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*The Impostor Phenomenon in General Practice Residents in Central Portugal*

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***THE IMPOSTOR PHENOMENON IN GENERAL PRACTICE RESIDENTS IN CENTRAL PORTUGAL***

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## LIST OF ABBREVIATIONS AND ACRONYMS:

<b>Abbreviation</b>	<b>Explanation</b>
<b>CIPS</b>	Clance Impostor Phenomenon Scale
<b>FI</b>	Fenómeno do Impostor
<b>GAD-2</b>	Generalized Anxiety Disorder-2
<b>IP</b>	Impostor Phenomenon
<b>MGF</b>	Medicina Geral e Familiar
<b>PCA</b>	Principal components analysis
<b>PHQ-2</b>	Patient Health Questionnaire-2
<b>PHQ-4</b>	Patient Health Questionnaire for Depression and Anxiety
<b>SPSS</b>	Statistical Package for the Social Sciences

## **ABSTRACT:**

**Background:** The Imposter Phenomenon (IP) characterizes individuals who are unable to recognize their success, attributing it to luck or assuming it was a mistake. These individuals are prone to develop mental health problems such as distress, anxiety, and depression. IP is most often associated with individuals with high academic and professional success, such as medical students and health professionals.

**Aim:** To determine the prevalence of IP among General Practice/Family Medicine residents in central Portugal, from the 1st to the 4th year of residency, in 2022, according to gender and year of residency. The relationship between IP, distress, anxiety, depression, and satisfaction with the mean of the residency were also studied.

**Methods:** In a cross-sectional observational study, a questionnaire was applied through Google forms with the CIPS and PHQ-4 scales and context questions: gender, year of residency, satisfaction with the mean of residency and last digits of the phone number. The link to answer was sent by the Direction of the Central Region of Portugal to personal emails. The response was only possible if the informed consent box was checked. Descriptive and inferential statistics were performed with the data obtained.

**Results:** In a convenience sample 62 (69.7%) of 89 participants, due to non-compliance with inclusion criteria, 12.9% experienced few, 22.6% moderate, 43.5% frequent and 21% intense feelings of imposter, with the levels significantly higher in women,  $p=0.036$ . Spearman's correlation was very weak and not significant,  $\rho=0.085$ ,  $p=0.511$ .

**Discussion:** There is a need to recognize and manage IP, by methods at the individual and institutional level. More studies should be conducted on the prevalence of IP in doctors and on how to manage this feeling of impostor.

**Conclusion:** IP with a score of moderate or higher was detected in 87.1% of the residents. Women were more affected. A correlation was found between the IP and the satisfaction with the mean of residency. No correlations were found between IP, distress, year of residency.

**Keywords:** Impostor Phenomenon; CIPS, General practice residents; PHQ-4.

## **RESUMO:**

**Introdução:** O Fenómeno do Impostor (FI) caracteriza indivíduos incapazes de reconhecer o seu sucesso, atribuindo-o à sorte ou assumindo que foi um erro. Estes indivíduos são propensos a desenvolver problemas de saúde mental, como distress, ansiedade e depressão. O FI é mais frequentemente associado a indivíduos com elevado sucesso académico e profissional, tais como estudantes de medicina e profissionais de saúde.

**Objetivos:** Determinar a prevalência do FI nos internos de Medicina Geral e Familiar (MGF), no centro de Portugal, do 1º ao 4º ano de internato, em 2022, em função do género e ano de internato. A relação entre o FI, distress, ansiedade, depressão e satisfação com a média do internato também foram estudadas.

**Métodos:** Num estudo de observação transversal foi aplicado um questionário através de formulários Google com as escalas CIPS e PHQ-4 e as perguntas de contexto: género, ano de internato, satisfação com a média do internato e os últimos dígitos do número de telefone. O link para responder foi enviado pela Direção da Região Centro de Portugal para os e-mails pessoais. A resposta só era possível se a caixa de consentimento informado fosse assinalada. Foram realizadas estatísticas descritivas e inferenciais com os dados obtidos.

**Resultados:** Numa amostra de conveniência 62 (69,7%) de 89 participantes, por não cumprimento de critérios de inclusão, 12,9% experimentavam poucos, 22,6% moderados, 43,5% frequentes e 21% intensos sentimentos de impostor, com os níveis significativamente mais elevados na mulher,  $p=0.036$ . A correlação de Spearman foi muito fraca e não significativa,  $\rho=0.085$ ,  $p=0.511$ .

**Discussão:** É necessário reconhecer e gerir o FI, por métodos a nível individual e institucional. Mais estudos devem ser realizados sobre a prevalência de FI em médicos e sobre como gerir esse sentimento de impostor.

**Conclusão:** FI com uma pontuação igual ou superior a moderada foi detetada em 87,1% dos internos. As mulheres são mais afetadas. Encontrou-se correlação entre o FI e a satisfação com a média do internato. Não se verificaram correlações entre o FI, distress, ano de internato.

**Palavras-chave:** Fenómeno do Impostor, CIPS, Internos de MGF, PHQ-4.

## **BACKGROUND:**

The Imposter Phenomenon (IP) was first dated in 1978 by Pauline Rose Clance and Suzanne Imes, who described it as 'an internal experience of intellectual phoniness'<sup>1</sup> in successful individuals, like health professionals and students<sup>2,3</sup> who, lacking the perception of their high abilities<sup>4</sup>, feel like frauds, attributing their successes, to luck or error, rather than accepting the merit of their tasks<sup>5,6</sup>, which affects their career progression and psychological well-being<sup>7</sup>.

Initially, IP was identified in high achieving women, associated with family dynamics from an early age and the stereotypes implemented by the society in which they were inserted<sup>1</sup>. Several studies showed that men are also prone to IP<sup>7,8</sup>, however, there are some studies that reported a prevalence in females<sup>3</sup>.

A study of the Wisconsin general practice residency in 2004 showed that 1/3 of the resident's suffered from IP, and consequent levels of distress, because they felt they were not competent or intelligent enough to perform their professional role. Of this study population, 41% of women had IP compared to 24% in men. Participants who had high CIPS scores also struggled with depression, anxiety, and self-esteem issues<sup>9</sup>.

To detect the presence of IP, we use the Clance Impostor Phenomenon Scale (CIPS), published in 1985.

The CIPS is clearly related to 3 principal components analysis (PCA): FAKE, LUCK, DISCOUNT<sup>8</sup>. However, studies point to the existence of a 4<sup>th</sup> factor, FEAR. The fourth factor of the current model is mostly composed of items that translate 'fear of failing'<sup>10</sup>, previously affiliated with the factor 'FAKE'<sup>10</sup>.

Thus, although the 3-factor model is more widely used, the 4-factor model is 'more balanced and efficient in factorial composition'<sup>10</sup>.

IP is related to mental health problems, namely distress, anxiety, depression, burnout, frustration, and low self-esteem<sup>1,3,11</sup>. A study showed that 'in residents, the prevalence of depression or depressive symptoms is estimated to be 28.8% worldwide'<sup>11</sup>.

To assess the participants' level of distress, we used The Patient Health Questionnaire-4 (PHQ-4). PHQ-4 is a combination of 2 scales: Patient health questionnaire-2 (PHQ-2) with 2

items about depression; and Generalized anxiety disorder (GAD-2) with 2 items related to anxiety<sup>12-14</sup>.

The aim of this study was to assess the prevalence of the Impostor Phenomenon in General Practice/Family Medicine residents in the central region of Portugal in 2022, by gender, year of residency (1st-4th year) and satisfaction with curriculum mean mark. The assessment of its correlation with distress, anxiety, or depression measured by the PHQ-4 was another aim.



## **METHODS**

A cross-sectional observational and correlational study was carried on the general practice/family medicine resident's universe in the central region of Portugal in 2022.

The protocol sample size, by protocol, was calculated for a confidence interval of 95% and a 10% margin of error, considering the total number of general practice/family medicine resident's in the central region of Portugal ( $n= 495$ ) as of  $n=83$ .

Although the total sample was 89 participants, the study was conducted with 62 participants since the rest chose to only answer part of the questionnaire. To be considered eligible to participate in the study, participants had to complete the entire questionnaire, including the variables (gender, year of residency, satisfaction with curriculum mean mark), the PHQ-4 scale, and the CIPS. Participants who chose not to complete the scale responses were excluded from the study.

This study was approved by the Ethics Committee of ARS Centro (Annex I), the author of the CIPS scale authorized its use (Annex II) and the Authorization from the Coordinator of the Residency in General Practice/Family Medicine of the Center Region (Annex III). Data collection started between January and September 2022; several reminders having been sent.

The questionnaire was designed in Google-forms (Annex IV), with only 1 answer per person, anonymity of all participants was ensured, and consent button to continue questionnaire answering. CIPS and PHQ-4 scales, and context variables as gender, year of residency, satisfaction with curriculum mean mark and, to prevent repetition of responses, the last 3 digits of the participants' cell phone numbers were requested.

After data collection, descriptive and inferential statistics procedures were performed to analyze data. Parametric for normal distribution data and nonparametric for data without normal distribution or for ordinal variables was made, using the 27<sup>th</sup> edition of the IBM Statistical Package for the Social Sciences (SPSS) Statistics, setting a p value of  $<0.05$  for statistical significance.

The Kolmogorov-Smirnov test was used to assess whether the variables have a normal distribution, or non-parametric tests will be applied.

The Mann-Whitney U test was used to determine the prevalence of IP among residents according to gender and satisfaction with curriculum mean mark.

The Kruskal Wallis test was used to assess whether the prevalence of IP varied by year of residency.

Spearman's correlation was used to assess the relationship between IP and distress.

Per protocol data will be kept in form for a minimum period of 5 years, after which it will be deleted.

### **Tools:**

**CIPS-** a 20-items measurement instrument on a Likert scale of 1 (not at all true); 2 (rarely); 3 (sometimes); 4 (often); 5 (very true). The total scale ranges from values 20-100 and depending on the final test score, the individual will be categorized into one of the following IP categories: Few Impostor characteristics (if the total score is 40 or less); Moderate IP experiences (if the score is between 41 and 60); Frequent Impostor feelings (for a score between 61 and 80) and Intense IP experiences (for a score higher than 80)<sup>10,11</sup>. 'The higher the score, the more frequently and seriously the Impostor Phenomenon interferes in a person's life'<sup>15</sup>.

**PHQ-4-** results from the junction of PHQ-2 and GAD-2<sup>12</sup>, consists of 4 questions measured on a scale of 0-12, for the last 14 days, responses being scored as: 0- not at all; 1- several days; 2- more than half the days; 3- nearly every day. The obtained answers place the individual in one of 4 categories, referring to the level of anxiety and depression: Normal (0-2), Mild (3-5), Moderate (6-8), Severe (9-12).

## RESULTS

### Sample's characteristics

This sample's study was composed by 80% female (n=50), 1<sup>st</sup> year resident's of 30.6% (n=19) of the 2<sup>nd</sup>, 24.2% (n=15) of the 3<sup>rd</sup>, 17.7% (n=11) and of the 4<sup>th</sup>, 27.4% (n=17), according to Table 1. The satisfaction with curriculum mean mark in numerical grade, was of satisfaction by the majority 51,6%, women were more satisfied n=26 (52%). Among those who were not satisfied the majority were men n=4 (33.3%). No differences were found by gender for year of residency (p=0.768) or satisfaction with the curriculum mean mark (p=0.640) according to Table1.

**Table 1** Characterisation of the sample

Characteristics	Gender, n (%)		Sample Total n= 62 (100%)	P value (*)
	Male n=12(20%)	Female N=50(80%)		
<b>Year of residency attendance, n (%) (*)</b>				
1 <sup>st</sup>	3 (25%)	16(32%)	19(30.6%)	0.768
2 <sup>nd</sup>	4 (33.3%)	11(22%)	15(24.2%)	
3 <sup>rd</sup>	1(8.3%)	10(20%)	11(17.7%)	
4 <sup>th</sup>	4(33.3%)	13(26%)	17(27.4%)	
<b>Satisfaction with curriculum mean mark in numerical grade, n (%)</b>				
Yes	6(50%)	26(52%)	32 (51.6%)	0.640
No	4 (33.3%)	10 (20%)	14 (22.6%)	
Not applicable	2 (16.7%)	14(28%)	16(25.8%)	

(\*) Mann-Whitney U test

The analysis of satisfaction with the curriculum average numerical grade and year of residency showed, as expected 1<sup>st</sup> year respondents scarcely responding and 2<sup>nd</sup>, 3<sup>tr</sup> and 4<sup>th</sup> year more satisfied,  $p=0.026$  as shown in Table 2.

**Table 2** Year of residency and satisfaction with the curriculum average numerical grade.

Characteristics	Satisfaction with curriculum mean mark in numerical grade, n (%)			Sample Total n (%)	P value (*)
	NO	YES	No Answer		
		n=14	n=32	n=16	n= 62
Year of residency attendance, n (%) (*)					
1 <sup>st</sup>	1(7.1%)	2(6.3%)	16(100%)	19 (30.6%)	
2 <sup>nd</sup>	5(35.7%)	10(31.3%)	0	15 (24.2%)	0.026
3 <sup>rd</sup>	1(7.1%)	10(31.3%)	0	11 (17.7%)	
4 <sup>th</sup>	7 (50%)	10(31.3%)	0	17(27.4%)	

(\*) Kruskal-Wallis test

### PHQ-4 and CIPS

PHQ-4 and CIPS scores *Kolmogorov-Smirnov* tests revealed a not normal distribution ( $p=0.001$  and  $p=0.030$ , respectively) and so non-parametric tests were applied.

The Spearman's correlation between PHQ-4 and CIPS, was very week not significant,  $\rho=0.085$ ,  $p=0.511$ . The same occurred the classes of distress (PHQ4) and IP ( $\rho= 0.050$ ,  $p=0.701$ ).

Statistically significant differences were observed between female and male gender for CIPS class ( $p=0.036$ ), revealing the Frequent Impostor Feelings and Intense IP Experiences levels being significantly more frequent in females, according to Table 3.

**Table 3** CIPS descriptive statistics based on gender.

	<b>Criterion</b>	<b>Gender, n (%)</b>		<b>Total sample, n (%)</b> n= 62 (100%)	<b>P value (*)</b>
		<b>Male</b> n=12 (20%)	<b>Female</b> n=50 (80%)		
<b><u>CIPS</u></b>	Sum of the twenty item scores				
Few Impostor Characteristics	≤ 40 points	2 (16.7%)	6 (12%)	8 (12.9%)	0.036
Moderate IP Experiences	41 to 60 points	5 (41.7%)	9 (18%)	14 (22.6%)	
Frequent Impostor Feelings	61 to 80 points	5 (41.7%)	22 (44%)	27 (43.5%)	
Intense IP Experiences	> 80 points	0 (0%)	13 (26%)	13 (21%)	

**(\*) Mann-Whitney U test**

Crossing the residents' gender with the PHQ-4 global score, distress class, CIPS global score and CIPS class, there were no statistically significant differences in the first 3 (p= 0.640, p=0.696; p= 0.059, respectively). (Table 4)

No significant differences were observed in PHQ-4 global score, distress class, CIPS global score and CIPS class according to year of residency (p=0.598, p=0.625, p=0.085, p=0.131, respectively). (Table 4)

As a function of satisfaction with curriculum mean mark and considering only 2nd to 4th year interns (n=43), there were significant differences in the CIPS global score (p=0.043) and no significant differences in the PHQ-4 global score, distress class, and CIPS class (p=0.685, p=0.690, p=0.088, respectively). (Table 4)

**Table 4** Significance (p) of nonparametric tests between the epidemiologic variables and the classes PHQ-4, Distress, CIPS.

Epidemiologic Variables	n	PHQ-4 global score	Distress class	CIPS Score	Global	CIPS Class
Gender (*)	62	0.640	0.696	0.059		0.036
Year of residency (**)	62	0.598	0.625	0.085		0.131
Satisfaction with curriculum mean mark in numerical grade (**)	43	0.685	0.690	0.043		0.088

(\*) Mann-Whitney U test, (\*\*) Kruskal-Wallis test

Table 5 shows, in the overall CIPS score in the 3rd year, the average score is the lowest (53.18) and half of these residents are positioned between 26 and 53 (moderate IP experience); 2nd and 4th year residents have close average scores (68.67 and 71.29, respectively) and half of each group is at the frequent IP feelings level (between 72 and 87 and between 70 and 96, respectively).

**Table 5** CIPS descriptive statistics based on year of residency.

	Mean	Median	Standard error	Minimum	Maximum
<b><u>CIPS (*)</u></b>					
2 <sup>nd</sup> year (n=15)	68.67	72	±15.43	32	87
3 <sup>rd</sup> year (n=11)	53.18	53	±19.18	26	83
4 <sup>th</sup> year (n=17)	71.29	70	±19.73	35	96

(\*) p=0.043, Kruskal-Wallis test

Since statistically significant differences were found for the total CIPS for gender and satisfaction with curriculum mean mark, the 4 CIPS factors DISCOUNT, LUCK, FAKE and FEAR were studied.

The 4 factors of CIPS were subjected to normality test and the result of *Kolmogorov-Smirnov* test revealed the absence of normal distribution in the 4 factors (Discount  $p=0.004$ , Luck  $p<0.001$ , Fake  $p=0.063$ ; Fear  $p<0.001$ ). Table 6 shows no significant differences in any of the 4 factors regarding gender, year of residency, and satisfaction with mean curricular mark.

**Table 6** Significance ( $p$ ) of nonparametric tests between the epidemiologic variables and the 4 factors.

<b>Epidemiologic Variables</b>	<b>n</b>	<b>Discount</b>	<b>Luck</b>	<b>Fake</b>	<b>Fear</b>
<b>Gender (*)</b>	62	0.309	0.070	0.148	0.159
<b>Year of residency (**)</b>	62	0.664	0.862	0.632	0.942
<b>Satisfaction with curriculum mean mark in numerical grade (**)</b>	43	0.218	0.301	0.451	0.180

(\*) Mann-Whitney U test, (\*\*) Kruskal-Wallis test

## **DISCUSSION**

### **Sample's characteristics and size**

This study was conducted with the purpose of detecting the prevalence of IP among residents from central Portugal and ascertaining whether it was related to the level of distress, gender, year of residency and satisfaction with curriculum mean mark.

A sample of 89 residents, from a universe of 495, participated in this study (a higher number than necessary to carry out the study,  $n=83$ ), but only 62 participants were analyzed because of incomplete questionnaire answering.

This answering frequency must be debated for several reminding messages were sent., although the size sample is enough. Did they not answer for fear of suffering IP? Were they afraid of showing they had IP? Did they answer the questionnaire and not sent it for fear?

No correlation was observed between PHQ-4 class and CIPS class.

### **IP's prevalence as a function of gender, year of residency and satisfaction with the curriculum average**

Of the 62 participants, 12.9% ( $n=8$ ) had Few, 22.6% ( $n=14$ ) Moderate, 43.5% ( $n=27$ ) Frequent and 21% ( $n=13$ ) Intense IP experience. Thus, most residents present Frequent Impostor feelings (43.5%), differing from other previous studies, revealing the severity of IP in these responding residents.

In the categories of Few IP and Moderate IP, men showed higher prevalence (16.7%; 41.7%, respectively). However, in the higher levels of IP, Frequent and Intense, women showed higher levels (44%; 26%, respectively), consistently with other studies<sup>16</sup>.

Significant difference for satisfaction with curriculum mean mark in the 2<sup>nd</sup>, 3<sup>rd</sup> and the 4<sup>th</sup> year of residency and the CIPS levels of the participants ( $p=0.043$ ) was observed. Residents with higher average scores had higher IP scores. This could be explained by Perfectionism, which is a personality type associated with IP<sup>3</sup>.

Regarding year of residency, no statistically significant differences related to IP were demonstrated, which is corroborated by other studies already conducted<sup>9,11,16</sup>.



No relationship was found between CIPS and PHQ-4, which differs from previous studies showing a positive correlation between feelings of imposter and mental health problems, namely, distress, anxiety, and depression<sup>11</sup>.

### **Study's limitations**

Although a significant sample was collected, generalization to all residents in Portugal, we must consider factors that may make their experiences variable, namely cultural, socioeconomic, and psychological factors.

The results may have been influenced by the intrinsic quality of the respondents and its sample size. One must wonder about the reasons for this representative, yet short rate of answering. Tiredness of questionnaires answering? Being afraid of answering? Intuition of bad results? Sufferance with the questions leading to answering rejection? The question now is: How can the medical community answer these results? What must be done in pre-graduate and in post-graduate? What kind of doctors do we need? What kind of persons are these specialists to be, going to be?

### **Dealing with the Impostor Phenomenon and the future**

Given the harmful effect of IP on resident's, there are three key actions to take: recognize, increase awareness and manage IP. This management must involve both individual and institutional measures<sup>6,7</sup>.

At the individual level, cognitive-behavioral interventions must be used, with the goal of improving self-awareness, perception of thoughts and behaviors associated with IP<sup>7</sup>.

Peer support can be very beneficial in combating IP, so one should acknowledge and share feelings of IP with trusted peers and realize that one is not alone, ask for truthful and objective feedback from mentors and accept it both if positive and negative, practice self-compassion, keep a record of one's accomplishments and one's skills to achieve them, practice thought stopping, maintain a growth mindset, and do individual or group psychotherapy, if needed<sup>3,7</sup>.

However, doctors may not seek that support they need from the health care institutions they belong to, so health care organizations themselves, must act and implement their own strategies, such as workshops where an inclusive learning environment is created to learn how to address, manage and reduce IP<sup>3,7</sup>.

In the future, more research should be conducted to assess the impact of these interventions in reducing imposter feelings.

Further studies are essential to expand the application of the CIPS in General Practice Resident's from other regions of the country, as well as to physicians, to determine the prevalence of IP and possibly establish a comparison, considering the variables of the different study groups.

## **CONCLUSIONS**

Of the sample under study, 87.1% of the resident's have an IP score at or above Moderate, higher levels of IP were detected in women, but no difference detected in the different residency years.

As for the satisfaction with curriculum mean mark of the 2nd, 3rd and 4th year, a relationship was found with the values of feelings of impostor. The 3rd year, with the lowest mean, has lower impostor feelings values (between 26-83) than the 2nd and 4th year (between 32-87 and 35-96, respectively).

There is no relationship between IP levels and the participants' levels of distress (PHQ-4) ( $p=0.701$ ).

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ANNEXES:

ANNEX I – Ethics approval and consent to participate.



COMISSÃO DE ÉTICA PARA A SAÚDE

PARECER FINAL: FAVORÁVEL	DESPACHO: <i>Tomar conhecimento e deliberar homologar o Parecer Final da Comissão de Ética para a Saúde.</i>  13. 07. 2021  Conselho Diretivo da A.R.S. do Centro, I.P.
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ASSUNTO:	<b>Título:</b> "O Fenómeno do Impostor no Internato de Medicina Geral e Familiar, na região centro de Portugal " (processo 115-2021). <b>Autores:</b> Ana Pilar Gonçalves dos Santos Rebelo, <i>[Signature]</i> Pereira, Rui Miguel Santiago; José Augusto Simões <b>Instituições:</b> Faculdade de Medicina da Universidade de Coimbra
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*[Signature]*  
Dr. Mário Ruivo  
Vogal

*[Signature]*  
Dr. Fernando Cravo  
Vogal

Os autores pretendem avaliar a prevalência do fenómeno do impostor em médicos internos de Medicina Geral e Familiar em fevereiro de 2022.

Estudo observacional transversal, com recurso às escalas CIPS (CIPS-European-Portuguese/ Clance IP Scale) e PHQ4 (Patient Health Questionnaire), que serão aplicadas a médicos internos de Medicina Geral e Familiar, que aceitarem participar no estudo, voluntariamente, através da assinatura do Consentimento Informado. A aplicação dos questionários será realizada *on-line* através da rede dedicada da Coordenação do Internato de Medicina Geral e Familiar da Região Centro, que aceitou participar no estudo.

Estão garantidas todos os aspectos ético legais.

Solicita-se posteriormente o envio do relatório final do estudo.

Pelo exposto somos de parecer Favorável à realização do estudo

O Relator e Presidente da CES-ARS do Centro *[Signature]*

*[Signature]*  
Prof. Doutora Isabel Vitória Figueiredo

**Ressalva:** A CE-ARSC enfatiza que a aprovação de um estudo não significa que venha a ter qualquer responsabilidade por danos ou outros atos ilícitos que possam vir a ser praticados no âmbito do mesmo. As opiniões apresentadas nas publicações, relatórios ao governo ou outros resultados desta investigação são da responsabilidade exclusiva dos investigadores.

## ANNEX II- Consent form requested by Dr. Pauline Rose Clance for research purposes using CIPS

### Permission To Use the Clance Impostor Phenomenon Scale (CIPS)

Please find attached the requested Clance IP Scale and scoring instructions. This correspondence constitutes permission to use the scale. I request that on each CIPS you use/distribute, that you have the copyright and permission information printed on each page:

Note. From The Impostor Phenomenon: When Success Makes You Feel Like A Fake (pp. 20-22), by P.R. Clance, 1985, Toronto: Bantam Books. Copyright 1985 by Pauline Rose Clance, Ph.D., ABPP. Reprinted by permission. Do not reproduce without permission from Pauline Rose Clance, [drpaulinrose@comcast.net](mailto:drpaulinrose@comcast.net), [www.paulinroseclance.com](http://www.paulinroseclance.com).

This clause is already on the attached CIPS copy.

If you do not want to put the name of the test or book on the scale if it may affect your research, contact me and I can send you a version of the scale without that specific information yet retaining the clause, "Under copyright. Do not reproduce without the permission of Dr. Pauline Rose Clance."

For research purposes, I also request that you send a citation and abstract/results summary of your work to me when you are completed with your research to add to the IP reference list.

For IP presentation purposes, I request that you send me a brief summary (i.e., couple of sentences) of participant (and your own) feedback about the presentation in regard to how the Impostor Phenomenon was received.

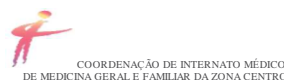
Thank you again for your interest in the Impostor Phenomenon. Please e-mail me that you agree with these conditions. You may refer participants to my website ([www.paulinroseclance.com](http://www.paulinroseclance.com)) for any interest in viewing IP articles and for my contact information.

Best,

Pauline Rose Clance, Ph.D., ABPP



**ANNEX III- Authorization from the Coordinator of the Internship in General Practice/Family Medicine of the Center Region**



## AUTORIZAÇÃO

*José Augusto Rodrigues Simões, Coordenador do Internato Médico de Medicina Geral e Familiar da Zona Centro, autoriza a realização de colheita de dados de médicos Internos com o propósito da realização do estudo:*

*O Fenómeno do Impostor no Internato de Medicina Geral e Familiar, na região centro de Portugal*

*Coimbra, 3 de janeiro de 2022*

*O Coordenador*

Assinado por: JOSÉ AUGUSTO RODRIGUES  
SIMÕES  
Num. de Identificação: 04181519  
Data: 2022.01.03 19:03:06+00'00'



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*Prof. Doutor José Augusto Simões*

## **ANNEX IV –Questionnaire**

### **Fenómeno do Impostor no Internato de Medicina Geral e Familiar, na região centro de Portugal**

Caro(a) Doutor(a):

Pretende-se com este questionário, determinar a prevalência do Fenómeno do impostor em médicos internos de Medicina Geral e Familiar, no ano letivo de 2021/2022.

O Fenómeno do Impostor ocorre em indivíduos que, apesar do seu evidente sucesso académico/profissional, são incapazes de o interiorizar, atribuindo-o à sorte, trabalho árduo e sacrifício pessoal e não à sua capacidade intelectual. Este fenómeno tem consequências nefastas para a saúde mental, visto que gera distress, ansiedade e depressão e em situações limite, pode conduzir ao burnout.

Este questionário destina-se à realização de um estudo no âmbito da tese de mestrado da Faculdade de Medicina da Universidade de Coimbra e o participante irá despende, em média, 10 minutos para o seu preenchimento.

Solicitamos a sua colaboração, garantindo uma participação anónima, confidencial e sigilosa, pelo que pode interromper a realização do questionário a qualquer momento, sem que com isso saia prejudicado(a). Os dados obtidos serão objeto de uma análise estatística conjunta, após terem sido colocados em base de dados, sem que haja conhecimento de quem respondeu ou de como respondeu pelo que também lhe solicitamos tal autorização. Os dados servirão exclusivamente para fins de investigação científica.

Ao submeter a sua resposta está a autorizar a recolha e tratamento de dados para os fins visados por esta investigação.

Caso surja alguma questão no preenchimento do questionário ou necessite de esclarecimentos adicionais, não hesite em contactar: [anapilar.pereira@gmail.com](mailto:anapilar.pereira@gmail.com)

Agradecemos a sua participação,

Ana Santos Pereira (Investigadora)

Luiz Miguel Santiago (Investigador e orientador)

José Augusto Simões (Investigador e co-orientador)

**Consentimento informado:**

Concordo com a afirmação: li e aceito participar de forma voluntária, tendo sido informado(a) acerca dos objetivos e pressupostos do estudo, permitindo o uso das minhas respostas para os fins referidos.

Sim • Não •

### Dados Biográficos

Sexo: Feminino • Masculino •

Insira os 3 últimos dígitos do número de telemóvel\_\_\_\_\_

Ano de frequência: 1º ano • 2º ano • 3º ano • 4º ano •

Está satisfeito com a sua média curricular? Sim • Não • Não se aplica se no 1º ano •

### PHQ-4

Durante as duas últimas semanas, com que frequência tem sentido os seguintes problemas? Assinale a sua resposta.	0- Não, de todo	1- Vários dias	2- Mais de metade dos dias	3- Quase todos os dias
Estar nervoso/a, ansioso/a ou "no limite"				
Não ser capaz de parar ou controlar a preocupação				
Ter pouco interesse ou prazer em fazer coisas				
Estar em baixo, deprimido/a, ou sem esperança				

### CIPS (Escala IP de Clance)

Pergunta	1-Não se aplica de todo	2- Raramente	3- Às vezes	4- Frequentemente	5- Aplica-se quase sempre
1. Muitas vezes, tive sucesso num teste ou tarefa apesar de ter medo de não ser capaz de o(a) fazer bem antes da sua realização.					
2. Consigo dar a impressão de que sou mais competente do que realmente sou.					

3.	Evito avaliações se possível e tenho medo de ser avaliado por outros.				
4.	Quando alguém me elogia pelos meus sucessos, fico com medo de não conseguir atingir as expectativas que terão de mim no futuro.				
5.	Às vezes, penso que só consegui atingir a minha posição ou os meus sucessos atuais porque tive a sorte de estar no lugar certo no tempo certo ou porque conheci as pessoas certas.				
6.	Tenho medo de que as pessoas que me são chegadas possam descobrir que não sou tão capaz como pensam que sou.				
7.	Tenho tendência a lembrar-me mais dos momentos em que não fiz o meu melhor mais do que dos momentos em que o fiz.				
8.	Eu raramente faço um projeto ou tarefa tão bem como gostaria.				
9.	Às vezes, sinto ou acredito que o sucesso na minha vida ou trabalho é o resultado de algum tipo de erro.				
10.	É-me difícil aceitar louvores ou elogios sobre a minha inteligência ou sucessos.				
11.	Por vezes sinto que o meu sucesso se deve a sorte.				
12.	Por vezes, sinto-me desiludido com os meus sucessos atuais e penso que devia ter conseguido mais.				
13.	Por vezes, tenho medo de que outros descubram quantos				

conhecimentos ou habilidades me faltam na realidade.					
14. Muitas vezes, tenho medo de poder falhar numa tarefa ou projeto novo apesar do facto de que geralmente as coisas que faço me correm bem.					
15. Quando tenho sucesso em algo e sou reconhecido por aquilo que consegui, fico na dúvida sobre se consigo continuar a obter o mesmo sucesso.					
16. Se receber muitos elogios e louvores por algum sucesso, tenho a tendência a negligenciar a importância daquilo que fiz.					
17. Muitas vezes, comparo as minhas habilidades com a habilidade das pessoas à minha volta e fico a pensar que eles são mais inteligentes do que eu.					
18. Muitas vezes, preocupo-me por não ter sucesso nalgum projeto ou avaliação, apesar das pessoas à minha volta terem muita confiança em que vou conseguir.					
19. Se vou receber uma promoção ou reconhecimento de algum tipo, hesito em dizer a outras pessoas, até ter a certeza do facto.					
20. Sinto me muito mal e desanimado se não sentir que sou “o melhor” ou pelo menos “muito especial” em situações que envolvem sucesso.					