

# LUCKY CHEATERS: UNDERSTANDING THE HUNGARIAN PROFESSIONAL ENVIRONMENT EFFECTS OF THE IMPOSTOR SYNDROME

Received: 8. 2. 2023.

Accepted: 22. 7. 2025.

DOI <https://doi.org/10.30924/mjcmi.30.2.9>

Original scientific paper



## ABSTRACT

In psychology, impostor syndrome refers to a cognitive distortion that prevents individuals from experiencing a genuine sense of accomplishment in relation to their work performance. The condition was first identified in 1978 by psychologists Pauline Rose Clance and Suzanne Imes, who initially believed it to be a phenomenon primarily affecting women. However, subsequent research has shown that impostor syndrome impacts approximately 70% of employees at some point in their careers.

This study examines the prevalence of the phenomenon among the surveyed workers, identifies who is most affected, and explores its impact on individual performance and career development. Another important objective is to determine the extent to which the syndrome hinders or, conversely, motivates individual performance.

The research was based on a questionnaire survey conducted in spring 2022 among Hungarian employees. The survey assessed the prevalence of impostor syndrome by gender, age, and education level. Respondents were also asked about the age at which the phenomenon first appeared, the number of years of work experience since its onset, and its perceived impact on their job performance. The data were analysed using cross-tabulation and statistical testing.

The results indicate that impostor syndrome remains present in 86.4% of respondents, while only 13.6% reported that it has diminished with age and work experience. The phenomenon primarily affected women with a university degree, for whom it represented a persistent and ongoing sense of internal anxiety. The intensity of impostor syndrome tends to decrease with age and experience, showing a mild to moderate effect over time. Overall, the findings suggest that the syndrome may have a slightly positive effect on performance, as its inhibiting influence tends to weaken with increasing age.

The findings of this study provide valuable insights into the manifestation of impostor syndrome within the Hungarian labour market and its implications for job performance. Moreover, they establish a foundation for future international comparative studies, enabling analyses across different cultural and economic contexts. Future research could expand the sample size, explore sectoral and regional specificities, distinguish between managerial and non-managerial roles, and examine the characteristics of impostor syndrome among younger workers (under 25) who are at the beginning of their careers.

**KEYWORDS:** *impostor syndrome, internal anxiety, work performance, experience of success*

\* University of Pécs Faculty of Business and Economics, [asvanyizs@ktk.pte.hu](mailto:asvanyizs@ktk.pte.hu), (corresponding author)

\*\* University of Pécs Faculty of Business and Economics

\*\*\* University of Pécs Faculty of Business and Economics

\*\*\*\* University of Pécs Faculty of Business and Economics

## INTRODUCTION

The term 'lucky cheater' describes a feeling associated with impostor syndrome, where someone doubts their achievements and believes their success comes from luck or having unintentionally misled others rather than from their own abilities. *Impostor syndrome*, also known as the *imposter phenomenon* or *impostorism*, was first described by psychologists Clance and Imes (1978), who surveyed more than 150 highly qualified women excelling in their professional or academic pursuits to explore how they perceived their achievements. (In this study, the term *impostorism* is used interchangeably with *impostor syndrome*, as both refer to the same psychological phenomenon.) Although these women received regular external validation and positive feedback for their accomplishments, they did not internalize these experiences as genuine successes and therefore perceived themselves as "impostors." When asked about the reasons for their achievements, some participants attributed them to luck, while others felt that their abilities were overestimated by others.

Clance and Imes argued that this mental framework of imposter syndrome was shaped by factors such as gender stereotypes (for example, the belief that a successful woman loses her femininity, which can make success appear threatening) and certain family dynamics. Their research suggested that the women in the study experienced symptoms of generalized anxiety, self-doubt, depression, and frustration, all stemming from their inability to meet self-imposed performance standards. Overall, the *impostor phenomenon* describes a psychological experience of intellectual and professional fraudulence (Clance & Imes, 1978).

The concept of *imposter syndrome*, first introduced by Clance and Imes (1978), describes individuals who typically demonstrate high levels of achievement yet experience persistent anxiety regarding their success. This anxiety arises from the belief that, despite outward accomplishments, they are not as competent as others perceive them to be. Because they fail, or only partially succeed, in internalising their achievements, they experience continuous psychological stress. In this state, individuals live with a constant fear that their perceived fraudulence might be exposed to others, will eventually be exposed to others (Clance & Imes, 1978).

Later, Harvey and Katz (1985) identified three principal indicators of the syndrome. According to their findings, impostor syndrome may be present if a person (1) believes they are deceiving others into overestimating their abilities; (2) attributes personal success not to ability or knowledge, but to external factors such as luck or an evaluator's misjudgement; and (3)

lives in constant fear of being exposed as a fraud.

Young (2011) observed that individuals affected by impostor syndrome are often adept at rationalising their success. Common self-reflective explanations include statements such as: "I was lucky," "I was just in the right place at the right time," "I'm successful because they like me," "If I can do it, anyone else can," "I had a lot of help," "I had good connections," "They just wanted to be nice to me," or "They just felt sorry for me" (Young, 2011, pp. 18–19).

In our study, we seek to answer the following research questions:

- (1) How widespread is this phenomenon in today's Hungarian labour market?
- (2) Who is affected by it? (in the research, we consider it necessary to analyze male and female participants separately, given that gender may influence the development of the variables under investigation) and, last but not least,
- (3) What impact does it have on individuals' work performance and career development?
- (4) To what extent does the syndrome hinder or, conversely, motivate individual job performance?

We also assume that if *imposter syndrome* is regarded as a stress factor, its effects cannot be exclusively negative. Following Selye's (1976) concept of stress, encountering stressors may in fact be beneficial, provided that individuals understand the underlying mechanisms and are able to adapt their life philosophy accordingly.

Based on these research questions, we formulated the following three hypotheses:

H1: *The syndrome primarily affects women with tertiary education.*

H2: *As work experience increases, the intensity of impostorism decreases.*

H3: *Impostorism negatively affects individual career development.*

In this paper, we first identify which groups are most affected by impostor syndrome according to the literature. We then present the methodology and main findings of our research conducted in Hungary, evaluate which of our hypotheses are supported, and conclude by outlining directions for future research on this topic.

## WHO IS AFFECTED BY IMPOSTOR SYNDROME?

Clance and Imes initially believed that the *impostor phenomenon* primarily affected women and was closely linked to the world of work. However, subsequent studies (Harvey, 1981; Cozzarelli & Major, 1990; Leary et al., 2000) have shown that no clear—let alone sig-

nificant—gender differences can be associated with impostorism. According to some authors (Kolligian & Sternberg, 1991), impostor syndrome is most prevalent among young people at the beginning of their careers and tends to decline with age, or appears among individuals with little or no formal education. This claim, however, was challenged by Vergauwe et al. (2015), who found that impostor feelings are also common among experienced managers with proven track records, for which no straightforward explanation was evident.

Over time, researchers have increasingly agreed that the development of the syndrome is linked to the specific, often disadvantaged, circumstances of the individual. Those entering education or employment with some form of pre-existing difficulty or disadvantage experience heightened pressure to perform. This pressure to conform, coupled with a fear of failure, intensifies the stress associated with potential “exposure” as a fraud (Austin et al., 2009; Bernard et al., 2018). For these individuals, coping with imposter feelings can be particularly challenging.

Feenstra et al. (2020) further argue that the individual’s specific—often protected—characteristics may play such a significant role in the development of impostor syndrome that overcoming it on an individual level may be nearly impossible. They emphasise the importance of organisational factors: if organisations actively challenge societal prejudices and stereotypes and cultivate inclusive cultures that reinforce individuals’ sense of belonging, members of disadvantaged groups may become more resilient to the onset and escalation of the syndrome.

Regarding its impact, Neureiter and Traut-Mat-tausch (2016) found that impostor syndrome functions as an internal barrier to career advancement. It is negatively associated with work-related outcomes and can consequently lead to lower earnings and diminished job satisfaction.

Researchers agree that *imposter syndrome* cannot be regarded as a mental illness or even as a stable personality trait. Rather, it is a phenomenon that manifests as an aversive emotional state and can affect many individuals in various situations, including private life (Kolligian & Sternberg, 1991; Leary et al., 2000).

The scientific study of impostor syndrome in Hungary is still lacking, although Felícia Szél’s (2021) book on the topic has undoubtedly contributed to raising public awareness. As it is not a clinical diagnosis but an emotional condition that may serve as a significant source of stress both privately and professionally, most of the Hungarian literature on the topic appears in non-academic forms—such as blogs or popular psychology websites—that explain it as an everyday psychological phenomenon. At the same time, impostor

syndrome has been addressed in a broader, primarily social-psychological context in some Hungarian academic works (Kovács, 2007; Lászlófi, 2020).

Although without scientific significance, it is worth noting that several well-known artists have publicly stated that they have experienced symptoms of impostor syndrome, including Tom Hanks, Michelle Pfeiffer, and Emma Watson.

## THE RESEARCH METHODOLOGY

The scale most commonly used to measure the *impostor phenomenon* was developed by Clance in 1985, known as the Clance Impostor Phenomenon Scale (CIPS) (Clance, 1985). This instrument assesses whether, and to what extent, the characteristics associated with fear of exposure are present in an individual.

Two other instruments have also been developed to identify impostor experiences: the Harvey Impostor Phenomenon Scale (HIPS) (Harvey, 1981) and the Perceived Fraudulence Scale (PFS) (Kolligian & Sternberg, 1991). Among the three, the CIPS and HIPS are considered the most accurate and reliable (Hoang, 2013; Chrisman et al., 2015). The CIPS measures three main dimensions of fear: fear of evaluation, fear of failure, and fear of not being as competent as others.

In our research, we conducted an online quantitative survey based on the Clance Impostor Phenomenon Scale (CIPS) in the spring of 2022. Data were collected from individuals randomly reached by the researchers; therefore, the sample is not representative. Although this sampling method does not allow for statistical representativeness, it ensures access to a demographically varied group of participants. The questionnaire also included general background questions about sex, age, and the highest level of education, allowing us to describe the diversity of the sample. This heterogeneity supports the exploratory aims of the study. Among the general data of the questionnaire, we asked about the gender, age and highest level of education of the respondents.

While retaining the 20 scale-based items of the original CIPS, we added seven additional items designed to capture more individualised aspects of the respondents’ experiences. Thus, a modified and expanded version of the classic CIPS was used to enable a more nuanced and differentiated assessment of the impostor phenomenon among participants.

Responses were recorded on a 10-point scale, which can be aggregated to a 5-point scale if necessary, ensuring comparability with previous studies that employed different measurement formats. The responses were evaluated according to the criteria presented in Table 1.

**TABLE 1** Classification of Imposter Phenomenon Scores

The imposter phenomenon scale	Classification of the evaluation
0-80	None to mild impostorism
81-120	Moderate impostorism
121-160	Significant impostorism
161-200	Intense impostorism

SOURCE: OWN CONSTRUCTION BASED ON CLANCE (1985)

**TABLE 2** Detailed test results in the age group 26-35

Test results	Female		Male		
	Secondary level of education	University degree	Elementary school	Secondary level of education	University degree
None to mild Impostorism	2	7			2
Moderate impostorism	2	8	1		4
Significant impostorism	1	7		1	
Intense impostorism	1	1			2

SOURCE: OWN CONSTRUCTION

**RESEARCH RESULTS**

Our research was based on a sample of 180 respondents, which allowed us to analyse the distribution of participants across different age groups. We chose to examine age because, in line with the findings of Kolligian and Sternberg (1991), we assumed that the prevalence or intensity of the phenomenon might decrease with age.

With one exception, the sample included nearly equal proportions of adults in each age group: 21.7% were aged 26–35, 18.9% were 36–45, 37.2% were 46–55, and 19.4% were over 55 years old. Participants under the age of 25 represented only 2.8% of the sample.

In addition to age, the questionnaire collected information on gender, level of education, whether respondents currently experience or have previously experienced imposter syndrome, whether it had resolved, and—if so—what impact it had on their work performance.

Overall, 70.2% of respondents were female and 27.8% were male. In terms of education, 84.4% held a tertiary degree, 15% a secondary qualification, and 0.6% a primary education. Detailed results are presented by age group in the following sections.

In the 26–35 age group, 39 respondents com-

pleted the questionnaire. Of these, 26% were male and 74% female. The majority (79%) held a university degree, 18% had completed secondary education, and only 3% had a primary-level education.

As shown in Table 2, within this age group—regardless of the level of impostorism—female respondents and those with higher educational attainment were predominant (74% and 79%, respectively). In terms of classification, the most common category was moderate impostorism (38%).

When asked whether they still experience symptoms of imposter syndrome, 37 respondents (94%) answered yes. Two respondents reported that they had previously experienced this syndrome during their careers—one during 5–18 years of work experience and the other after 25 years of work experience—but had not experienced it at the time of the survey.

An interesting finding in this age group concerns the direction of the impact of internal anxiety on work performance. For the majority of respondents (64%), anxiety related to potential “exposure” had an inspirational rather than detrimental effect on performance, while only 10% reported that it had a clearly negative impact.

Among respondents aged 36–45, 76% were female and 24% were male. In terms of education, 97%

**TABLE 3** Detailed test results in the age group 36-45

Test results	Female		Male	
	Secondary level of education	University degree	Secondary level of education	University degree
None to mild impostorism		16		5
Moderate impostorism		4		2
Significant impostorism	1	5		1

SOURCE: own construction

**TABLE 4** Detailed test results in the age group 46-55

Test results	Female		Male	
	Secondary level of education	University degree	Secondary level of education	University degree
None to mild impostorism	1	29	5	9
Moderate impostorism		10		
Significant impostorism	4	4	1	1

SOURCE: own construction

held a university degree, while 3% had completed secondary education. Table 3 shows a distribution of impostorism levels similar to that of the previous age group, with a slight predominance of moderate impostorism (62%).

A total of 34 respondents belonged to this age group, of whom 30 reported that they still experience imposter syndrome. Four respondents indicated that the condition had subsided, typically after 9–10 years of work experience and upon reaching the age of 25–30.

Perceived internal anxiety had a similar effect on work performance as in the previous age group: for the majority of respondents (55%), it acted as a motivating rather than hindering factor, while 11% experienced imposter syndrome as a distinctly aggravating influence on performance.

In the 46–55 age group, there were 67 respondents. Of these, 72% were female and 28% were male. In terms of education, 84% held a university degree and 16% had completed secondary education.

As shown in Table 4, imposter syndrome remained prevalent among respondents with higher education, typically to a slight or moderate extent. However, the proportion of respondents classified as experiencing significant impostorism increased compared with the

younger age groups.

When asked whether they still experience imposter syndrome, 53 respondents answered yes, while 12 indicated that they had experienced the condition only at an earlier stage of their lives. Most of these respondents reported changes occurring around the ages of 35, 40, 45, 48, and 49, corresponding to approximately 10, 15, 20, and 25 years of professional experience.

Notably, 71% of respondents—the highest proportion across all age groups—stated that this internal anxiety served as a stimulus for their work performance, while 10.5% viewed it as a hindrance.

Among respondents aged 55 and above, 31% were male and 69% were female. In terms of education, 86% had completed university studies and 14% had completed secondary education. Similar to the pattern observed in Table 4, imposter syndrome appeared only to a mild extent, most frequently among women with university education.

According to the questionnaire, 27 respondents reported that they were currently experiencing imposter syndrome, while six stated that they were not. Among this group, the ages most frequently mentioned as the point at which the condition had ceased were 30, 40, 55, 59, and 60.

**TABLE 5** Detailed test results in the age group 55 above

Test results	Female		Male	
	University degree	Secondary level of education	University degree	Secondary level of education
None to mild impostorism	3	14	2	6
Moderate impostorism		4		3
Significant impostorism		3		

SOURCE: OWN CONSTRUCTION

162 In this age group, 65% of respondents indicated that imposter-related anxiety motivated their work performance, while only one respondent felt that it hindered it. Presumably due to their greater professional experience and routine, this age group also showed the highest proportion of individuals whose performance was not fundamentally affected by the phenomenon.

**RESULTS OF STATISTICAL SURVEY**

**Testing relationships between variables**

We used IBM SPSS software to perform the statistical analyses. After the descriptive statistics, tests of association were conducted to determine whether significant relationships could be detected between age group, level of education, and the strength of impostorism.

First, the normality of the data distribution across age groups was examined at the 5% significance level. According to the Shapiro–Wilk test ( $W(180) = .884, p = .000$ ), all variables had  $p < 0.05$ , indicating that the residuals could not be considered normally distributed. A similar result was obtained for education: the Shapiro–Wilk test ( $W(180) = .462, p = .000$ ) also showed  $p < 0.05$  for all variables tested, confirming that these variables were not normally distributed either.

However, this deviation from normality is not problematic given the large sample size, as the Central Limit Theorem supports the robustness of the analysis under such conditions.

In accordance with standard practices in behavioral and social science research, statistical significance in this study is determined using two thresholds. Results with a p-value of less than 0.05 are deemed statistically significant. Meanwhile, findings with a p-value between 0.05 and 0.10 are considered marginally significant.

**1. Relationship between age group and impostorism**

To investigate  $H_2$  the hypothesis that feelings of impostorism decrease with increased work experience, we analyzed whether the intensity of impostorism varies significantly across different age groups. We compared the four levels of impostorism within each age category to identify any patterns related to age.

For respondents aged 26 to 35, the Levene test showed that the variances for mild and moderate impostorism are equal ( $F = 1.393, p = .241$ ). The t-test results indicate a statistically significant difference between mild and moderate impostorism within this age group ( $t(180) = -3.836, p < .05$ ). The mean values suggest that individuals in the 26 to 35 age group tend to experience moderate impostorism more frequently ( $M = 1.00$ ) compared to mild impostorism ( $M = 0.12$ ).

In the same age group, the Levene’s test indicated equal variances when comparing significant and strong impostorism ( $F = 0.270, p = .605$ ). The t-test results showed no significant difference between significant and strong impostorism ( $t(180) = 0.257, p = .798$ ); therefore, we accept the null hypothesis ( $H_0$ ). The mean values suggest that this age group is slightly more prone to significant impostorism ( $M = 0.34$ ) compared to strong impostorism ( $M = 0.31$ ).

In the 36–45 age group, the Levene test showed that the variances were equal for both mild versus moderate impostorism ( $F = 3.707, p = .057$ ) and significant versus strong impostorism ( $F = 0.407, p = .525$ ). For the comparison of mild versus moderate impostorism, the t-test result ( $t(180) = 0.713, p = .477$ ) did not reveal a significant difference, leading to the acceptance of the null hypothesis ( $H_0$ ). Similarly, for significant versus strong impostorism, the t-test result ( $t(180) = -0.321, p = .749$ ) was not substantial, and  $H_0$  was also accepted. Based on the mean scores, the 36–45 age group is characterized by mild impostorism ( $M = 0.21$ ), strong impostorism ( $M = 0.19$ ), and significant impostorism ( $M = 0.16$ ), while moderate impostorism is not typical for this group.

In the 46–55 age group, the assumption of ho-

mogeneity of variances was not upheld when comparing mild and moderate impostorism, as indicated by Levene's test ( $F = 102.16, p < .05$ ). Therefore, Welch's t-test was employed for analysis. The results of the Welch test revealed a statistically significant difference between mild and moderate impostorism, with  $t(180) = 8.753$  and  $p < .05$ . This suggests that individuals in the 46–55 age group are more likely to experience mild impostorism ( $M = 0.43$ ) than moderate impostorism ( $M = 0.00$ ).

Furthermore, when comparing significant and strong impostorism within the same age group, Levene's test indicated that the assumption of homogeneity of variances was satisfied ( $F = 0.098, p = .755$ ). The t-test results showed no statistically significant difference between significant and strong impostorism, with  $t(180) = -0.158$  and  $p = .875$ , leading to the acceptance of the null hypothesis ( $H_0$ ). In terms of mean scores, this age group is most affected by strong impostorism ( $M = 0.31$ ), while significant impostorism ( $M = 0.30$ ) is only slightly less prevalent.

For the 55+ age group and mild versus moderate impostorism, the assumption of homogeneity of variances was violated ( $F = 5.037, p < .05$ ), and therefore, Welch's t-test was applied. The Welch test result indicates a statistically significant difference between mild and moderate impostorism ( $t(180) = 5.575, p < .05$ ). Consistent with the mean values, respondents aged 55 and above are predominantly characterised by mild impostorism ( $M = 0.24$ ), while moderate impostorism is virtually absent.

For the comparison between significant and strong impostorism within the 55+ age group, homogeneity of variances was again violated ( $F = 5.021, p < .05$ ), so Welch's t-test was used. The result ( $t(180) = 1.118, p = .267$ ) shows no statistically significant difference between significant and strong impostorism, and therefore  $H_0$  is accepted. Based on the mean scores, this age group exhibits higher levels of strong impostorism ( $M = 1.00$ ), with notable but lower levels of significant impostorism ( $M = 0.85$ ).

## **2. Results of the tests on the relationship between education and impostorism:**

To address hypothesis  $H_1$ , which suggests that impostorism is more common among individuals with tertiary education, we investigated whether the intensity of impostorism varies based on educational attainment. To explore this, we compared levels of impostorism between respondents with secondary education and those with tertiary education across four categories of impostorism.

*Secondary education and mild to moderate impostorism*

The assumption of homogeneity of variances was

confirmed (Levene's test:  $F = 1.975, p = .163$ ). The results of the t-test indicate that there is no statistically significant difference in impostorism levels between individuals experiencing mild and moderate impostorism among those with secondary education ( $t(102) = -0.582, p = .562$ ). However, the mean values suggest that respondents with secondary education display slightly higher moderate impostorism ( $M = 1.00, SD = 0.000$ ) compared to mild impostorism ( $M = 0.85, SD = 0.356$ ).

*Secondary education and significant to strong impostorism*

Levene's test indicated that the variances were not equal ( $F = 41.139, p < .001$ ), so we applied Welch's t-test. The results of the Welch test revealed a statistically significant difference at the 5% level between significant and strong impostorism among individuals with secondary education ( $t(74) = 2.909, p = .004$ ). The mean values suggest that respondents with secondary education predominantly experience significant impostorism ( $M = 0.93, SD = 0.255$ ), although strong impostorism ( $M = 0.63, SD = 0.471$ ) is also present.

*University education and mild to moderate impostorism*

Levene's test indicated that the variances are homogeneous ( $F = 1.975, p = .163$ ). However, the t-test did not reveal a statistically significant difference between mild and moderate impostorism among respondents with tertiary education ( $t(102) = 0.582, p = .562$ ). Based on the means, individuals with tertiary education are primarily characterized by mild impostorism, while moderate impostorism is nearly non-existent. Mild impostorism was notably more prevalent among individuals with tertiary education ( $M = 1.15, SD = 0.356$ ), while moderate impostorism was nearly non-existent in this group ( $M = 0.00, SD = 0.000$ ).

*University education and significant to strong impostorism*

Levene's test indicated unequal variances ( $F = 63.353, p < .001$ ); therefore, Welch's t-test was used. The results of the Welch test reveal a statistically significant difference between significant and strong impostorism among individuals with tertiary education ( $t(74) = -3.336, p < .001$ ). The mean values suggest that respondents with tertiary education are more frequently characterized by strong impostorism ( $M = 0.31, SD = 0.471$ ), while significant impostorism occurs less often ( $M = 0.05, SD = 0.211$ ).

## **Multinomial regression model**

### **Method of analysis**

A multinomial logistic regression was conducted to estimate the probability that respondents fall into

**TABLE 6** Explanatory variables used in multinomial logistic regression

Explanatory variable	Content of the question asked	Answer options
Gender		1 = Male 2 = Female
Age		1= under 25 years 2 = between 26-35 years 3 = between 36-45 years 4 = 46-55 years 5 = Over 55 years
Education		1 = Basic degree 2 = Intermediate 3 = Advanced

SOURCE: own construction

164

one of four categories of impostorism: mild, moderate, significant, or strong. All analyses were performed at a 5% significance level.

The total sample size is  $N = 180$ , which meets the recommended minimum of ten observations per estimated parameter for multinomial models. However, the distribution of respondents across the outcome categories is uneven, with only two respondents in the “moderate impostorism” category. While the overall sample size is adequate, the sparsity of data in this category limits the stability and interpretability of the parameter estimates. As a result, coefficients for this level should be interpreted with caution.

Consistent with the assumptions of multinomial logistic regression, the model does not require normally distributed residuals or homogeneity of variances; however, it does assume independence of observations and the absence of multicollinearity among predictors.

Appendix 2 presents diagnostic residual plots (including a histogram and P–P plot), which reveal notable deviations from normality. These deviations do not violate the model assumptions but are reported for transparency in diagnostic reporting.

The independent variables included in the model are summarized in Table 6. In multinomial logistic regression, which involves a dependent variable consisting of four categories, the model estimates three logit equations. Each equation compares one outcome category to a chosen reference group. These comparisons allow us to analyze how changes in the explanatory variables influence the likelihood of belonging to each impostorism category.

In multinomial logistic regression, the dependent variable has four outcome categories. The analysis estimates a single model that consists of three logit equations, each comparing one outcome category to a designated reference category. This structure allows the model to assess how changes in the independent variables affect the probability of membership in each impostorism category relative to the reference group. For clarity, the reference category in our analysis is the “strong impostorism” group, against which all other categories are compared.

One of our primary research objectives is to evaluate the hypothesis ( $H_3$ ) that impostorism negatively impacts individual career development. To assess whether the intensity of impostorism is associated with factors that influence career progression, we use a multinomial logistic regression framework. We will examine this hypothesis in the following section, where we will present the empirical results of the regression model.

**Empirical results**

The number of respondents and the percentage distribution for each value of the dependent variable are presented in Table 7 below.

The test of model fit includes a likelihood ratio  $\chi^2$  test that compares the full model, which includes all explanatory variables, to a null model containing no predictors. The result of this test ( $\chi^2(21) = 45.425, p = .002$ ) indicates that the full model provides a statistically significant improvement in fit over the null model, meaning that the independent variables meaningfully contribute to explaining impostorism group member-

**TABLE 7** Sample distribution of the dependent variable in the multinomial regression model

		Item number (N)	Marginal Percentage
Impostorism	None to mild impostorism	102	56.7%
	Moderate impostorism	2	1.1%
	Significant impostorism	44	24.4%
	Intense impostorism	32	17.8%
	Total	180	100.0%

SOURCE: own construction

**TABLE 8** Sample distribution of the dependent variable in the multinomial regression model

		Item number (N)	Marginal Percentage
Impostorism	None to mild impostorism	102	56.7%
	Moderate impostorism	2	1.1%
	Significant impostorism	44	24.4%
	Intense impostorism	32	17.8%
	Total	180	100.0%

SOURCE: own construction based on database

ship. Detailed results of this comparison are provided in Appendix Table 1 (Model Fitting Information).

To further evaluate model adequacy, we report three commonly used pseudo  $R^2$  indicators: Cox and Snell  $R^2 = .223$ , Nagelkerke  $R^2 = .256$ , and McFadden  $R^2 = .123$ . These values, which are summarized in Appendix Table 2 (Pseudo R-Square Statistics), provide a measure of how much variance in the outcome variable is explained by the model.

Although pseudo  $R^2$  values are not directly comparable to those used in linear regression, values in this range—particularly McFadden’s  $R^2$ —are generally regarded as indicating acceptable model performance in behavioral research contexts. In more accessible terms, these indicators confirm that the model we developed predicts the categorization of individuals into different impostorism levels significantly better than random chance. As shown in Appendix Table 3, the reported pseudo  $R^2$  values demonstrate that the model is capable of identifying meaningful relationships between impostorism and explanatory variables such as age, gender, and education. While the model fit is not perfect, it aligns with accepted standards in psychological and social science research. For all multinomial comparisons, the “strong impostorism” category served as the reference category.

Furthermore, the results include likelihood ratio

tests for the overall contribution of each independent variable to the model (Table 8), helping us identify which predictors have the strongest effect on the probability of belonging to a particular impostorism category

Using the conventional  $\alpha = .05$  threshold, the dummy variable representing women was found to be a statistically significant predictor at the 5% significance level.

The predictive values from the multinomial logistic regression model are shown in Table 7. The coefficients indicate how the explanatory variables affect the odds of belonging to a particular impostorism category compared to the reference group.

This part of the output also shows how well the model performs in predicting impostorism category membership. The classification accuracy of the categories is reflected in the row percentages, which represent the proportion of correctly classified cases within each impostorism category.

The model correctly predicted 87.3% of individuals in the mild impostorism category ( $89 / (89 + 0 + 9 + 4) \times 100$ ). In addition, 29.5% of individuals in the significant impostorism group and 12.5% of those in the strong impostorism group were correctly classified.

Overall, the model performed well in predicting cases of mild impostorism; however, when considered

**TABLE 9** Forecast test

	Mild impostorism	Moderate impostorism	Significatn impostorism	Strong impostorism	%
None to mild impostorism	89	0	9	4	87,3
Moderate impostorism	0	0	2	0	0,0
Significant impostorism	28	0	13	3	29,5
Intense impostorism	20	0	8	4	12,5
%	76,1	0,0	17,8	6,1	58,9

SOURCE: own construction based on database

**TABLE 10** Parameter estimation, first category

	Mild impostorism			
	B	Std.Error	Sig	Exp(B)
Intercept	-.013	1.207	.991	
Female_Dummy	-.695	.556	.212	.499
Comparative_Dummy	-.146	.542	.788	.864
Superlative_Dummy	-1.001	.000	1.000	.367
Age_26-35_dummy	1.173	1.266	.354	3.230
Age_36-45_dummy	2.014	1.297	.121	7.493
Age_46-55_dummy	2.350	1.237	.058	10.486
Age_Above55_dummy	2.942	1.337	.028	18.949

SOURCE: own construction based on database

as a whole, it showed relatively low accuracy across all four categories, with an overall classification rate of 58.9%.

The regression coefficients presented in Table 8 identify which independent variables significantly predict the likelihood of belonging to the mild, moderate, or significant impostorism categories. The first set of coefficients pertains to mild impostorism.

The age category variable was treated as categorical, with each category represented by a dummy variable comparing older groups to the youngest reference group (under 25 years). All four age-related coefficients were positive, with only the last two reaching statistical significance.

Specifically, the variable Age\_46-55\_dummy (b = 2.350, SE = 1.237, p < .1) was significant at the 10% level, while Age\_55+\_dummy (b = 2.942, SE = 1.337, p < .05) was significant at the 5% level. These results suggest that respondents aged 46-55 and 55+ are more likely to fall within the mild impostorism category and less likely to belong to the moderate or significant groups than those aged under 25.

The odds ratios (Exp(B)) show that, compared to respondents under the age of 25 (who serve as the reference group), individuals aged 46-55 and those aged 55 and older have significantly higher odds of being classified in the mild impostorism category. Specifically, the likelihood of being categorized as experiencing mild impostorism is approximately 10.5 times greater for respondents aged 46-55 and 18.9 times greater for those aged 55 and older, in comparison to the under-25 group.

Given the small number of respondents under 25 (n = 5), further detailed analysis is limited. However, four of these individuals experienced moderate or significant impostorism, which may reflect employers' increasingly high expectations of young workers early in their careers (Tóthné & Kelemen-Erdős, 2020).

For the second category, moderate impostorism, none of the variables were significant.

Compared to the first model, the predictor variable "education" shows that the variable "secondary level" (b = 14.52, s.e. = .858, p = .000) is positive and statistically significant. The corresponding odds ratio

**TABLE 11** Parameter estimation, second category

	Moderate impostorism			
	B	Std.Error	Sig	Exp(B)
Intercept	-8.430	32822.099	1.000	
Female_Dummy	-13.962	280.745	.960	8.640
Comparative_Dummy	3.763	32375.801	1.000	43.057
Superlative_Dummy	-9.248	32382.392	1.000	9.633
Age_26-35_dummy	5.657	534.223	.999	286.334
Age_36-45_dummy	-7.906	5427.005	.999	.000
Age_46-55_dummy	-7.436	5411.402	.999	.001
Age_Above55_dummy	-7.210	5429.689	.999	.001

SOURCE: own construction based on database

**TABLE 12** Parameter estimation, third category

	Significatn impostorism			
	B	Std.Error	Sig	Exp(B)
Intercept	17.139	3926.142	.997	
Female_Dummy	-.852	.622	.170	.426
Comparative_Dummy	14.520	.858	.000	6.689
Superlative_Dummy	-18.887	3926.142	.997	6.275
Age_26-35_dummy	.844	1.323	.524	2.326
Age_36-45_dummy	.273	1.386	.844	1.315
Age_46-55_dummy	.612	1.322	.643	1.844
Age_Above55_dummy	1.304	1.429	.362	3.683

SOURCE: own construction based on database

(Exp(B)) is greater than 1, indicating that individuals with higher educational attainment are more likely to experience significant or strong impostorism than those with lower levels of education.

These findings are consistent with earlier research by Clance & Imes (1978) and Vergauwe (2015), who also reported that impostorism tends to be more pronounced among highly qualified and professionally experienced individuals. Possible explanations include internal anxiety linked to pressure to conform, low self-esteem despite success, perfectionism, fear of being “found out,” and heightened perceived prestige loss.

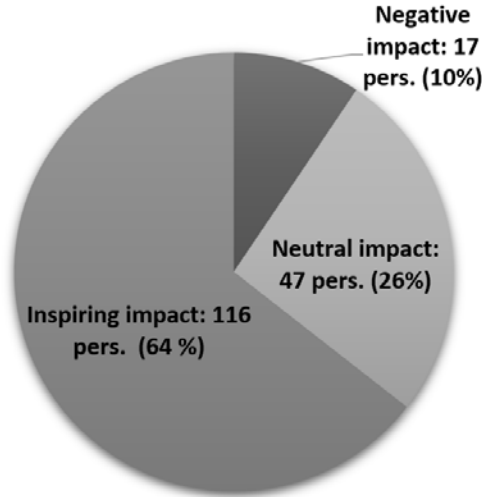
## DISCUSSION

Our aggregated results show that impostor syndrome is still present in 86.4% of the research participants (69% women, 31% men, most of them holding a university degree), while only 13.6% felt that it had disappeared with age or increasing professional experience.

At the beginning of our research, we formulated three hypotheses, the acceptance or rejection of which indicate specific trends in the prevalence of impostor syndrome in Hungary:

H<sub>1</sub> was accepted. Women with tertiary education demonstrated a higher likelihood of belonging to the more severe impostorism categories, indicating that this demographic group is disproportionately affected by impostor-related experiences.

H<sub>2</sub> was also accepted. Using age as a proxy for



**FIGURE 1** The effect of impostor syndrome on work performance  
 SOURCE: own construction based on research results

work experience, the analysis showed that older respondents were significantly more likely to fall into the mild impostorism category. In contrast, younger individuals were more often found in the moderate or severe categories. These findings support the assumption that impostorism tends to decrease with the accumulation of professional experience.

H<sub>3</sub> was accepted as well. Higher levels of impostorism were linked to declines in perceived work performance and lower career confidence, demonstrating that impostorism negatively impacts individual career development (Figure 1).

Overall, nearly two-thirds of participants (n = 116) reported that impostor syndrome had a positive effect on their work performance, 47 felt no particular effect, and 17 reported a negative effect. Consequently, the third hypothesis is not supported. According to Gresham-Dolby (2022), mentors in workplace mentoring programs are well positioned to have a positive impact on their mentees' imposter syndrome. Recognizing imposter syndrome and providing the necessary resources promotes mentees' professional development and sense of security, thereby advancing their career development.

Among those who indicated that the internal stress associated with the syndrome had lessened or disappeared over time, most said this typically occurred before the age of 40. Responses to this open-ended question included statements such as:

"I am a perfectionist, so it persists to some extent even now."

"A positive attitude toward life and the positive

feedback I received later helped eliminate this feeling."

"Life and work experience mitigate it."

"Success lies in education and knowledge."

"Experience abroad and developing foreign language skills made me more self-confident."

"Self-awareness helps."

Several respondents also suggested that impostorism and its resolution are not necessarily linked to age or work experience but rather represent a *psychological pattern* rooted in childhood experiences, which can only be overcome with external support or therapy.

**CONCLUSION**

The results of this pilot study provide valuable preliminary insights; however, the limited sample size constrains the extent to which robust, generalizable conclusions can be drawn. Given the novelty of the research topic, our foundational investigation focused on the Hungarian labour market, allowing for an initial, localized exploration of the phenomenon. Nonetheless, a key objective for future work is to extend this research through international comparative studies, with the aim of identifying cross-cultural and structural variations in the manifestation of impostor syndrome and enhancing the external validity of our findings.

Further in-depth research based on a larger and more diverse sample is essential to examine the phenomenon across sectoral, geographic, and occupation-

al dimensions. Particular attention should be paid to how impostor syndrome manifests among young, early-career employees, who may be especially vulnerable to distortions in self-assessment and perceived competence. Another promising direction for future research involves identifying employer-side tools and strategies that could prevent or mitigate the development of internalized anxiety among employees.

The present survey does not address how the effects of impostor syndrome on individual performance may vary depending on contextual factors such as industry, leadership role, work mode (in-person, remote, or hybrid), the competitiveness of organizational culture, the measurability of work outcomes, and organizational attitudes toward success and failure. These

factors are clearly relevant and warrant dedicated examination in subsequent studies. Consistent with the findings of Kolligiani and Sternberg (1991), who reported that impostorism is most prevalent among individuals at the beginning of their careers, further domestic investigation of this age-related pattern would be of considerable value.

It would also be useful to assess whether the self-reported performance-enhancing effect of impostor syndrome corresponds to objectively measured performance appraisals by employers. A deeper understanding of this discrepancy is important, as untreated impostor syndrome can impose a major emotional burden on individuals and may lead to burnout or depression in the long term.

## REFERENCES

170

1. Austin C. C., Clark E. M., Ross M. J., Taylor M. J. (2009). Impostorism as a mediator between survivor guilt and depression in a sample of African American college students. *College Stud. J.* 43 1094–1109.) [https://scholar.google.com/scholar\\_lookup?journal=College+Stud.+J.&title=Impostorism+as+a+mediator+between+survivor+guilt+and+depression+in+a+sample+of+African+American+college+students.&author=C.+C.+Austin&author=E.+M.+Clark&author=M.+J.+Ross&author=M.+J.+Taylor&volume=43&publication\\_year=2009&pages=1094-1109&](https://scholar.google.com/scholar_lookup?journal=College+Stud.+J.&title=Impostorism+as+a+mediator+between+survivor+guilt+and+depression+in+a+sample+of+African+American+college+students.&author=C.+C.+Austin&author=E.+M.+Clark&author=M.+J.+Ross&author=M.+J.+Taylor&volume=43&publication_year=2009&pages=1094-1109&) last downloaded: 2022.04.28
2. Bernard D. L., Hoggard L. S., Neblett E. W., Jr. (2018). Racial discrimination, racial identity, and impostor phenomenon: a profile approach. *Cultur. Divers. Ethnic Minor. Psychol.* 24 51–61. <https://pubmed.ncbi.nlm.nih.gov/28414495/> last downloaded: 2022.04.29
3. Chrisman, S., Pieper, W., Clance, P. R., Holland, C., & Glickauf-Hughes, C. (1995). Validation of the Clance Impostor Phenomenon Scale. *Journal of Personality Assessment*, 65(3), 456-467.
4. Clance, P. R., & Imes, S. (1978). The imposter phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychotherapy: Theory, Research and Practice*, 15(3), 241–247. <https://doi.org/10.1037/h0086606>
5. Cozzarelli, C., & Major B. (1990). Exploring the validity of the imposter phenomenon. *Journal of Social and Clinical Psychology*, 9, 401-417. Exploring the validity of the impostor phenomenon. - PscNET (apa.org)
6. Gresham-Dolby, C. (2022). Imposter syndrome: an opportunity to positively influence mentees. *Currents in Pharmacy Teaching and Learning*, 14(2), 130-132.
7. Harvey, J. C., & Katz, C. (1985). If I'm so successful, why do I feel like a fake? The impostor phenomenon. St. Martin's Press. <https://www.semanticscholar.org/paper/If-I%27m-So-Successful-Why-Do-I-Feel-Like-a-Fake%3A-The-Harvey/a831014c8ebo85a9c4d715b6b139127d2501ef7a> last downloaded: 2022.04.28
8. Harvey, J. C., (1981). The imposter phenomenon an achievement: A failure to internalize success (Doctoral dissertation, Temple University). THE IMPOSTOR PHENOMENON AND ACHIEVEMENT: A FAILURE TO INTERNALIZE SUCCESS - ProQuest
9. Hoang, Q. (2013). The Impostor Phenomenon: Overcoming Internalized Barriers and Recognizing Achievements. *The Vermont Connection*, 34(1). <https://scholarworks.uvm.edu/tvc/vol34/iss1/6> last downloaded: 2022.04.28
10. Kolligian, Jr., J., Sternberg, R. J. (1991). Perceived fraudulence in young adults: Is there an "imposter syndrome"? *Journal of Personality Assessment*, 56(2), 308-326 Sci-Hub | Vért család a fiatal felnőtteknél: létezik-e "imposztor szindróma"? *Journal of Personality Assessment*, 56(2), 308–326 | 10.1207/s15327752jpa5602\_10
11. Kovács M. (2007). Nemi sztereotípiák, nemi ideológiák és karrier-aspirációk. *Educatio* (1) 99-114. <https://epa.oszk.hu/01500/01551/00039/pdf/> last downloaded: 2022.09.16
12. Lászlófi V. (2020). A rendszerváltás szociális reprezentációi a demokráciába vetett hit és a nemzettel való azonosulás tükrében. <https://dea.lib.unideb.hu/dea/handle/2437/286640> last downloaded: 2022.06.16
13. Leary, M.R., Patton, K.M., Orlando, A. E., & Funk, W. (2000). The imposter phenomenon: Self-perceptions, reflected appraisals, and interpersonal strategies. *Journal of Personality*, 68(4), 725- 756. The Impostor Phenomenon: Self-Perceptions, Reflected Appraisals, and Interpersonal Strategies (xuebalib.com)
14. Neureiter, M., & Traut-Mattausch, E. (2016). An inner barrier to career development: Preconditions of the impostor phenomenon and consequences for career development. *Frontiers in Psychology*, 7, Article 48. <https://psycnet.apa.org/record/2016-10257-001>
15. Sanne Feenstra, Christopher T. Begeny, Michelle K. Ryan, Floor A. Rink, Janka I. Stoker, and Jennifer Jordan (2020). Contextualizing the Impostor "Syndrome" (Published online 2020 Nov 13) doi: 10.3389/fpsyg.2020.575024 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7703426/> last downloaded: 2022.04.25
16. Selye J. (1976). Stressz distressz nélkül. Akadémiai Kiadó.
17. Szél F. (2021). Akik a sikertől szoronganak. Magánkiadás. ISBN: 9786150125480
18. Tóthné Téglás, T. és Kelemen-Erdős, A. (2020). Pályakezdeőkkel szembeni kompetenciaelvárások és mérésük, *Marketing és Menedzsment*, 54(1), o. 43–54. doi: 10.15170/MM.2020.54.01.04.
19. Vergauwe J., Wille B., Feys M., Fruyt F.& Anseel F. (2015). Fear of Being Exposed: The Trait-Relatedness of the Impostor Phenomenon and its Relevance in the Work Context *Journal of Business and Psychology* volume 30, pages565–581(2015) <https://link.springer.com/article/10.1007/s10869-014-9382-5> last downloaded: 2022.04.26
20. Young, V. (2011). The secret thoughts of successful women: Why capable people suffer from the impostor syndrome and how to thrive in spite of

it. Crown Business. <https://www.pdfdrive.com/the-secret-thoughts-of-successful-women-why-capable-people-suffer-from-the-impostor-syndrome-and-how-to-thrive-in-spite-of-it-d167791296.html> last downloaded: 2022.10.24

**APPENDIX 1**

**TABLE 1** Model Fitting Information

Model	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC	BIC	-2 Log Likelihood	Chi-Square	df	Sig
Intercept Only	131,935	141,514	125,935			
Final	128,510	205,141	80,510	45,425	21	,002

SOURCE: own editing

**TABLE 2** Goodness of Fit

	Chi-Square	df	Sig
Pearson	28,433	33	,694
Deviance	29,595	33	,637

SOURCE: own editing

**TABLE 3** Pseudo R-Square

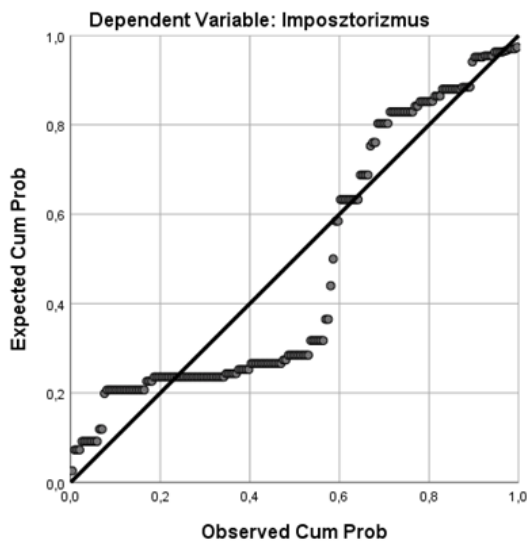
Cox and Snell	,223
Nagelkerke	,256
McFadden	,123

SOURCE: own editing

172

**APPENDIX 2**

**Normal P-P Plot of Regression Standardized Residual**



**FIGURE 1** PNormal P-P Plot of Regression Standardized Residual Dependet Variable

SOURCE: Based on IBM SPSS

## SRETNI VARALICE: RAZUMIJEVANJE UČINAKA SINDROMA VARALICE NA MAĐARSKO PROFESIONALNO OKRUŽENJE

### SAŽETAK

U psihologiji, sindrom varalice odnosi se na kognitivno iskrivljenje koje sprječava pojedince da dožive istinski osjećaj postignuća u odnosu na svoj radni učinak. Stanje su prvi put identificirale psihologinje Pauline Rose Clance i Suzanne Imes 1978. godine, koje su isprva vjerovala da je to fenomen koji prvenstveno pogađa žene. Međutim, naknadna istraživanja pokazala su da sindrom varalice pogađa otprilike 70% zaposlenika u nekom trenutku njihove karijere.

Ova studija ispituje prevalenciju fenomena među ispitanim radnicima, identificira tko je najviše pogođen i istražuje njegov utjecaj na individualni učinak i razvoj karijere. Drugi važan cilj je utvrditi u kojoj mjeri sindrom ometa ili, obrnuto, motivira individualni učinak.

Istraživanje se temeljilo na anketnom istraživanju provedenom u proljeće 2022. među mađarskim zaposlenicima. Istraživanje je procijenilo prevalenciju sindroma varalice prema spolu, dobi i razini obrazovanja. Ispitanici su također pitani o dobi u kojoj se fenomen prvi put pojavio, broju godina radnog iskustva od njegovog početka i njegovom percipiranom utjecaju na njihovu radnu uspješnost. Podaci su analizirani korištenjem unakrsne tablice i statističkog testiranja.

Rezultati pokazuju da sindrom varalice ostaje prisutan kod 86,4% ispitanika, dok je samo 13,6% izjavilo da se smanjio s godinama i radnim iskustvom. Fenomen je prvenstveno pogađao žene sa sveučilišnom diplomom, za koje je predstavljao uporan i trajan osjećaj unutarnje tjeskobe. Intenzitet sindroma varalice obično se smanjuje s godinama i iskustvom, pokazujući blagi do umjereni učinak tijekom vremena. Sveukupno, nalazi sugeriraju da sindrom može imati blago pozitivan učinak na radnu uspješnost, jer njegov inhibirajući utjecaj obično slabi s porastom dobi.

Nalazi ove studije pružaju vrijedne uvide u manifestaciju sindroma varalice na mađarskom tržištu rada i njegove implikacije na radnu uspješnost. Štoviše, oni postavljaju temelj za buduće međunarodne komparativne studije, omogućujući analize u različitim kulturnim i ekonomskim kontekstima. Buduća istraživanja mogla bi proširiti veličinu uzorka, istražiti sektorske i regionalne specifičnosti, razlikovati menadžerske i nemanadžerske uloge te ispitati karakteristike sindroma varalice među mlađim radnicima (mlađima od 25 godina) koji su na početku svoje karijere.

**KLJUČNE RIJEČI:** *sindrom varalice, unutarnja anksioznost, radna uspješnost, iskustvo uspjeha*

