are as follows: (1) What is the IP's impact on employee well-being in Lebanese HEIs? (2) What is the IP's impact on employee performance in Lebanese HEIs? (3) What is the IP's impact on job satisfaction in Lebanese HEIs? (4) Do the IP's impacts on employee outcomes differ between introverted and extroverted employees? (5) Does POS play a role in moderating the IP's impact on employee outcomes?

1.4. Significance of Study

There exists a noticeable gap in understanding the IP's specific impact on employees, especially within HEI settings. Moreover, although the influence of introversion and extroversion on employee experiences has been studied in different contexts, their roles have not been directly compared within the framework of the IP. Hence, the significance of this study is multi-dimensional.

As this phenomenon has not been investigated in Lebanon, this research is the first to unveil the psychological experiences of HEI employees, adding an important dimension to understanding the IP's effects on employee outcomes and its relation to different personality types. This study further highlights the role played by organizations in supporting their employees while experiencing the IP. Such a study would not only fill critical gaps in the literature and enhance the current understanding but also facilitate the implementation of organizational strategies and targeted interventions to support employees, fostering their well-being and enhancing job-related experiences within HEIs.

2. Literature Review

A comprehensive literature review establishes the base of any substantial and valuable research by presenting a comprehension of the aspects being researched (Boote & Beile, 2005). This review critically examines the theoretical framework of this study and the existing body of knowledge on the IP and its impact on employee well-being, performance, and satisfaction.

2.1. Theoretical Framework

The theoretical framework explains the fundamental definitions and relevant theories on the main variables under investigation, providing a solid conceptual basis for the outcomes of this study.

2.1.1. Impostor Phenomenon

Despite their achievements, accomplished individuals often perceive themselves as frauds, which is commonly known as the Impostor Phenomenon (Clance & Imes, 1978). This phenomenon is marked by feelings of intellectual phoniness, fear of exposure, and downplaying personal achievements (Hutchins & Rainbolt, 2017; Ross et al., 2001; Thompson et al., 2000). Accompanying these feelings are low self-esteem, low self-perceived intelligence, and maladaptive perfectionism (Vergauwe et al., 2015).

Researchers have looked at Burke's identity theory (Burke, 1980) and Tajfel's social identity theory (1982) to understand the implications of the IP (Hogg, 2001; Stryker & Burke, 2000). The individual's self-concept is shaped by their association with social groups, which in turn affects their behavior and how they are perceived as leaders (Hogg, 2001; Tajfel, 1982). Additionally, Weiner's attributional theory of motivation and emotion has contributed to explaining the IP. Individuals suffering from impostor feelings tend to attribute their successes and failures differently, which impacts their emotional responses and behavior (Weiner, 1985).

Consequently, the IP affects individuals' self-views, leading to competence-based self-discrepancies and external justifications for poor performance (Kumar & Jagacinski, 2006). Additionally, the IP can lead to biased decision-making and hinder career planning and motivation (Bechtoldt, 2015; Neureiter & Traut-Mattausch, 2017). As a result, extensive research has explored the origins and outcomes of this phenomenon (Sakulku, 2011), revealing its impact on career-related factors, self-efficacy beliefs, and job satisfaction (Jöstl et al., 2015; McDowell et al., 2015).

2.1.2. Personality Types

Personality encompasses measurable traits and interactions influencing how individuals perceive themselves and influence others. The theory of psychological type highlights individual preferences for perception and judgment (Siegel et al., 2001). Moreover, the Big Five Personality Model categorizes individuals into five main personality types, namely extroversion, agreeableness, conscientiousness, emotional stability, and openness (George & Jones, 1999).

Extroversion and introversion personality types play a significant role in shaping personality and identity (Siegel et al., 2001). Extroversion reflects a social and friendly nature, whereas introverts, making up a considerable portion of the population, possess traits like being analytical, reserved, cautious, and introspective (Freyd, 1924; George & Jones, 1999).

In fact, although research acknowledges their positive traits, creativity, and analytical thinking (Spark et al., 2018; Stephens-Craig et al., 2015), introverts face challenges in leadership and creative industries due to cultural biases favoring extroversion (Kaufman,

2014). They also struggle in the workplace due to tokenism and unconscious bias (Kanter, 1977; Santos, 2015). This has highlighted the need for understanding introverts' unique strengths to address biases and promote inclusivity.

2.1.3. Employee Well-Being

The concept of employee well-being is multi-dimensional and lacks a universally agreed-upon definition. It includes psychological health, job satisfaction, and other dimensions like subjective happiness, interpersonal relationships, and physical wellness (Grant et al., 2007; Ponting, 2020). External factors like economic conditions and technology also impact employee well-being (A. Bakker et al., 2003; Brauchli et al., 2013).

The job demands-resources (JD-R) model is often used to study factors influencing well-being, proposing two psychological processes triggered by work environments: health impairment and motivational process (Demerouti & Bakker, 2011; Hakanen et al., 2006). It implies that job demands and resources are interconnected with various aspects of the well-being of employees (A. B. Bakker & Demerouti, 2007). While job demands require effort and entail physical and psychological burdens, job resources aid in accomplishing work targets and fostering personal improvement and growth (A. B. Bakker & Demerouti, 2014; Demerouti et al., 2001).

In fact, employee well-being is a growing concern for employers, employees, and society at large (REBA, 2019), as it can provide organizations with a competitive edge, influence individuals' life satisfaction and happiness (Bowling et al., 2010), and has broader implications for national healthcare (Goh et al., 2015). Accordingly, considerable studies have connected employee well-being to performance measures like work-life balance, turnover rates, stress levels, job satisfaction, and productivity (A. B. Bakker & Oerlemans, 2011; Keeman et al., 2017).

2.1.4. Job Performance

Job performance involves behaviors aimed at achieving organizational value (Bozionelos & Singh, 2017; Pan et al., 2016; Rich et al., 2010). Two main perspectives on job performance exist: results-based, focusing on end products (Rich et al., 2010), and behavioral, emphasizing observable actions (Jundt et al., 2015; Tufail et al., 2017).

The behavioral perspective recognizes the significance of employees' behaviors in the process (Williams & Anderson, 1991). It includes task performance (core activities) and contextual performance (positive impact on work) (Bozionelos & Singh, 2017; Williams & Anderson, 1991). Contextual performance comprises assisting the organization indirectly and enhancing colleagues' performance, while task performance involves behaviors contributing to goods or services production. Contextual performance fosters a positive environment, while counterproductive work behavior harms the organization (Rotundo & Sackett, 2002).

2.1.5. Job Satisfaction

Job satisfaction is greatly linked to employee satisfaction, which is vital for organizational success, leading to reduced labor turnover. Employee satisfaction involves addressing physical, psychological, and financial needs, impacting personal and professional effectiveness. It influences workforce efficiency and service quality, as employee motivation and commitment are crucial to achieving goals (Tett & Meyer, 1993).

Extrinsic and intrinsic motivation, along with relational motivation, influence employee satisfaction. Extrinsic factors include rewards like compensation, promotions, and recognition, whereas intrinsic motivation arises from personal feelings and supervisor support (Kotze, 2004). Additionally, relational motivation involves social relationships. Satisfied employees are more productive, motivated, and loyal, benefiting organizational perfor-

mance (Edmans, 2012). They lead to increased customer engagement and loyalty, while dissatisfaction may result in high employee turnover, especially among inexperienced staff.

2.2. Perceived Organizational Support

POS is a crucial concept shaping employees' feelings at work (Eisenberger et al., 1990). It reflects how much employees believe their contributions are appreciated and cared for by their organization (Wayne et al., 1997). POS develops over time based on employees' experiences and is influenced by organizational policies (Guzzo et al., 1994).

The origin of POS can be traced to Eisenberger et al.'s (1986) pioneering work. Their study examined how employees perceive the organization's appreciation for their welfare (Eisenberger et al., 1986). Rhodes and Eisenberger's meta-analysis in 2002 also confirmed antecedents like fairness, rewards, supervisor support, and job conditions (Rhoades & Eisenberger, 2002). POS generates a sense of obligation, correlating with turnover, commitment, and job satisfaction (Cropanzano et al., 1997; Guzzo et al., 1994; Stinglhamber & Vandenberghe, 2003). It also links commitment, innovation, and organizational citizenship behavior (Eisenberger et al., 1986; Moorman et al., 1998; Wayne et al., 1997).

High POS leads to more job satisfaction, better moods, and fewer strain symptoms. Conversely, low POS may lead to impostor-like feelings, anxiety, burnout, and fatigue (Eisenberger et al., 2002). Accordingly, POS lowers stress at work and functions as a barrier against future pressure and conflict (Babakus et al., 1996; Jones et al., 1995; Stamper & Johlke, 2003).

2.3. Previous Research

This section delves into the existing studies and literature concerning the key variables of this research, presenting a detailed synthesis of the existing knowledge base that forms the foundation for the investigation of the current study.

2.3.1. Impostor Phenomenon and Well-Being

Extensive literature explored how the IP affects the well-being of individuals. Cokley et al. (2013) explored the correlation between the IP, mental health, and academic self-concept by surveying 240 ethnic minority college students. The study found that the IP was negatively correlated with mental health and academic self-concept, suggesting that interventions targeting the IP can improve mental health outcomes for ethnic minority students.

Similarly targeting students, Byrom et al. (2022) examined mental health among 431 postgraduate research students in the UK. Positive supervisory relationships and confidence in preparedness were noted. Strong sleep, good health, low self-depreciation, and family support were related to better mental well-being and reduced stress. Addressing the IP and fostering confidence were recommended to support doctoral researchers.

Ross et al. (2001) also explored the IP in connection with achievement propensity and the five-factor model. A total of 129 college students completed scales measuring the IP and achievement. IP scores correlated with all achievement constructs, but "self-handicapping" and "fear of failure" had the strongest predictive value.

While studied among graduate students, faculty coping strategies remained unexplored. Rooted in identity theory, Hutchins and Rainbolt (2017) used the critical incident technique (CIT) to analyze narratives from 16 faculty, identifying triggers, coping methods, and institutional support needs. While gender differences emerged, the study concluded that tailored interventions could address faculty impostor experiences, enhancing well-being in academia.

Hutchins (2015) also focused on individual psychological factors affecting employee well-being and performance. The results showed moderate levels of IP, with untenured faculty reporting the highest frequency. Emotional exhaustion was positively correlated

with impostor feelings. However, those reporting moderate to high impostor levels displayed stronger adaptive coping skills. Mentoring played a vital role in mitigating impostor tendencies, implying that addressing this phenomenon can enhance faculty well-being and effectiveness.

In light of such observations, it was hypothesized that the IP adversely impacts employee well-being in HEIs; thus, the hypothesis is as follows:

H1. *There is a negative correlation between the IP and well-being among faculty and staff employees in HEIs in Lebanon.*

2.3.2. Impostor Phenomenon and Job Performance

Previous research has reflected the relationship between the IP and job performance. [Badawy et al. \(2018\)](#) examined the association between the IP, gender, and performance under varying conditions: feedback ($N_1 = 268$) and accountability ($N_2 = 250$). Findings showed that men experiencing the IP responded more negatively under high accountability and negative feedback, indicating a complicated relationship between the IP and gender, and work outcomes.

In a study across Australia, New Zealand, and the UK, [Christensen et al. \(2016\)](#) examined the IP among nursing senior students. The study involved 223 final-year students, revealing mild to moderate IP feelings in each cohort. There was a weak positive association between the IP and a willingness to practice, suggesting that nursing students may internalize feelings that negatively impact their performance and competence.

The IP, fear of failure, and perfectionism have also been examined by [Koshy et al. \(2022\)](#) with a sample of 166 adults. The Impostor Profile (IPP31), the Multidimensional Perfectionism Scale, and the Performance Failure Appraisal Inventory (PFAI) were used. The findings reflected significant associations between competence, doubt, need for sympathy, and frugality with different perfectionism types. Other-Self divergence and alienation were positively associated with socially oriented perfectionism, while fear of failure was significantly correlated with all IP sub-factors.

Based on previous studies, the following hypothesis was formulated:

H2. *There is a negative correlation between the IP and performance among faculty and staff employees in HEIs in Lebanon.*

2.3.3. Impostor Phenomenon and Job Satisfaction

The IP's impact on job satisfaction has been explored by multiple studies. [Hutchins \(2015\)](#) studied the IP among faculty in HEIs ($N = 61$) and found moderate IP levels, mainly among untenured faculty. Emotional exhaustion correlated positively with the IP. Those displaying moderate-high IP used adaptive coping, emphasizing the importance of mentoring in addressing the IP and benefiting faculty development. Similarly, [Hutchins et al. \(2018\)](#) investigated the IP's impact on job satisfaction and emotional exhaustion among university faculty ($N = 310$). High IP levels were linked to resource depletion, avoidant coping, and lower job satisfaction. The authors concluded that addressing the IP with interventions like training and social support may enhance faculty satisfaction.

[Vergauwe et al. \(2015\)](#) investigated the IP in high-achieving individuals and its impact on work attitudes ($N = 201$) across various sectors. Findings showed that personality traits, maladaptive perfectionism, and self-efficacy influenced impostor tendencies. Stronger impostor tendencies correlated with higher continuance commitment but lower job satisfaction and Organizational Citizenship Behavior (OCB). However, workplace social support mitigated the IP's effects on job satisfaction and OCB.

Moreover, [Clark et al. \(2022\)](#) explored the IP's impact on 158 mental health workers. They revealed a positive link between IP feelings and compassion fatigue, in addition to being negatively correlated with compassion satisfaction. Burnout and decreased compassion satisfaction predicted increased IP feelings, emphasizing the cruciality of interventions for promoting well-being and job satisfaction in this context.

Accordingly, the findings discussed affirm the following postulated hypothesis:

H3. *There is a negative correlation between the IP and job satisfaction among faculty and staff employees in HEIs in Lebanon.*

2.3.4. Impostor Phenomenon and Personality Types

Personality differences have gained a wide interest in the existing literature, primarily exploring the differences in interaction among introverts and extroverts. Moreover, the impacts of the IP on introverts and extroverts were also compared in the existing literature.

[Crouch et al. \(1991\)](#) examined the IP and psychological types in bankers and human service specialists. The study revealed that higher mean IP scores were obtained among introverted professionals than extroverts. Moreover, among female professionals in the human service sector, more introverted individuals exhibited high impostor scores. These findings provide insights into the association between psychological type and the IP within these professional groups.

Moreover, [Bernard et al. \(2002\)](#) investigated the correlation between the IP and the Big Five personality factors by surveying 190 college students. The authors found that participants high in neuroticism and low in extroversion were prone to experience the IP. They suggested that personality factors contribute to the development and persistence of the IP.

More recently, [Kodweis et al. \(2023\)](#) investigated the relationship between the Myers–Briggs Type Indicator (MBTI) personality types and the IP among pharmacy students. They examined data from 668 Doctor of Pharmacy students. Participants completed the Clance IP Scale (CIPS) and MBTI assessments. The study revealed higher CIPS scores in students with introversion, intuition, and perceiving MBTI types. Notably, introverts faced a 1.8 times higher risk of high to severe IP compared to extroverts. The findings suggest the importance of addressing the IP and providing support to manage anxiety among introverted individuals.

The above studies reveal introversion to be a vulnerability towards the deleterious impact of the IP, and therefore, lead to the following hypothesis:

H4. *The IP's impact on employee outcomes is higher among introverts compared to extroverts.*

2.3.5. Moderating Role of Perceived Organizational Support

POS plays a critical role in shaping workers' experiences in work environments. In their study, [Eisenberger et al. \(2002\)](#) showed a positive correlation between high POS and reduced stress, increased job satisfaction, and overall well-being. [Hutchins et al. \(2018\)](#) further emphasized mentorship and supportive structures in effectively managing feelings of impostor syndrome in educational settings, enhancing job satisfaction, and minimizing feelings of emotional exhaustion. [Rhoades and Eisenberger \(2002\)](#) also showed a positive relation between POS and organizational commitment, with a reduced level of turnover, signifying that a supportive work environment can serve to mitigate workplace sources of tension, such as feelings of the IP.

Thus, in consideration of the aforementioned, the following hypothesis was developed:

H5. *Higher POS decreases the negative effects of the IP on employee outcomes.*

2.4. Literature Gap

Based on the previous studies mentioned above, it is evident that the IP has captured considerable attention in organizational psychology, and its potential effect on employee well-being, performance, and job satisfaction has been a subject of worldwide interest for researchers. However, despite the growing interest in the IP from an organizational psychology perspective, there remains a notable gap in the existing research studies regarding the influence of the IP on employee outcomes within the HEI environment. While several studies have explored the impact of the IP on key outcomes such as mental health, performance, and job satisfaction, the majority of these studies are limited by either their Western context or by samples of students or particular occupational groups. Most of the research on this phenomenon is also outdated, and there is a significant lack of recent studies. Moreover, this phenomenon has not been highlighted or investigated within the existing body of literature in the context of Lebanon.

The majority of research studying the effect of the IP on employee variables, such as well-being and job satisfaction, has been conducted outside of the HEI or non-academic settings. For instance, [Hutchins et al. \(2018\)](#) and [Vergauwe et al. \(2015\)](#) have evidenced IP's effect on resource depletion and subsequent job dissatisfaction. However, the above findings cannot be generalized to the unique dynamics operating within HEIs, which include faculty and staff facing challenges such as tenure pressures, academic freedom, and organizational complexity. Also, the cultural context in which the above studies had been conducted restricts their generalization to non-Western contexts, such as Lebanon. This study seeks to fill this gap by examining the effect of the IP, particularly on employees in Lebanese HEIs, thereby offering valuable insights into how cultural and organizational contexts influence such relationships.

Although much research is being carried out on organizational behavior with regard to the personality traits of introversion and extroversion, less attention is given to the ways that these traits will moderate the effects of the IP on employee outcomes ([Kaufman, 2014](#); [Siegel et al., 2001](#)). Introverts are potentially more vulnerable to the negative impact of the IP because of internalized cultural biases and self-misconception, yet this possibility remains under-investigated at the empirical level. The existing literature indeed suggests, for instance, [Kodweis et al. \(2023\)](#), that introverted individuals possess a greater vulnerability to severe IP; yet there has been no analysis either theoretically or in terms of which organizational factors might reduce or increase this vulnerability. By comparing introverts and extroverts, the present study develops a greater understanding of how personality moderates the IP's effects.

Moreover, while previous studies have already identified POS to act as a barrier against workplace stress and burnout, such as [Eisenberger et al. \(2002\)](#) and [Rhoades and Eisenberger \(2002\)](#), how POS moderates the relationship between the IP and employee well-being, performance, and job satisfaction is inadequately researched. Although [Hutchins et al. \(2018\)](#) pointed out the need for support structures that can reduce the IP, the specific role of POS as a potential moderator remains unexplored or at least not rigorously pursued in the context of HEIs. Thus, this study examines whether POS could mitigate the adverse effects of the IP and offers practical implications for strategies regarding organizational support.

Furthermore, past research has mainly focused on descriptive findings rather than critically assessing the theoretical mechanisms underlying the relationships among the IP, personality traits, and employee outcomes. For example, while studies such as [Hutchins and Rainbolt \(2017\)](#) cite identity theory and attribution theory, they do not explain how those frameworks explain the relationship found. The present study explicitly draws on social identity theory ([Tajfel, 1982](#)) and attribution theory ([Weiner, 1985](#)) as ways of proposing mechanisms by which the IP affects employee outcomes. Precisely, we hypothesize that

those with high IP will attribute success to causes that may be external to themselves; this would deflate their confidence and hurt their performance, especially introverted people. Identity theory also helps explain how the self-concept of employees, biased by their role within HEIs, influences their reactions to the IP.

Thus, this critical knowledge gap calls for a comprehensive comparative investigation that sheds light on how introverts and extroverts might respond differently to feelings of the IP, and how these responses could impact on their overall well-being, job performance, and satisfaction. Consequently, this is the first study to focus on the IP in the Lebanese context.

Looking into Lebanese HEIs will enable this study to provide culturally relevant insights into the impact of the IP, thus extending the scope of the existing literature, which is predominantly based on Western contexts. In fact, this is the first-ever comparative analysis between introverts and extroverts within an IP framework; hence, it has been highlighted as a differential impact based on personality traits. Moreover, looking into POS as a moderator, this study provides practical recommendations for the HR professionals within HEIs when designing interventions that minimize adverse IP effects. The theoretical contribution: The integration of identity theory with the concept of the attribution theory also explains, in the present research, the mechanism underlying the relationships between the IP and employee outcomes, and moderating variables. This will not only comprehensively fill the critical gap in the literature but also extend the theoretical and practical implications of the IP in academic workplaces, especially in non-Western settings.

2.5. Research Context

Lebanon offers a unique and compelling context to study the IP and its consequences for employees. Prolonged financial and political crises have turned Lebanon into an economically constrained environment for employees in all sectors, including HEIs. The World Bank has described the current unprecedented economic collapse of Lebanon since 2019 as the worst in the world in over a century. In this respect, hyperinflation, currency devaluation, generalized unemployment, and disintegration of public services have considerably strained organizations and their respective employees, including faculty and staff in HEIs. Simultaneously, political instability has been constituted by governmental paralysis and social unrest.

These adverse conditions have seriously impacted on employees' well-being, job performance, and satisfaction. Amid this uncertainty, the employees of HEIs are confronting dual pressures from institutional and personal challenges. Such contexts constitute a critical case for the study of the IP because it is expected that under these conditions of hardship, employees are more prone to feelings of self-doubt, inadequacy, stress, and burnout. Furthermore, in the collectivist cultural setting of Lebanon, where social identity and perceived support are of particular importance, this may enhance the effect of POS as a moderating variable. In addition, the strong societal emphasis on education and the prestige and esteem that come with academic careers make it imperative to examine HEI employees within such a cultural background.

While this study focuses on Lebanon as a case, the findings have wider implications for other contexts. Findings concerning IP effects on employees within a setting of crisis may offer insights into how workplace challenges are overcome in other regions facing political or economic turmoil. The present study highlights the interplay between cultural contexts, such as collectivism, and workplace phenomena, thereby informing studies on collectivist and/or hybrid cultures. Moreover, most of the challenges that HEI employees in Lebanon face, including resource constraints, job insecurity, and organizational pressures, are not exclusive to this setting. Results may thus generalize to HEIs from other regions where similar institutional dynamics are experienced.

2.6. Conceptual Framework

Built on the research questions and objectives and the previous studies, the following research hypotheses are proposed:

- H_0 : there is no relationship between the IP and well-being among faculty and staff employees in HEIs in Lebanon.
- H_1 : there is a negative correlation between the IP and well-being among faculty and staff employees in HEIs in Lebanon.
- H_0 : there is no relationship between the IP and performance among faculty and staff employees in HEIs in Lebanon.
- H_2 : there is a negative correlation between the IP and performance among faculty and staff employees in HEIs in Lebanon.
- H_0 : there is no relationship between the IP and job satisfaction among faculty and staff employees in HEIs in Lebanon.
- H_3 : there is a negative correlation between the IP and job satisfaction among faculty and staff employees in HEIs in Lebanon.
- H_0 : the IP's impact on employee outcomes does not vary between introverts and extroverts.
- H_4 : the IP's impact on employee outcomes is higher among introverts compared to extroverts.
- H_0 : there is no significant moderating effect of POS on the IP's impact on employee outcomes.
- H_5 : higher POS decreases the negative effects of the IP on employee outcomes.

The conceptual framework of this study is illustrated in Figure 1.

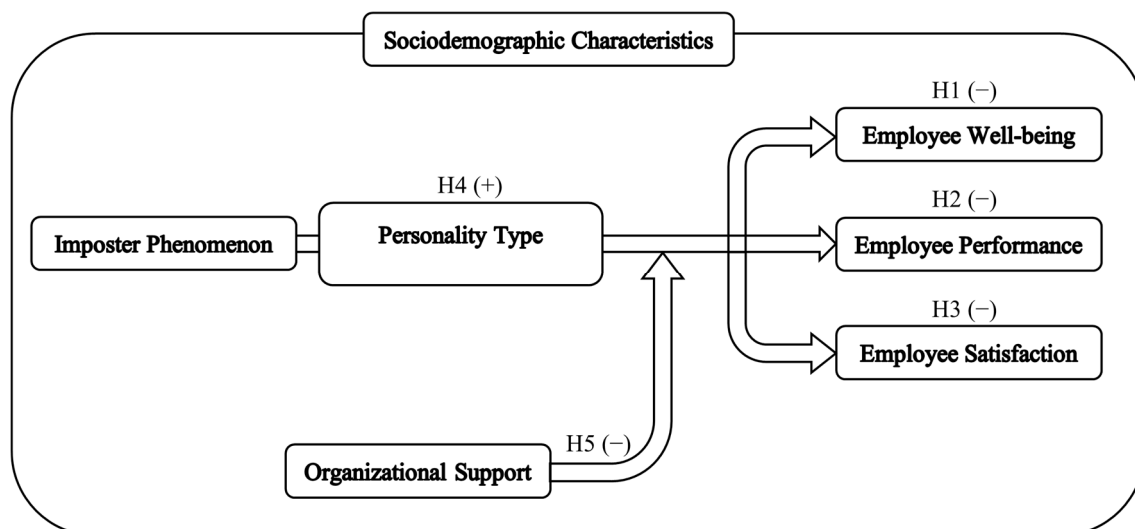


Figure 1. Conceptual framework (Source: Author).

The conceptual framework suggests that the IP and personality types act as independent variables, influencing employee well-being, performance, and job satisfaction, constituting dependent variables. POS plays the role of a moderating variable. Sociodemographic factors are included as control variables.

3. Methodology

3.1. Research Design

This study utilized the Research Onion Model (Saunders et al., 2023) to discuss the methodological choices.

This study was underpinned by a positivist philosophy that reflects the belief in a real, external, and independent reality, which exists regardless of individuals' perceptions. Researchers with a positivist philosophy test a given theory to comprehend the hypotheses under study, through controlled experiments, case studies, or surveys (Easterbrook et al., 2008; Myers & Avison, 2002). Guided by the scientific method, the research process was organized and followed a systematic approach to ensure the rigor and validity of the findings.

This study's perspective employs deductive reasoning and utilizes structured methodologies with large sample sizes, aiming to enhance the findings. The deductive approach's core is deriving theories from the existing literature and testing them through data collection to prove or reject the hypotheses posed (Pearl, 2014).

The methodological choice can be mono-method, multi-method, or mixed-method (Edmonds & Kennedy, 2016). This research utilizes a mono-method quantitative approach to explore how the IP affects employee well-being, performance, and satisfaction for both introverts and extroverts. Quantitative methods rely on statistical approaches, measurements, and predictive models to test the posed hypotheses (Vogt et al., 2014; Wohlin et al., 2012). The data collected contribute important knowledge to the literature and the understanding of the research problem(s).

For the strategy, this study employs a quantitative research method, which is often based on archival research, previous literature, surveys, and experiments. Relevant data on the IP, employee well-being, performance, and satisfaction were gathered through a survey targeting employees in HEIs in Lebanon.

The time horizon for this study is cross-sectional, which efficiently examines a particular phenomenon by collecting data at a given and specific period, through administering a questionnaire reflecting the research purposes to the participants. The timeframe allocated for data collection was 4 weeks, spanning from 20 November 2023 to 20 December 2023.

3.2. Population and Sampling

3.2.1. Research Population

The target population for this study includes faculty and staff employees working in HEIs in Lebanon. To ensure variety in organizational characteristics, this study included public and private HEIs, represented urban and rural areas, and varied in institutional size. The inclusion criteria included all academic and administrative employees currently working for any HEI in Lebanon, irrespective of demographic or job-related characteristics.

The estimate of the population size was completed based on publicly available databases, institutional directories, and statistical reports showing the number of employees of HEIs in Lebanon. According to estimates obtained from the Ministry of Education and Higher Education (MEHE) in Lebanon, there are approximately 44 HEIs across the country (MEHE, 2024), and these Higher Education Institutions hire several thousands of people in academic and administrative positions. This estimate was used in designing the sampling process to derive a representative sample.

3.2.2. Sample and Sampling Technique

The simple random sampling method was adopted for this study to ensure that every eligible participant in the defined population would receive an equal chance of being included in the sample. A list of all HEIs in Lebanon was developed based on public databases. The institutions were directly contacted through email to provide employee directories or facilitate internal communications with their faculty and staff. From institutions that provided directories or ensured internal dissemination, all faculty and staff who fit the inclusion criteria entered the recruitment pool. From other institutions where this was not feasible, potential participants were identified through professional networks, alumni associations,

and social media pages targeting their academic and administrative staff. Random selection took place from the recruitment pool to ensure participants were not biased.

However, while random sampling was considered, logistical limitations necessitated additional measures to maintain proportional representation, including balancing participant recruitment from public and private institutions, ensuring geographic representation between HEIs from urban and rural areas, and actively recruiting participants from both academic and administrative roles.

The final sample constituted a total of 155 participants from 16 HEIs in Lebanon, both public and private. Approximately 10.0% of the participants were from public HEIs and 90.0% from private HEIs. This is explained by the presence of only one public university in Lebanon. Respectively, 75.0% and 25.0% of participants were from rural and urban areas. The sample also included 79.0% faculty members and 25.0% administrative staff.

However, while this study aimed for a representative sample, several limitations occurred. Not all HEIs in Lebanon were reached upon request for responses, which may have limited the total pool used to recruit for this study. Participation was voluntary, and this could introduce response bias related to some segments being more willing to respond than others. Methods of distribution used, such as emails and social media, could have also excluded those who do not access such digital platforms consistently. Further research might tackle these limitations through the use of stratified sampling or larger institutional collaborations.

3.3. Techniques and Procedures

3.3.1. Data Collection

To answer the research questions, a structured online survey was developed on the cloud-based platform Google Forms and electronically distributed to the participants via emails and social media platforms. Potential participants and personal networks were identified and were selected randomly from different HEIs and were directly contacted through phone calls, emails, or texting via WhatsApp and LinkedIn platforms. Databases of Lebanese HEIs were also obtained, and emails were sent with invitations to contribute to this study. This study was introduced with its purpose explained to the participants. Consent was also obtained before starting the survey, which took about 10 min to be filled out. All faculty and staff employees (academic or administrative) at an HEI in Lebanon were deemed eligible to participate with no exclusion criteria imposed. Recruitment was closely monitored to ensure participation was balanced between institution types, across different geographic regions, and by type of employee.

The survey was structured based on validated measurement scales on the IP, individual personality type, employee well-being, performance, satisfaction, and POS. The structure of the survey was initiated with the introduction and consent form, followed by (1) sociodemographic data of participants, (2) the Clance IP Scale (CIPS), (3) the Brief Big Five Inventory Scale (BFI-10), (4) the World Health Organization-Five Well-being Index (WHO-5), (5) the Short Index of Job Satisfaction (SIJS), (6) the Short Version of Self-Assessment Scale of Job Performance (SJoP), and (7) the Survey of Perceived Organizational Support (3-item Form).

The introduction and consent were the initial display of the survey the participants viewed. Participants provided consent by clicking on all the provided options and then proceeding with the survey. Sociodemographic questions covered participants' age, gender, nationality, area of residency, marital status, background education, current university, role in the organization, years of experience, current job title, nature of current employment, total income, and being the sole source of household income.

The IP was measured by the CIPS 20-item scale developed by Clance (1985), as a reliable scale (previous $\alpha = 0.92$; Chrisman et al., 1995) to examine a person's self-reported attributes of the IP on a 5-point Likert-type scale ranging from 1 "not at all true", to 5 "very true". The total score for the overall CIPS ranged from 20 to 100, categorized as 40 or less (few IP characteristics), 41–60 (moderate IP experiences), 61–80 (frequently experienced IP characteristics), and above 80 (intense IP feelings) (Clance, 1985).

The BFI-10 scale (Rammstedt & John, 2007) was used to assess extroversion/introversion personality types—a short version of the Big Five Inventory (BFI; John et al., 1991). The scale consists of 10 phrase-like items, with two items per dimension for each Big Five domain. The items are rated on a 5-point scale extending from 1 "disagree strongly" to 5 "agree strongly". For the context of this study, only items 1 (reverse-scored) and 6 related to extroversion/introversion were used. A total sum score was determined, with higher scores (5 and above) indicating extroversion and lower scores (5 and below) indicating introversion.

The WHO-5 Well-Being Index examined participants' psychological well-being (Bech, 2004), through five brief non-invasive questions, scored on a scale of 0 ("at no time") to 5 ("all of the time"). Summation was performed to obtain the raw score, ranging from 0 to 25, and then multiplied by 4 to obtain a final score from 0 (lowest possible quality of life) to 100 (highest possible quality of life).

Employees' job satisfaction was measured by the self-report 5-Item Short Index of Job Satisfaction (SIJS), created from the original 18-item version by Brayfield and Rothe (1951), which demonstrated good internal consistency ($\alpha = 0.89$) (Judge et al., 2000). Items were rated on a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"), with two items reverse-scored. The overall total score ranged between 5 and 25. Higher scores indicated higher job satisfaction levels (Sinval & Marôco, 2020).

The short version of the Self-Assessment Scale of Job Performance (SJoP) examined participants' job performance (De Azevedo Andrade et al., 2020), encompassing 10 items and rated on a Likert scale ranging from 1 (never) to 5 (always). An overall mean of the full scale is advised when investigating the perception of job performance (De Azevedo Andrade et al., 2020).

POS was examined using the 3-item POS scale derived from Eisenberger et al. (1986) and demonstrated good reliability (previous $\alpha = 0.81$) and internal consistency (Eisenberger et al., 2002). Items were assessed on a 5-point Likert scale, extending from 1 "strongly disagree" to 5 "strongly agree", with the mean score of the ratings calculated (Worley, 2006).

3.3.2. Data Analysis

Appropriate statistical techniques were utilized on SPSS software version 25. Descriptive analysis was conducted, utilizing absolute frequencies and percentages for categorical variables, and means and standard deviations (SDs) for quantitative measures. Pearson correlation assessed linear correlations between the CIPS scale and the employee outcomes variables. The correlation coefficient values ranged from perfect negative correlation (-1) to perfect positive correlation (1). Three linear regression analyses were conducted using the Stepwise method and taking the employee outcomes variables as the dependent variables and the CIPS as the independent variable. Models were adjusted over various sociodemographic factors. The linear regression analysis was repeated with the same variables stratified by personality types. Moderation analyses using the PROCESS SPSS Macro version 3.4 model four explored the proposed moderation effects of POS on the relationship between the CIPS and the employee outcomes variables. The moderation effect was significant when the interaction between the independent variable and the moderator was significant. A p -value below 0.05 was deemed to be statistically significant.

3.4. Ethical Considerations

According to the Committee on Publication Ethics (COPE, 2000), effective research studies must be ethically approved. Considering that this study involves human participants, this research obtained ethical approval from the Modern University for Business and Science (MUBS) 's Institutional Review Boards before data collection. This study also followed ethical guidelines and ensured the anonymity, confidentiality, and voluntary participation of the participants in the online survey. Informed electronic consent was gained from all participants and the purpose and topic of this study were explained before filling out the survey. Data were handled securely and were used exclusively for scientific and research purposes only. Participants were free to withdraw from this study at any point without penalty. All data were anonymized to protect the identities of participants.

4. Research Findings

4.1. Sample Profile

Participants' sociodemographic characteristics are displayed in Table 1. A total of 155 participants from Lebanese HEIs participated in this study. Participants in the present study were mostly aged 31–43 (45.8%), females (69.0%), and Lebanese (100.0%). Almost half of the participants were residing in Mount Lebanon (43.9%) and were married with kids (52.9%) compared to other marital statuses. Higher education was the most common level among participants, with the majority holding a doctorate (47.1%) or Master's degree (40.6%). Participants' affiliations with universities were diverse, with a considerable number from universities (44.5%) other than MUBS (31.6%), LU (10.3%), AUB (7.1%), or LAU (6.5%). Most of the participants in this study were faculty members (74.2%), with less than 5 years of experience (49.0%). The largest group of participants consisted of instructors (39.4%), followed by other job titles. In addition, most of the participants had full-time employment (67.1%), and a monthly income higher than USD 1000 (43.2%). More than half of the participants (52.9%) were not the sole source of household income that their families relied on, while 47.1% of participants indicated that their family solely relied on their income.

Table 1. Sociodemographic characteristics of the participants (N = 155).

Variable	N (%)
Age (in years)	
18–30	33 (21.3%)
31–43	71 (45.8%)
44–56	39 (25.2%)
57 and above	12 (7.7%)
Gender	
Male	48 (31.0%)
Female	107 (69.0%)
Nationality	
Lebanese	155 (100.0%)
Lebanese and Other	2 (1.3%)
Area of Residency	
Akkar	1 (0.7%)
Bekaa	34 (21.9%)

Table 1. *Cont.*

Variable	N (%)
Beirut	34 (21.9%)
Mount Lebanon	68 (43.9%)
North Lebanon	8 (5.2%)
Nabatiyeh	2 (1.3%)
South Lebanon	4 (2.6%)
Kesrwen-Jbeil	4 (2.6%)
Marital Status	
Married with kids	82 (52.9%)
Married without kids	14 (9.0%)
Single	47 (30.3%)
Divorced	5 (3.2%)
In a relationship	7 (4.5%)
Background Education	
Highschool diploma or lower	2 (1.3%)
Vocational/technical license (vocational institute)	1 (0.6%)
Bachelor's degree	16 (10.3%)
Master's degree	63 (40.6%)
Doctorate	73 (47.1%)
University Currently Working at	
AUB	11 (7.1%)
LAU	10 (6.5%)
LU	16 (10.3%)
MUBS	49 (31.6%)
Others	69 (44.5%)
Role in Organization	
Faculty member (Academic departments)	115 (74.2%)
Staff member (Administrative departments)	32 (20.6%)
Faculty and Staff	8 (5.2%)
Years of Experience	
Less than 5 years	76 (49.0%)
5–10 years	34 (21.9%)
More than 10 years	45 (29.0%)
Current Job Title	
Instructor	61 (39.4%)
Assistant/ Associate professor	20 (12.9%)
Administrative	20 (12.9%)
Chairperson	8 (5.2%)
Others	46 (29.7%)

Table 1. *Cont.*

Variable	N (%)
Nature of Current Employment	
Full time	104 (67.1%)
Part-time	47 (30.3%)
Daily wage	2 (1.3%)
Contracted (monthly wage)	6 (3.9%)
Monthly Income	
<USD 500	35 (22.6%)
USD 500–USD 1000	53 (34.2%)
>USD 1000	67 (43.2%)
Family Relies on as a Sole Source of Household Income	
Yes	73 (47.1%)
No	82 (52.9%)

4.2. Hypotheses Testing

4.2.1. Scales Description

Table 2 reports the description of the mean, median, and Cronbach alpha of the scales used in this study. The mean score of CIPS was 44.42 ± 14.54 , suggesting moderate experiences of impostorism among participants. The mean score of BFI-10 was 5.63 ± 1.73 , implying that, on average, the respondents in this study tend toward an extroverted personality. The mean score of WHO-5 was 60.98 ± 21.07 , indicating a moderate to high possible quality of life experienced by participants. Participants had an overall high level of job satisfaction, with a mean score of 18.94 (SD ± 3.33) on SIJS. Similarly, the mean score of SJoP was 4.27 ± 0.70 , suggesting a high level of job performance. However, moderate organizational support (4.91 ± 1.40) was perceived by participants. Cronbach alpha indicated the excellent internal consistency of SJoP (0.946), CIPS (0.920), WHO-5 (0.909), and the Survey of POS (0.941), and the good internal consistency of SIJS (0.648), which was lower for the BFI-10 (0.270). In fact, the low internal consistency reflected by BFI-10 could be caused by the low number of questions (Tavakol & Dennick, 2011), considering that two questions have only been extracted from the original 10-item scale. Moreover, BFI-10 in this study serves a categorical purpose by classifying participants into introverts and extroverts and its primary goal is not to establish relationships or correlations between the study variables; thus, the impact of the low internal consistency may be mitigated, and the scale may still serve its intended purpose.

Table 2. Description of the scales used in this study.

	Mean \pm SD	Minimum	Maximum	Median	Cronbach Alpha
CIPS	44.42 ± 14.54	20.00	85.00	43.00	0.920
BFI-10	5.63 ± 1.73	2.00	10.00	6.00	0.270
WHO-5	60.98 ± 21.07	12.00	100	60.00	0.909
SIJS	18.94 ± 3.33	5.00	25.00	19.00	0.648
SJoP	4.27 ± 0.70	2.00	5.00	4.50	0.946
3-Item Survey of POS	4.91 ± 1.40	1.00	7.00	5.00	0.941

4.2.2. Pearson Correlations

The correlation between the IP and employee well-being, job performance, and job satisfaction is reported in Table 3. Significantly, the CIPS was negatively correlated with the reported WHO-5 scores ($r = -0.271$, $p = 0.001$) (Figure 2), SIJS scores ($r = -0.208$, $p = 0.009$) (Figure 3), as well as SJoP scores ($r = -0.260$, $p = 0.001$) (Figure 4). These results suggest that higher IP levels are associated with lower employee outcomes ($p < 0.05$).

Table 3. Correlation between the IP and employee well-being, job performance, and job satisfaction.

Variable	WHO-5	<i>p</i> -Value	SIJS	<i>p</i> -Value	SJoP	<i>p</i> -Value
	Correlation Coefficient		Correlation Coefficient		Correlation Coefficient	
CIPS	−0.271	0.001	−0.208	0.009	−0.260	0.001

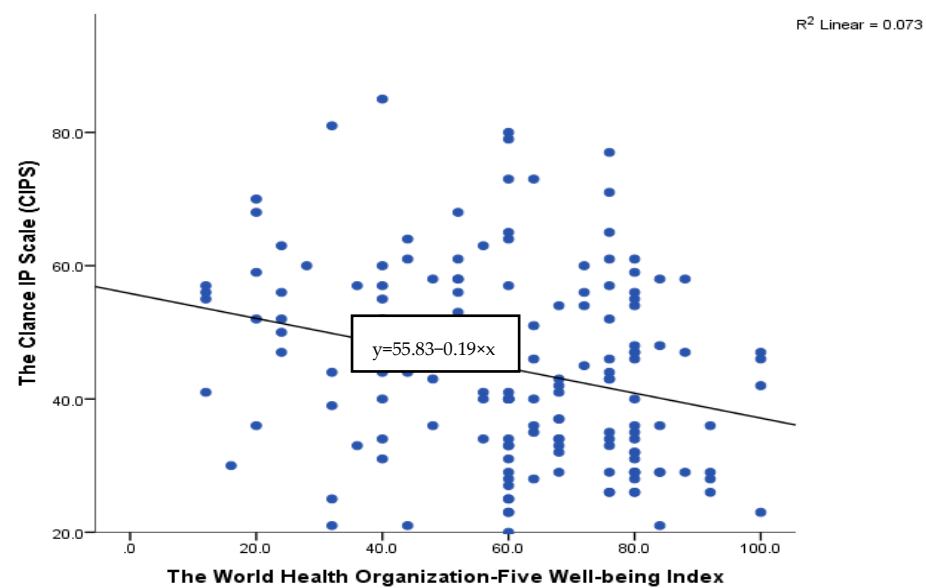


Figure 2. Pearson correlation analysis between the CIPS and the WHO-5.

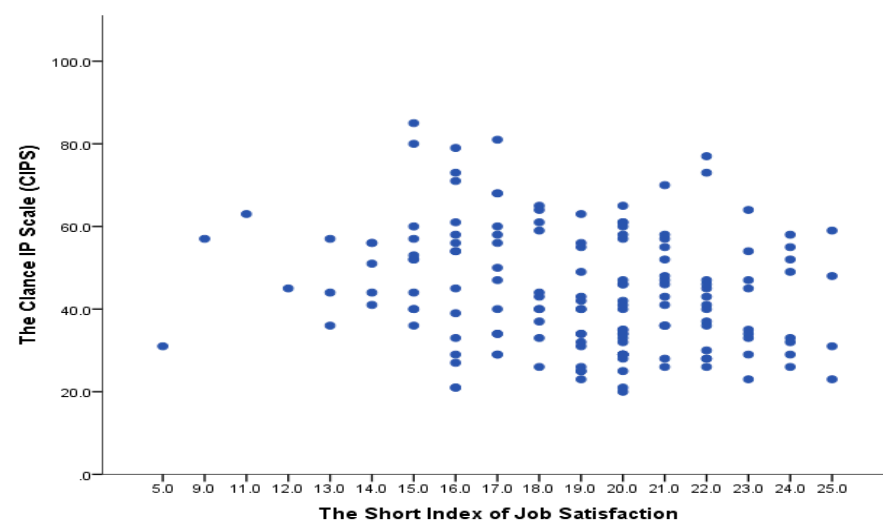


Figure 3. Pearson correlation analysis between the CIPS and SIJS.

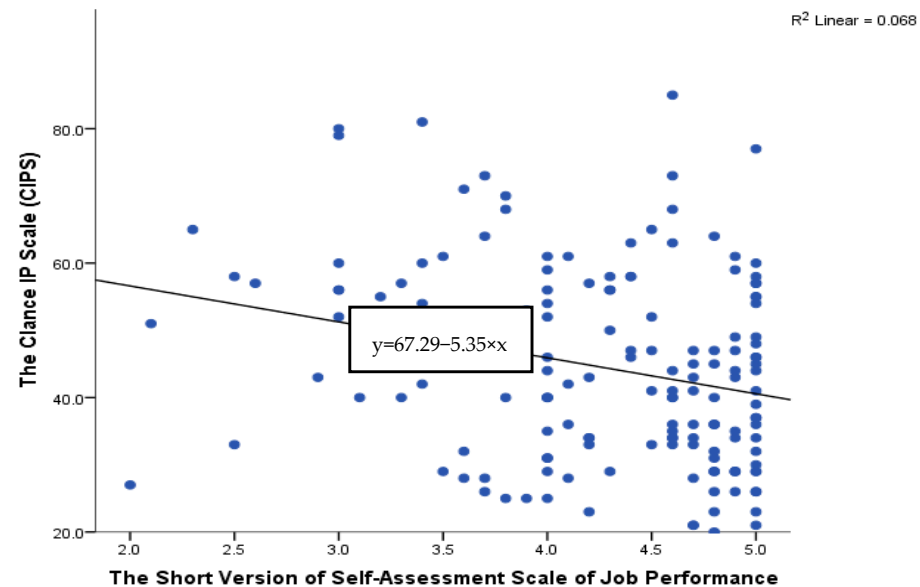


Figure 4. Pearson correlation analysis between the CIPS and SJoP.

4.2.3. Multivariable Analyses

To estimate the probability of association between the IP and employee outcomes among participants, the multivariable linear regression of study variables, taking employee well-being, performance, and satisfaction as the dependent variables and the CIPS as the independent variable, was conducted as shown in Table 4. Three linear regression models were performed, taking the WHO-5, SIJS, and SJoP scales as the dependent variable, respectively. The models were adjusted over age, gender, years of experience, monthly income, nature of current employment, family reliance on as a sole source of household income, current job title, and the university currently working at. The results showed that CIPS scores were significantly correlated with lower WHO-5 scores (Table 4, model 1), lower SIJS scores (Table 4, model 2), as well as lower SJoP scores (Table 4, model 3). Participants who were experiencing the IP were 0.391 times less likely to experience prominent levels of quality of life ($\beta = -0.391$). Similarly, participants with higher IP were 0.041 times less likely to experience high levels of job satisfaction ($\beta = -0.041$), and 0.013 times less likely to experience prominent levels of job performance ($\beta = -0.013$). In other words, for each unit increase in CIPS, there is a corresponding decrease of 0.391 units in WHO-5, 0.041 units in SIJS, and 0.013 units in SJoP.

Table 4. Multivariable linear regression #1.

Taking Employee Well-Being, Performance, and Job Satisfaction as the Dependent Variables and the CIPS as the Independent Variable						
	Model 1: WHO-5		Model 2: SIJS		Model 3: SJoP	
	UB (95.0% CI)	<i>p</i> -Value	UB (95.0% CI)	<i>p</i> -Value	UB (95.0% CI)	<i>p</i> -Value
CIPS	−0.391 (−0.601; −0.181)	<0.001	−0.041 (−0.075; −0.007)	0.019	−0.013 (−0.020; −0.005)	0.001

The three models were adjusted over age, gender, years of experience, monthly income, nature of current employment, the family relies on as a sole source of household income, current job title, and the university currently working at. UB: Unstandardized Beta, CI: Confidence interval.

Table 5 reported the multivariable linear regression analysis stratified by the type of personality (introverts/extroverts). Three analyses were performed, taking employee well-being (Analysis 1), job satisfaction (Analysis 2), and job performance (Analysis 3) as dependent variables and the CIPS as the independent variable. The three models were adjusted over age, gender, years of experience, monthly income, nature of current em-

ployment, family relies on as a sole source of household income, current job title, and the university currently working at. Results indicated a negative correlation between CIPS and employee well-being for both introverts and extroverts. In the first analysis, taking well-being as the dependent variable, the results reflected that the association was stronger for introverts, as participants with introvert personalities experiencing the IP were 0.849 times less likely to experience high levels of quality of life ($\beta = -0.849$) compared to participants with an extroverted personality, who were only 0.228 times less likely to experience high levels of quality of life ($\beta = -0.228$).

Table 5. Multivariable linear regression analysis stratified by the type of personality (introverts/extroverts).

Analysis 1: Taking the Employee Well-Being as the Dependent Variable and the CIPS as the Independent Variable						
	Introverts' Personality			Extroverts' Personality		
	UB (95.0% CI)	SB	<i>p</i> -Value	UB (95.0% CI)	SB	<i>p</i> -Value
CIPS	−0.849 (−1.259; −0.440)	−0.469	<0.001	−0.228 (−0.454; −0.001)	−0.182	0.049
Analysis 2: Taking Job Satisfaction as the Dependent Variable and the CIPS as the Independent Variable						
	UB (95.0% CI)	SB	<i>p</i> -Value	UB (95.0% CI)	SB	<i>p</i> -Value
CIPS	−0.001 (−0.092; 0.090)	−0.004	0.980	−0.059 (−0.099; −0.019)	−0.299	0.004
Analysis 3: Taking the Job Performance as the Dependent Variable and the CIPS as the Independent Variable						
	UB (95.0% CI)	SB	<i>p</i> -Value	UB (95.0% CI)	SB	<i>p</i> -Value
CIPS	−0.001 (−0.019; 0.018)	−0.010	0.956	−0.013 (−0.023; −0.002)	−0.273	0.023

The three models were adjusted over age, gender, years of experience, monthly income, nature of current employment, family relies on as a sole source of household income, current job title, and the university currently working at. UB: Unstandardized Beta, SB: Standardized Beta; CI: Confidence interval.

In the second analysis, taking job satisfaction as the dependent variable, the results displayed that the CIPS scores were significantly linked to lower job satisfaction for extroverts, where extroverts experiencing the IP were 0.059 times less likely to experience high levels of job satisfaction ($\beta = -0.059$). In the third analysis, taking job performance as the dependent variable, the results showed that the CIPS was significantly associated with lower job performance for extroverts, where participants who were extroverts experiencing the IP were 0.013 times less likely to experience prominent levels of job performance ($\beta = -0.013$). However, no statistically significant association between CIPS and job satisfaction, as well as between CIPS and job performance for introverts, was indicated in this study ($p > 0.05$).

4.2.4. Moderation Analysis

The regression analysis, taking the employee outcome variables as the dependent variables moderated by the POS scale, is shown in Table 6. The results showed that a moderation effect was found only in the model taking the Short Index of Job Satisfaction as the dependent variable. Key sociodemographic and employment-related variables including age, gender, years of experience, income, type of employment, job title, and university affiliation were controlled to prevent the observed moderation effects from being confounded by other factors. The moderation analysis revealed a significant interaction effect (CIPS*POS, $b = 0.025$, 95.0% CI [0.001, 0.049], $p = 0.040$), indicating that organizational support moderates the relationship between CIPS and job satisfaction. For the other two models, taking well-being and job performance as the dependent variables, no moderation effect of POS was found ($p > 0.05$). Although a formal change in R^2 was not calculated, the inclusion of POS as a moderating variable significantly contributed to explaining the variance in job satisfaction, as evidenced by the significant interaction term.

Table 6. Multivariable linear regression #2.

Taking Employee Well-Being, Performance, and Job Satisfaction as the Dependent Variables and the CIPS as the Independent Variable Moderated by the POS Scale						
	Model 1: WHO-5		Model 2: SIJS		Model 3: SJoP	
	UB (95.0% CI)	<i>p</i> -Value	UB (95.0% CI)	<i>p</i> -Value	UB (95.0% CI)	<i>p</i> -Value
CIPS	−0.335 (−0.558; −0.112)	0.003	−0.028 (−0.060; 0.004)	0.009	−0.009 (−0.016; −0.002)	0.009
3-Item Survey of POS	2.855 (0.550; 5.160)	0.015	1.042 (0.704; 1.381)	<0.001	0.167 (0.092; 0.242)	<0.001
CIPS * 3-Item Survey of POS	0.123 (−0.041; 0.287)	0.141	0.025 (0.001; 0.049)	0.040	0.003 (−0.001; 0.009)	0.168

UB: Unstandardized Beta, CI: Confidence interval.

Overall, this study included diverse sociodemographic characteristics among participants. Scales measuring impostorism, quality of life, job satisfaction, job performance, and POS showed moderate to high scores with good internal consistency. Results revealed that higher impostorism levels were linked to lower employee well-being, job satisfaction, and job performance, even when adjusting for demographic and employment factors. Introverts showed a negative association between impostorism and well-being, while extroverts had significant negative associations with both job satisfaction and performance. POS only moderately influenced the association between impostorism and job satisfaction.

5. Discussion

This is the first study to highlight IP experiences in the Lebanese context and delve into their impact on employee well-being, performance, and satisfaction among faculty and staff at HEIs. Through the data obtained, this study highlights the existing gap in the literature regarding the effect of the IP on employee well-being, performance, as well as satisfaction in the context of HEIs in recent years, in addition to the difference among introverts and extroverts in experiencing this effect. Consequently, this section attempts to discuss the findings of this study in light of the existing literature.

Participants in this study were mostly aged 31–43, females, Lebanese, and affiliated with diverse universities. This gender difference can be explained by the increased participation of women in leadership positions due to Lebanon's strong entrepreneurial environment (Hejase et al., 2013), specifically in universities, where women represent more than half of the roles (Tlaiss, 2013; USAID Lebanon, 2017). Almost half of the participants were married with kids and residing in Mount Lebanon, which could be possibly due to the presence of most HEI campuses in Mount Lebanon (USAID Lebanon, 2017). Further, higher education was the most common level of education among participants, which is reasonable considering the targeted sample of this study. Most of the participants were full-time faculty members, and instructors, with less than 5 years of experience, and a monthly income higher than USD 1000. A likely reason for this is the unprecedented emigration of faculty members and professionals from Lebanon since 2021, which forced HEIs to hire early-career scholars and implement salary rescue plans (Al Maalouf & Al Baradhi, 2024). Additionally, more than half of the participants were not the sole source of household income that their families relied on, which could also reflect the economic hardships faced by faculty and staff employees amid the Lebanese crisis (Al Maalouf et al., 2023).

The mean score of CIPS suggested moderate experiences of impostorism among participants, which was similar to the findings of other studies among HEI faculty (Hutchins, 2015; Langford & Clance, 1993; Macias-Moriarity et al., 2023; Vaughn et al., 2020). BFI-10 scores implied that, on average, the participants tend toward an extroverted personality, which could be possibly influenced by the higher education field, which requires employees to have regular contact with people, communication skills, and to communicate in a more

confrontational style (Rosenlacher, 2020). However, a bigger sample might have yielded a higher percentage of personality type differences.

Contrary to what was expected, the results indicated that a moderate to high possible quality of life was experienced by the participants. This result is surprising as employee well-being is often impacted by economic conditions (Brauchli et al., 2013); however, it might be due to the slight economic recovery in Lebanon for the first time since 2022. Similarly, participants had an overall prominent level of job satisfaction and performance, which corresponds with other studies in the Middle East (Al-Ajmi, 2001; McElwee & Al-Riyami, 2003) and could be caused by multiple extrinsic, intrinsic, and relational motivation factors (Tlaiss, 2013), and participants' educational background (Khan et al., 2019). However, moderate organizational support was perceived by participants, which could be caused by the destabilization of the HEI sector due to the multi-layered crisis in Lebanon (Yacoub & Al Maalouf, 2023).

Moreover, five hypotheses were investigated in this study and yielded promising results for future studies, as discussed below.

5.1. *H₁: Impostor Phenomenon and Employee Well-Being*

H₁ addressed the association between the IP and employee well-being, assuming that the IP negatively affects the well-being of faculty and staff in HEIs in Lebanon. This hypothesis was proven to be true as data showed that, significantly, the CIPS was negatively correlated with the reported WHO-5 scores, with a decrease of 0.391 units in WHO-5 for each unit increase in CIPS. These results are consistent with earlier studies concluding that mental and emotional well-being is negatively correlated with the IP (Byrom et al., 2022; Cokley et al., 2013; Hutchins, 2015). This association could be attributed to the fear of failure and overwhelming attention to one's inadequacies caused by the IP, which weakens academic self-concept (Wang et al., 2019).

5.2. *H₂: Impostor Phenomenon and Job Performance*

The relationship between the IP and employee performance was addressed in H₂, assuming that the IP negatively affects the performance of faculty and staff in HEIs in Lebanon. The data obtained in this study confirmed this hypothesis as the CIPS scores were negatively correlated with the reported SJoP scores, with a decrease of 0.013 units in SJoP for each unit increase in CIPS. These results are in line with the literature, signifying that internalizing IP feelings would negatively affect work performance in HEIs (Christensen et al., 2016). This result could be triggered by the few years of experience indicated among participants (less than 5 years) or might be caused by the failure of participants experiencing the IP to reflect confidence in their abilities or perceive their jobs as purposeful, meaningful, or empowering (Ling et al., 2020).

5.3. *H₃: Impostor Phenomenon and Job Satisfaction*

The results obtained further supported H₃, addressing the association between the IP and job satisfaction, where CIPS was found to be significantly correlated with lower SIJS scores, with a decrease of 0.041 units in SJoP for each unit increase in CIPS. These findings are consistent with earlier studies examining the effects of the IP on job satisfaction (Clark et al., 2022; Hutchins et al., 2018; Vergauwe et al., 2015). This could be clarified by the tendency of individuals experiencing the IP to implement avoidant strategies that lead to emotional exhaustion, which, in turn, may cause individuals to perceive their job as exposing their inadequacies and thus decrease their job satisfaction (Hutchins et al., 2018).

5.4. *H₄: Impostor Phenomenon's Effects on Introverts vs. Extroverts*

H₄ addressed the difference in the IP's impact on employee outcomes between introverts and extroverts, with these impacts being higher among introverts. This hypothesis was only partially confirmed. Although results showed that introverted participants experiencing the IP were less likely to experience high levels of quality of life compared to extroverts, a higher impact of the IP on job performance and satisfaction was noted among extroverts compared to introverts. Per the literature, introverts were found to be more prone to experience and maintain IP feelings (Bernard et al., 2002; Crouch et al., 1991; Kodweis et al., 2023). These findings could be possibly explained by the challenges faced by introverts in workplaces due to tokenism, unconscious bias, and cultural favoritisms supporting extroversion (Kanter, 1977; Kaufman, 2014; Santos, 2015). Additionally, the literature further argued that introverts tend to hide their personality aspects from the world and are more likely than extroverts to reflect being shy, anxious, or having low self-confidence, some of which form frequent attributes experienced by impostors (Langford & Clance, 1993).

It was, however, evident that employee satisfaction and performance are affected by the IP more intensively among extroverts. These results could be possibly attributed to the specific personality characteristics that extroverts display, including engagement in more social interactions and networking, external validation seeking, risk-taking, expressive communication, and pressure to meet organizational expectations (Suliman, 2014), which, when coupled with IP experiences, including comparing themselves to others, perceiving their achievements as less significant, and feeling a misalignment with expectations (Clance & Imes, 1978), may exacerbate their dissatisfaction and negatively affect their job performance.

5.5. *H₅: Perceived Organizational Support Moderating Impostor Phenomenon's Effects*

The results of this study were partially supportive of H₅, addressing the role played by the perceived organizational support in moderating the IP's impact on employee outcomes. Interestingly, this moderation effect was only found effective on the impact of the IP on job satisfaction, while no moderation was played by organizational support for the impact of the IP on employee well-being and job performance. The moderation that organizational support caused on the IP's relation with satisfaction was addressed by previous studies (Eisenberger et al., 2002; Hutchins, 2015). However, the lack of organizational support moderation found between the IP and employee well-being and job performance was the opposite to previous studies that claimed that POS plays a key role in reducing the effects of the IP on employee outcomes, by reinforcing employees' confidence and coping abilities (Crawford et al., 2016; Haar & De Jong, 2024; McDowell et al., 2015). Possible reasons for this discrepancy in results could be the cultural differences between Lebanon and Western countries, in which previous studies were conducted, the organizational climate of Lebanese HEIs, and external environmental factors specific to the Lebanese context not addressed in the literature.

Overall, findings from this study provided additional support to the literature examining the associations between the IP and employee outcomes. Most importantly, this study offered a deeper understanding of how employee outcomes are connected to the IP in the context of HEIs. Further, this study highlighted a gap in the literature and examined the role of personality types and POS in the association between the IP and employee outcomes in HEIs. The findings discussed imply that addressing the IP in HEIs and promoting interventions targeting the IP are essential to enhance faculty and staff well-being, performance, and satisfaction.

6. Conclusions and Recommendations

6.1. General Conclusions

Despite the perceived significance and prominence of the IP in Western settings, our familiarity with IP experiences in Lebanon is yet limited. Moreover, most of the literature has focused on the effects of the IP on employees, with nominal attention paid to its relationship with personality types and organizational factors. Accordingly, this is the first study in Lebanon initiated as an attempt to fill this gap, focusing on the effect of the IP on the well-being, job satisfaction, and job performance of faculty and staff in HEIs in Lebanon, with a particular focus on the difference of this impact between introverts and extroverts, and the moderating role played by the perceived organizational support. A quantitative, deductive approach was implemented with a sample of 155 participants. The findings of this study showed that the proposed objectives were met. The IP was theoretically expected to decrease employee well-being (H_1), performance (H_2), and job satisfaction (H_3); these three hypotheses were confirmed. Introversion was hypothesized to significantly increase the IP's impacts (H_4), while POS was expected to decrease the IP's effects (H_5); both hypotheses were partially confirmed. These findings suggest that the negative effect of the IP on employee outcomes cannot be overlooked. The results also emphasize the importance of considering personality types and POS when examining the effects of the IP. This study thus contributes to the existing literature and to a better understanding and insights into IP experiences among employees in HEIs and the role played by their personalities and organizations in amplifying or reducing these experiences.

6.2. Study Limitations

This study faced numerous challenges affecting its scope and generalizability of its findings. Firstly, the substantial gap in the literature regarding the IP and its impact on employee outcomes, the novelty of IP experiences in Lebanon with participants unfamiliar with IP concepts, and the multifaceted crises the country has been facing have potentially constrained this study's sample. Moreover, this study acknowledged the subjective nature of IP experiences, and participants' accurate self-assessment of their IP experiences and personality types, questioning if it reflects unawareness or accurate reflections of their capabilities. This reliance on self-reported data is susceptible to social desirability biases, coupled with unmeasured or unknown variables, external factors, and variations in cultural contexts. Despite attempts to mitigate these biases through anonymous evaluations, participants may still be influenced and potential impacts on the findings should be acknowledged. Demographic factors further played a role in this study's limitations, with a predominant representation of female participants, residents of Mount Lebanon, married individuals with children, and faculty members with less than five years of experience. Additionally, time constraints significantly influenced participant responses and this study's sample, possibly affecting data quality.

Methodologically, the cross-sectional design hindered establishing causal links between the IP and employee outcomes, highlighting the need for experimental or longitudinal designs. The reliance on quantitative measures and the absence of qualitative insights might have also overlooked essential aspects of the variables studied. Furthermore, the poor internal consistency of the BFI-10 raises concerns about the reliability of the measurement which could affect the scale's ability to accurately capture the intended construct across diverse samples.

Such limitations call for caution when generalizing the results and researchers and practitioners should consider these constraints when applying this study's outcomes in different contexts or making broad inferences.

6.3. Recommendations and Practical Implications

The current study emphasized the negative effects of the IP in HEIs. According to the findings, HEIs in Lebanon are urged to proactively identify and acknowledge IP experiences among their faculty and staff, highlighting the necessity for continued efforts from HR professionals to promote support structures and interventions to address such experiences.

To alleviate the negative consequences of the IP, organizations should develop specific intervention programs, taking into consideration both individual and organizational factors. Institutionally, creating an environment conducive to open discussion about impostorism can go a long way in lessening its stigma and encouraging workers to seek accessible intervention avenues. Implementing mentoring programs, peer networks, and career development programs can build confidence and direction for workers in dealing with their experiences of impostorism (Leung, 2006). In addition, departments of human resources can undertake thorough assessments in an endeavor to measure the level of impostorism prevalent in workers and utilize evidence-based interventions to tailor interventions appropriately.

On an individual basis, HR practitioners can play a pivotal role by implementing strategies such as active coping techniques, a culture rewarding “smart mistakes,” and developmental conversations (Crawford et al., 2016), as well as promoting authenticity among employees (Dancy & Brown, 2011). Training programs focused on reframing, cognitions, efficacy, and resilience can help counteract feelings of inadequacy and, at the same time, promote a balanced and objective appraisal of oneself. In addition, creating performance review structures that allow for positive feedback about both strengths and weaknesses, in an environment that promotes a growth orientation and not debilitating feelings of inferiority, is important.

One of the key observations in this study involves personality types, work environments, and experiences with regard to the IP, and an awareness of such factors must be considered in planning for human resources. Introverted workers, who can present with increased susceptibility to impostorism, can be helped through interventions consisting of individualized coaching, confidence courses, and purposeful facilitated networks to build a feeling of community and confidence in one’s capabilities. Extraverted workers can, in contrast, benefit through specific interventions such as guided discussion and group affirmation processes. Given the role played by POS in moderating experiences with the IP, companies must make an earnest effort to strengthen workers’ feelings of value through transparent communications and a safe psychological environment in work (Gottlieb et al., 2020).

Mental wellness programs and interventions for mental wellness must, in addition, become accessible and actively encouraged to reduce stigma for expert intervention-seeking behavior. Frequent follow-up with workers, work–life balance, and diversity and inclusion programs must become part of institutional policies to develop a model for overall wellness for workers (Fernández, 2020). Leadership, including immediate manager and supervisor, must receive training in developing key competencies for identifying symptoms of impostorism, offering positive feedback, and creating a supportive and positive work environment (Hutchins, 2015).

Beyond immediate workplace interventions, HEIs should collaborate with external stakeholders—including policymakers, psychologists, and organizational behavior specialists—to develop industry-wide best practices for addressing impostorism. Comparative research across different HEI contexts, including international settings, could further refine these strategies and enhance their applicability across various institutional and cultural environments.

By proactively adopting these comprehensive measures, HR professionals and organizational leaders can create a more supportive, inclusive, and psychologically safe work environment. Addressing impostorism holistically—by integrating psychological insights,

tailored interventions, and organizational best practices—will not only enhance employee well-being but also drive higher job satisfaction, stronger performance, and a more engaged workforce within HEIs in Lebanon and beyond.

6.4. Theoretical Implications and Future Research

This study's exploration of the IP within Lebanese HEIs reveals significant theoretical insights, highlighting the substantial influence of the IP on employee outcomes, and advocating for refining existing models related to psychological perspectives on impostorism. Thus, integrating these findings into well-being, job performance, and satisfaction theories, organizational support models, and personality theories enhances the understanding of how the IP contributes to overall employee experiences.

Additionally, the influence of personality type and organizational support within the IP context is an area warranting exploration. This study advocates for exploring introvert-specific and extrovert-specific coping mechanisms for the IP's impacts on employee experiences. Investigating the mediating role of POS in the impact of the IP, particularly in academic settings, is also emphasized.

Future research suggestions encompass investigating the IP among employees across varied HEI settings, stressing the need for gender-balanced samples to understand gender differences. Longitudinal and mixed-methods studies are also advised to trace the trajectory of impostorism over time and understand its effects on employee outcomes. Moreover, future research directions involving exploring relationships between personality traits and other variables may need to revisit the reliability of the BFI-10 scale or consider alternative measures.

In addition, through employing sound statistical techniques, such as Pearson correlation, stepwise linear regression, and moderation analysis through the use of the PROCESS SPSS Macro, this study proposes that future studies could make a more significant contribution by utilizing Structural Equation Modeling (SEM) in creating a deeper understanding of the complex relationships between impostorism, workplace performance, and workplace support. Employing SEM would enable a proper examination of mediator and moderator variables, to develop sophisticated theoretical understandings of these relations.

Furthermore, in addition to such quantitative approaches, future studies could benefit from utilizing qualitative approaches, such as in-depth interviewing, in an attempt to gain a deeper and richer understanding of individual experiences of the IP and its consequences in work settings. Broadening the field of investigation beyond Lebanon through comparative studies between and amongst cultures and work settings, for example, European academic settings and military universities could yield insightful information regarding different forms of impostorism in disparate work environments. Undertaking comparative studies in such a manner could enable the development of a deeper theoretical model by describing cross-cultural variation and institution-specific factors in shaping experiences of impostorism.

This study further encourages delving into potential antecedents of impostorism to craft targeted interventions personalized to personality types and centered on cognitive adjustments to counteract the IP's adverse impacts on employees' experiences in HEIs.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study. Participants completed an anonymous online survey after reading the explanation of the topic and the written consent form, ensuring their confidentiality and anonymity were protected and explicitly agreeing to participate in the study. The data collected was handled securely and was exclusively used for scientific and research purposes. Participants were free to withdraw from this study at any point without penalty.

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