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The imposter phenomenon in psychiatrists: relationships among compassion fatigue, burnout, and maladaptive perfectionism

Nur Nihal Türkel[1*], Ahmet Selim Başaran[2], Hande Gazey[3] and İrem Ekmekçi Ertek[4]

Abstract

Background The imposter phenomenon is the unwillingness to acknowledge one's triumphs, which is common among doctors. Research on the imposter phenomenon among mental health professionals is limited, and the relationship between imposter phenomenon, burnout, and compassion fatigue has not been studied. The current study intended to test a hypothesized model of the specific impact paths among burnout, compassion fatigue, maladaptive perfectionism, and imposter phenomenon among mental health professionals.

Methods A descriptive, cross-sectional online survey was conducted from June 2023 to September 2023. The sample ($n=160$) consisted of psychiatrists. A path analysis was used to test the relationships among study variables and assess model fit.

Results A strong correlation was found between the imposter phenomenon and burnout and compassion fatigue when controlling age and months of work for both genders. Maladaptive perfectionism, directly and indirectly, affected the imposter phenomenon through burnout and compassion fatigue.

Conclusion This study found that burnout and maladaptive perfectionism impact the imposter phenomenon in psychiatrists. To mitigate the effects of the imposter phenomenon on mental health professionals, societal norms that contribute to burnout and perfectionism must be reassessed.

Keywords Imposter phenomenon, Burnout, Perfectionism, Mental health professionals

Background

Regardless of Turkey having one of the lowest doctor-to-population ratios (1.8/1000) among OECD countries [1], healthcare professionals in Turkey are currently right now confronting increasingly tricky circumstances due to a decline in financial resources and a rise in violence against healthcare professionals [2]. Burnout is a psychological and physiological condition marked by emotional strain, commonly experienced by those working in professions that depend heavily on relationships with others [3]. As stated, burnout is prevalent among teachers, engineers, students, and healthcare professionals; nevertheless, compassion fatigue is a distinct subset of burnout [4–6]. Compassion fatigue, also known as secondary traumatic stress (STS), refers to a collection of symptoms commonly encountered by individuals who provide aid to victims of traumatic situations [7].

Previous studies indicate that burnout is dramatically frequent, affecting approximately 50% of practicing and

*Correspondence:
Nur Nihal Türkel
n.nihalqw@gmail.com
[1] Department of Psychiatry, Ankara Penitentiary Campus State Hospital, Ankara, Turkey
[2] Department of Psychiatry, Ünye State Hospital, Ordu, Turkey
[3] Department of Psychiatry, Bakırköy Mazhar Osman Mental Health and Neurological Diseases Education and Research Hospital, İstanbul, Turkey
[4] Department of Psychiatry, Gazi University Faculty of Medicine, Ankara, Turkey

training physicians [8]. Physician burnout is a prevalent issue that leads to inadequate patient care [9], fatigue, heightened inattention, and compromises personal and patient safety [10]. On the other hand, burnout is linked to increased psychiatric comorbidity, and research has demonstrated an association with problematic alcohol and substance use as well as suicide ideation [11, 12]. While the leading cause of burnout is typically attributed to systemic issues [13], it is worth noting that norms of professionalism and medical culture can also play a role in its development [14]. In particular, for mental health professionals, the burnout phenomenon is frequently associated with the stigmatizing nature of their profession [15]. The majority of their work involves traumatized patients, the occurrence of patients' suicide threats [16], and the demanding nature of the therapeutic relationship [17]. A meta-analysis revealed that 40% of mental health professionals experience burnout [18].

Burnout is associated with the distinctive attributes of medical education, as well as heightened workload, long working hours, stuck between bureaucracy and patient. Additionally, it is influenced by individual traits. Medical lecture rooms are populated by individuals who exhibit competitiveness and possess the capacity to withstand prolonged periods of rigorous training and demanding standards. Regrettably, these attributes are also linked to the occurrence of burnout [19].

Burnout is also linked to the imposter phenomenon. The Imposter Phenomenon, as initially conceptualized by Clance and Imes, refers to a psychological construct wherein an individual consistently holds the belief that their accomplishments and competence are not a result of their own personal effort, skill, and talent but instead due to external factors such as luck or error [20]. The imposter phenomenon among medical students is prevalent in studies [21]. Research conducted on medical students has demonstrated a correlation between the occurrence of the imposter phenomenon and the presence of depression, anxiety, and suicide ideation [22, 23]. The occurrence of the imposter phenomenon among actively practicing physicians has received limited academic attention. However, a recent study has revealed a noteworthy correlation between the imposter phenomenon and physician burnout [24].

Maladaptive perfectionism is a risk factor for developing the imposter phenomenon [25]. Impostors can be distinguished from non-impostors by their tendency to overgeneralize the negative consequences of failure, a cognitive distortion associated with maladaptive perfectionism [26]. The revised of the Almost Perfect Scale includes a discrepancy subscale that evaluates maladaptive perfectionism. Maladaptive perfectionism has been examined as a critical component of perfectionism's association with negative consequences [27]. Individuals exhibiting maladaptive perfectionism possess elevated aspirations alongside significant discrepancies on the APS-R Discrepancy subscale; they aspire to perfection while perceiving themselves as inadequate in achieving this objective [28]. Elevated scores on the Discrepancy subscale of the APS-R may differentiate between adaptive and maladaptive perfectionists. Consequently, the term discrepant perfectionism will be employed throughout the paper. It is crucial to comprehend the underlying mechanisms that connect these two concepts and contribute to psychological distress to understand the relationship between perfectionism and the imposter phenomenon. This study examined the impact of the imposter phenomenon and discrepant perfectionism on burnout, compassion satisfaction, and compassion fatigue, specifically among mental health professionals. While numerous medical specialties follow systematic diagnostic and treatment procedures that leave no room for oversight, psychiatry is a branch of science that embraces subjectivity in interpersonal interactions. Unlike other fields, psychiatry lacks a rigid algorithm and relies heavily on interviews encompassing diagnosis and treatment. As psychiatrists, their job is characterized by a constant learning process and diagnostic treatment interviews that are never flawless. Hence, the investigation of imposter phenomenon and perfectionism in psychiatrists is warranted. This work aims to fill these deficiencies.

We sought to analyze the connections between burnout, maladaptive perfectionism, and imposter phenomenon among mental health professionals using a path analysis to find both direct and indirect links. The proposed model is shown in the Fig. 1. Given that maladaptive perfectionism and imposter phenomenon stem from elevated expectations and feelings of inadequacy, we posited a direct relationship between maladaptive perfectionism and imposter phenomenon and an indirect relationship mediated by burnout, which may exacerbate feelings of inadequacy in individuals [29, 30]. Secondly, we assumed a positive correlation between maladaptive perfectionism, burnout, compassion fatigue, and imposter phenomenon, considering the variables of months of professional experience and age in mental health professionals. Furthermore, considering that professional confidence tends to rise with more outstanding work experience, we hypothesized a negative correlation between the months of working and the age of mental health professionals, imposter phenomenon, and maladaptive perfectionism [31].

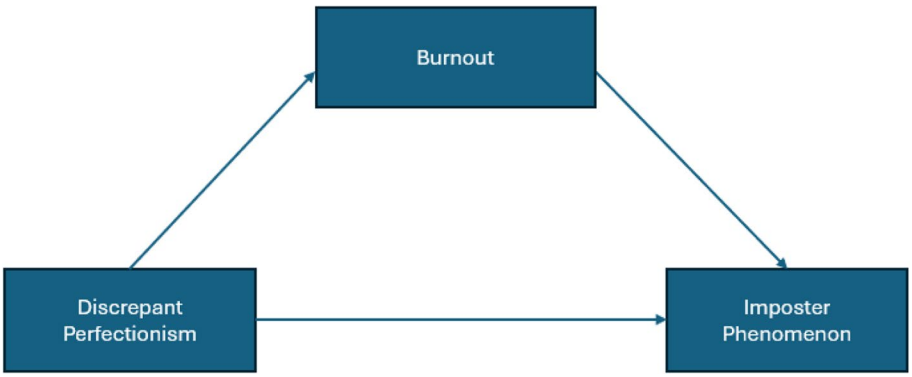

Fig. 1 The hypothesized model

Methods

Sample and procedure

Following the ethical guidelines outlined in the Declaration of Helsinki, this survey received approval from the Ethics Committee of Gazi University (Date: February 7, 2023, no: 2023/02, 2023 – 116). The present investigation was a cross-sectional online survey from June 2023 to September 2023. Eligible participants were psychiatrists from Turkey, aged 18–70 years, and residing in the country who agreed to participate. Participants were recruited by non-probability sampling by emailing a research invitation to psychiatrists registered with the Turkey Psychiatric Association between June and September 2023. Participants who accessed the link in the email were provided with the rationale and summary of the survey on the first page to assist them in determining their participation in the study. Participants who consented to participate in the survey proceeded by clicking "Continue" to complete the questionnaire. Following a stringent confidentiality policy, participants were not asked to provide their signatures and were informed that they might withdraw from the survey without explanation. Psychiatrists who agreed to the informed consent form were sent to a concise online study created by the authors using the Google Forms survey platform. Participants included 160 individuals who identified themselves as psychiatrists.

Measurements

Data was gathered through a self-administered online questionnaire consisting of two parts. The first part featured questions related to sociodemographic information. Participants were asked about their age, gender, marital status, type of workplace, and months of experience as a psychiatrist. The second section contained three self-report measurement instruments. Participants completed the "Professional Quality of Life Scale (ProQOL R-IV), the Clance Imposter Scale (CIPS), and the Discrepancy Subscale of Almost Perfect Scale-Revised (APS-R)."

The Professional Quality Of Life Scale (ProQOL R-IV) is a 6-point Likert-style scale consisting of 30 items with three factors and evaluates individuals' burnout, compassion satisfaction, and compassion fatigue [32]. Higher scores in each dimension indicate higher levels of compassion fatigue, compassion satisfaction, and burnout. The validity and reliability study of the scale was conducted by Yeşil et al. [33]. The Cronbach's Alpha ProQOL R-IV in this current study were 0.854, 0.890, and 0.690, respectively. Clance Imposter scale is a 20-question scale with a three-factor structure that evaluates the imposter phenomenon in a 5-point Likert style developed by Clance [34]. The Turkish validity and reliability study was conducted by Şahin et al., and the Turkish form of the scale has 17 items and a single-factor structure [35]. The higher total scores, the higher the imposter phenomenon. The Cronbach's Alpha Clance Imposter Scale is 0.927 in this study. The Almost Perfect Scale (APS-R) revised is a scale with a 7-point Likert structure consisting of 23 items, and its Turkish validity and reliability were determined by Ulu et al. [36]. There are three subscales: High Standards, Discrepancy, and Order. The Discrepancy Subscale of the scale, consisting of 12 items, was used in the research for evaluating maladaptive perfectionism. The Cronbach's Alpha Discrepancy Subscale of APS-R is 0.969 in the current study.

Statistical analysis

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS) (Version 22.0) and the Analysis of Moment Structures (AMOS) statistical software programs (Version 28.0). Descriptive analyses, i.e., mean, standard deviation (SD), frequencies, and percentages, were used to summarize the demographic characteristics of the study sample. Mann-Whitney U test was used to evaluate group differences along gender

lines. Associations between study variables were quantified using Spearman correlation coefficients and Spearman's Partial correlation coefficients for ordinal scales. Path analysis was employed to analyze the mediation association of maladaptive perfectionism (i.e., direct and indirect paths) among burnout and imposter phenomenon. A structural equation modeling (SEM) approach using the maximum-likelihood estimation was applied for the path analysis in this study. Unstandardized (B) and standardized regression (β) coefficients, standard errors, and *P*-values for β were utilized to compute the direct and indirect effects among observable variables. Five thousand bootstrap samples were generated in the study to obtain estimates with 95% bias-corrected confidence intervals. The goodness of fit of the SEM model was assessed using the chi-square statistic, the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square of approximation (RMSEA). Statistical significance was set at $p < 0.05$. A fit index provides a global examination of how well the collected data fit the hypothesized model [37]. The generally agreed-upon critical value ranges from 0 to 1, with TLI and CFI values 0,90 indicating a good fit and 0,80 < TLI/CFI < 0,90 being a marginal fit. In addition, the root mean square error of approximation (RMSEA) was used and evaluated using the criteria that a low value (between 0 and 0.06) is indicative of a good-fitting model [38].

Table 1 Sociodemographic characteristics of the participants ($N = 160$)

	N	%
Gender		
Female	110	%68.8
Male	50	%31.3
Marital status		
Married	74	%46.3
Single	73	%45.6
Divorced	13	%8.1
Institution		
Public Hospital	59	%36.9
University Hospital	73	%45.6
Private Hospital	9	%5.6
Other	19	%11.9
	Mean	SD
Age	33.72	8.88
Months of work	94.64	98.78

Results

Participants included 160 individuals who identified themselves as mental health professionals. The majority were female (68.8%). Ages ranged from 24 to 70, with a mean age of 33,72 ± 8.80. Months of work as a mental health professional ranged from a month to 42 years, with a mean length of 94.44 months. See Table 1 for more demographic information.

One hundred sixty mental health professionals completed the questionnaires within the entire sample. Table 2 displays the results of the differences between genders in compassion fatigue, burnout, imposter phenomenon, discrepant perfectionism, and compassion satisfaction. The data reveals that females obtained higher scores on these variables except compassion satisfaction than males. Males had higher scores in terms of compassion satisfaction.

The mean value, standard deviation of each variable, and the correlations among the study variables are presented in Table 3. Regarding Spearman correlations, the imposter phenomenon was positively correlated with compassion fatigue ($r = 0.602$, $p < 0.001$), burnout ($r = 0.524$, $p < 0.001$), and discrepant perfectionism ($r = 0.784$, $p < 0.001$) and negatively associated with compassion satisfaction ($r = -0.296$, $p < 0.001$). Imposter phenomenon was negatively correlated with both age

Table 2 Bivariate analysis of gender associated with continuous variables

	Gender	*N*	Mean Rank	Median	U	*p*
IP	Male	50	52.97	38.50	4.126	< 0.01
	Female	110	93.01	53.50		
DP	Male	50	56.65	31.00	3.942	< 0.01
	Female	110	91.34	52.50		
BO	Male	50	57.80	19.50	3.885	< 0.01
	Female	110	90.82	23.00		
CF	Male	50	59.64	12.50	3.793	< 0.01
	Female	110	89.98	18.50		
CS	Male	50	102.71	39.00	1.639	< 0.01
	Female	110	71.40	36.00		

IP Imposter Phenomenon, *DP* Discrepant Perfectionism, *BO* Burnout, *CF* Compassion Fatigue, *CS* Compassion Satisfaction

Table 3 Correlations table

	1	2	3	4	5	6	M	SD
1-IP	**1**						48.13	14.31
2-DP	0.784**	**1**					46.70	19.11
3- CS	−0.296**	−0.296**	**1**				35.58	7.34
4- CF	0.602**	0.535**	−0.075	**1**			17.11	8.53
5-BO	0.524**	0.561**	−0.405**	0.576**	**1**		21.93	6.61
6- Age	−0.339**	−0.353**	0.246*	−0.152	−0.150	1	33.72	8.80
7- Months	−0.342**	−0.375**	0.282**	−0.166*	−0.207*	0.921**	94.64	98.74

IP Imposter Phenomenon, *DP* Discrepant Perfectionism, *BO* Burnout, *CF* Compassion Fatigue, *CS* Compassion Satisfaction

*$p < 0.05$, **$p < 0.001$

($r = -0.339$, $p < 0.001$) and months of work ($r = -0.342$, $p < 0.001$). Also, discrepant perfectionism was negatively correlated with months of work ($r = -0.353$, $p < 0.001$) and age ($r = -0.375$, $p < 0.001$).

When controlling for months of work as a mental health professional and age, the imposter phenomenon was positively associated with compassion fatigue, burnout, and discrepant perfectionism in both sexes. However, when controlling for months of work as a mental health professional and age, the imposter phenomenon was not correlated with compassion satisfaction in both sexes. Results for partial correlation are shown in Table 4.

Analysis of Moment Structures (AMOS) statistical software program (Version 28.0) was used in the study to examine the mediating effect of burnout between discrepant perfectionism and imposter phenomenon. Structural equation modeling (SEM) was used to analyze the mediation effect. All the path coefficients were statistically significant. The results showed a marginal fit of the model to the data [$\chi 2$ (df = 677) = 1134,481, $\chi 2$/df = 1.676; RMSEA = 0.065; TLI = 0.890 and CFI = 0.899]. These results showed that burnout and discrepant perfectionism have significant effects on the imposter phenomenon among mental health professionals. In mediation analysis using AMOS, the bootstrapping procedure creates an empirical representation of the sampling distribution of the indirect effect by resampling the sample of size n during the analysis, thus enhancing the estimation accuracy of the indirect effects [39]. This study estimated the mean of 95% confidence intervals (CI) of indirect effects derived from 5000 bootstrap samples. If the upper and lower bounds of the CI do not include zero, then the presence of an indirect effect can be concluded with 95% confidence. Figure 2 shows the indirect effect of burnout on the association between discrepant perfectionism and imposter phenomenon. Bootstrapping results indicated that burnout partially mediated the link between discrepant perfectionism and imposter phenomenon [95% CI (0.087, 0.258); indirect effect = 0.164, SE = 0.044, $p < 0$ 0.001; total effect = 0.816, SE = 0.059, $p < 0.001$; direct effect = 0.652, SE = 0.034, $p < 0.001$.

Figure 3 shows the indirect effect of compassion fatigue on the association between discrepant perfectionism and imposter phenomenon. All the path coefficients were statistically significant. The results showed a marginal fit of the model to the data [$\chi 2$ (df = 685) = 1164,210, $\chi 2$/df = 1.700; RMSEA = 0.066; TLI = 0.886 and CFI = 0.895 Bootstrapping results indicated that compassion fatigue partially mediated the link between discrepant perfectionism and imposter phenomenon [95% CI (0.084, 0.255); indirect effect = 0.155, SE = 0.043, $p < 0.001$; total

Table 4 Partial correlations table when controlling for age and months of work

	Male (*n*:50)					Female (*n*:110)				
	IP	DP	CS	CF	BO	IP	DP	CS	CF	BO
IP	1					1				
DP	0.700**	1				0.722**	1			
CS	−0.227	0.573**	1			−0.128	−0.0135	1		
CF	0.693**	−0.223	−0.91	1		0.456**	0.383**	0.118	1	
BO	0.481*	0.475*	−0.318*	0.489**	1	0.429**	0.473**	−0.308*	0.528**	1

IP Imposter Phenomenon, *DP* Discrepant Perfectionism, *BO* Burnout, *CF* Compassion Fatigue, *CS* Compassion Satisfaction

*$p < 0.05$, **$p < 0.001$

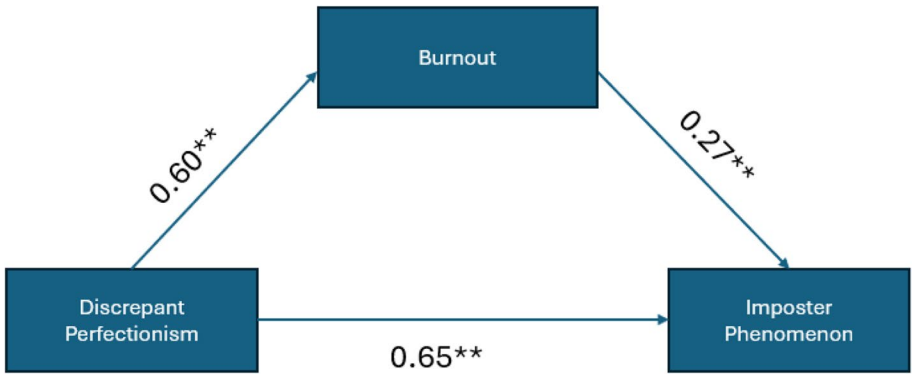

Fig. 2 Associations involving discrepant perfectionism, burnout, and imposter phenomenon. The final model for the whole sample ($n = 160$), with standardized beta weights and significant level, $^{**}p < 0.001$

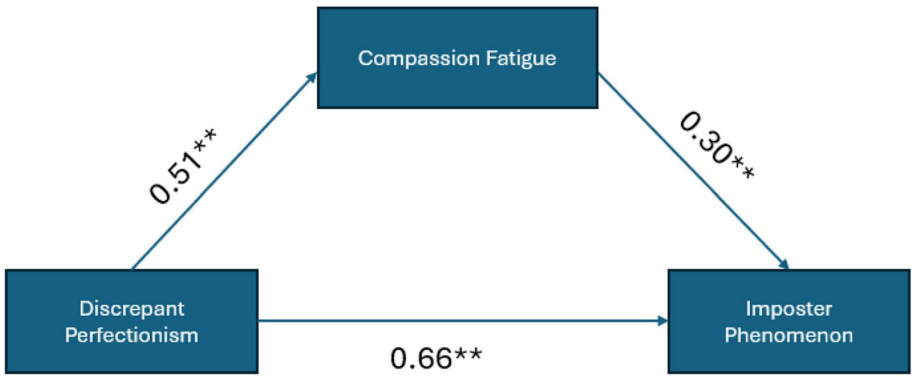

Fig. 3 Associations involving discrepant perfectionism, compassion fatigue, and imposter phenomenon. The final model for the whole sample ($N = 160$), with standardized beta weights and significant level, $^{**}p < 0.001$

effect = 0.812, SE = 0.033, $p < 0.001$; direct effect = 0.657, SE = 0.057, $p < 0.001$.

Discussion

This study aimed to examine the relationships between imposter phenomenon, discrepant perfectionism, compassion fatigue, and burnout among mental health professionals. This study is the first to specifically investigate the imposter phenomenon among mental health professionals in Turkey and to analyze potential differences in these characteristics based on gender. The present study showed a positive correlation between the imposter phenomenon (IP) and compassion fatigue, burnout, and discrepant perfectionism in both genders while controlling for months of work and age. IP was unrelated to compassion satisfaction in both sexes when controlling months of work and age. As expected, women achieved higher average scores than males in IP and discrepant perfectionism. A further discovery is a negative correlation between IP and discrepant perfectionism and age and months of work. The mediation analysis indicated that burnout and compassion fatigue mediate between the imposter phenomenon and discrepant perfectionism.

The study showed several expected results, including the fact that female psychiatrists exhibited higher levels of IP, discrepant perfectionism, compassion fatigue, and burnout while also reporting lower levels of compassion satisfaction. Prior research has uncovered a fundamental inconsistency about gender disparities in the imposter phenomenon. While Clance and Imes Alan [20] initially identified the imposter phenomenon in high-achieving women, subsequent studies by researchers like Maftei [40] and Wang [25] failed to demonstrate gender disparities in the imposter phenomenon. Nevertheless, the lack of gender balance in the study population prevents the findings from applying to a broader population. Conversely, concerning internalized gender roles, it is plausible that women may feel compelled to demonstrate their abilities more extensively in all domains due to their greater responsibilities within and outside the household than men [41]. This mindset has the potential to activate imposter beliefs. Butler has linked competitiveness to 'hegemonic masculinity' in the context of culturally

influenced femininity and masculinity [42]. Within the masculine value system, women may face a dilemma where their identities are questioned [43]. The imposter phenomenon illustrates the impact of societal structures based on "masculine dominance", often reflecting the internalization of gendered expectations and power dynamics [44]. One example of this phenomenon is that in Turkey's clinical practice, numerous female doctors are called "doctor sir" by their patients.

Furthermore, there is a negative correlation between IP, discrepant perfectionism, age, and months of work. This conclusion is in line with other research in the field, suggesting that it may be linked to the growing sense of professional confidence and familiarity that individuals develop as they acquire more significant experience in their field [31, 45]. Lane et al. provided evidence that acquiring experience diminishes the imposter phenomenon [46]. Furthermore, considering that many people commonly encounter feelings of newness and a sense of not belonging while initiating their new career, it might substantially diminish the sensation of the imposter phenomenon throughout their initial year in their job [45]. In addition, those who have encountered IP can discontinue their career due to the stress and mental health issues it might result in [47]. The transition process from the categorical disease definition to the patient-specific one, experienced through professional experience, and the realization that mental treatment is constructed in the intersubjective field may allow individuals to move away from the idea of an ideal doctor. This could explain why there is a negative correlation between professional experience and discrepant perfectionism.

A significant positive association was observed between IP and discrepant perfectionism after controlling for age and years of work in both males and females. The study's results were corroborated by other investigations, which demonstrated a robust correlation between perfectionism and the imposter phenomenon [25, 26, 48]. The discrepancy subscale of the almost perfect scale evaluates the perception that an individual cannot regularly fulfill the elevated standards they establish for themselves, which strongly indicates self-critical perfectionism [49]. Higher scores on the discrepancy subscale recognize maladaptive perfectionism. These individuals strongly desire perfection despite perceiving themselves as distant from accomplishing it [28]. Individuals expressing maladaptive perfectionistic tendencies possess issues related to perfectionism, such as fixating on their shortcomings, which increases their susceptibility to experiencing feelings of imposter.

This research supported prior literature findings by demonstrating that discrepant perfectionism is linked to compassion fatigue and burnout in males and females after accounting for working years and age. Burnout occurs when an individual's capacity to deal with stress is insufficient in the face of the stressor. Maladaptive perfectionists may regard their coping resources as inadequate to satisfy the expectations imposed on them, which could account for the association between burnout and perfectionism [50]. Prior research has also emphasized comparable results [51, 52]. In their work with family therapists, Holden et al. discovered a correlation between self-oriented perfectionism and seconder traumatization and burnout [53].

In additional exploratory analyses, it was discovered that there is a positive correlation between IP and both compassion fatigue and burnout after adjusting for age and years of work in both males and females. Prior research has established a correlation between IP and burnout [24, 54] and compassion fatigue [31]. Demerouti et al. defined burnout as a state of imbalance between the demands of a job and the psychological, physical, and organizational resources needed to meet those demands [55]. Individuals with elevated levels of IP need help to acknowledge their abilities and lose faith in their ability to influence positive results. Consequently, a decrease in personal resources can render individuals more susceptible to experiencing burnout [54]. Likewise, persons with high levels of IP may have workaholism [56] or procrastination [57] tendencies, which can contribute to burnout. On the other hand, persons going through burnout may decline their self-esteem [29]. This can lead them to disregard their current achievements or create false beliefs that their efforts are pointless. According to Schubert et al., there is a correlation between low self-esteem and the emergence of the imposter phenomenon [30].

The mediation analyses revealed that burnout was a mediator in the relationship between perfectionism and IP. Perfectionism, a characteristic of medical culture, is prevalent among physicians in research [58]. While beneficial in preventing medical errors and ensuring high-quality patient care, numerous studies consistently link perfectionism traits to burnout [59–61]. Concerns with perfectionism [62] significantly influence the imposter phenomenon. The study findings indicate that maladaptive perfectionism can directly cause the emergence of the imposter phenomenon. Perfectionist persons may suffer alienation from their skills and develop the imposter phenomenon due to burnout. Conversely, individuals with imposter phenomenon may encounter increased burnout due to diminished trust in their experiences. This study indicates that burnout mediates the relationship between maladaptive perfectionism and the imposter phenomenon; however, the relationship between the imposter phenomenon and burnout may be reciprocal. Nonetheless, the cross-sectional design of our

study precluded the examination of causal relationships. Longitudinal studies are essential to elucidate the causal links between burnout and the imposter phenomenon.

Within the mental health industry, professionals often experience self-doubt, uneasiness, and ambiguity regarding their competence as common risks associated with the practice of psychotherapy [63]. The tendency towards perfectionism can harm psychiatrists, given that they view themselves as a crucial instrument in their profession, and the doctor-patient dynamic inherently instills a sense of responsibility to heal the patient [64]. Mental health practitioners are susceptible to experiencing perfectionism, which can lead to an imposter phenomenon. Burnout often impacts this, which can be exacerbated by a heavier job, administrative demands, and limited resources [65].

At this stage, implementing measures to address perfectionist concerns, such as fostering a psychiatric training environment that embraces professional mistakes and failures rather than interventions that promote individual resilience, and taking organizational steps to address burnout, such as working with a supervisor and reducing working hours, can help prevent the development of imposter phenomenon in individuals [66]. Eventually, acknowledging the imposter phenomenon and normalizing these feelings, particularly among beginners to the profession, can safeguard individuals from its detrimental impacts. At this juncture, the implementation of group therapy targeting the imposter phenomenon and the provision of regular peer supervision may be beneficial.

There are some limitations in our investigation. Firstly, it should be noted that the survey primarily included female participants, perhaps limiting its representation of mental health practitioners in Turkey as an entire group. On the other hand, evaluation scales were constructed using self-report methodologies, but in-depth interviews can provide a more elucidating understanding of the relationship between factors. In addition, the participants' prior knowledge of the study's subject and objective may have resulted in biased responses to the questions. Furthermore, this study failed to consider several crucial distinguishing attributes of clinicians, such as gender identity, sexual orientation, and the frequency of interactions with clients who have experienced trauma.

Conclusion

This study is crucial for mental health practitioners as it is the first investigation in a Turkish sample that explores the correlation between perfectionism, burnout, and imposter phenomenon among mental health professionals. This study showed that burnout and compassion fatigue mediate the relationship between the imposter phenomenon and discrepant perfectionism. Further investigation is required to comprehend the correlation between the imposter phenomenon, perfectionism, and burnout. Given the limitations of our study, longitudinal research could elucidate the causal relationship between imposter phenomenon and burnout; qualitative studies may provide insights into this experience from a first-person perspective. Furthermore, designing studies that intervene in perfectionism may elucidate the management of the relationship between these concepts. Nevertheless, this study is a crucial first phase in understanding the emergence of the imposter phenomenon, perfectionism, and burnout.

Abbreviations

CIPS	Clance Imposter Phenomenon Scale
APS-R	Almost Perfect Scale-Revised
ProQOL R-IV	The Professional Quality Of Life Scale
IP	Imposter Phenomenon
DP	Discrepant Perfectionism
BO	Burnout
CF	Compassion Fatigue
CS	Compassion Satisfaction

Authors' contributions

NNT designed the study, IEE processed the data, HG and ASB drafted the manuscript, NNT IET analyzed and interpreted the results, and all authors reviewed the paper for intellectual content. All authors reviewed the final manuscript and gave their consent.

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Data availability

The datasets generated and/or analyzed during the current study are not publicly available due to restrictions from the ethics committee. Still, they are available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate

All participants were provided complete information on the study and provided their informed consent to participate. The Gazi University, Ankara, Turkey ethics committee approved the research protocol. The study followed the standards for medical research involving human subjects recommended by the Declaration of Helsinki for human research.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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References

1. Oecd. Health at a glance: OECD indicators. OECD; 2013.
2. Kaya S, Demir IB, Karsavuran S, Ürek D, Ilgün G. Violence against doctors and nurses in hospitals in Turkey. J Forensic Nurs. 2016;12(1):26–34.
3. Maslach C, Jackson SE. The measurement of experienced burnout. J Organiza Behav. 1981;2(2):99–113.

4. Chang M-L. An appraisal perspective of teacher burnout: examining the emotional work of teachers. Educ Psychol Rev. 2009;21:193–218.
5. Lingard H. The impact of individual and job characteristics on'burnout'among civil engineers in Australia and the implications for employee turnover. Constr Manage Econ. 2003;21(1):69–80.
6. Schaufeli WB, Martinez IM, Pinto AM, Salanova M, Bakker AB. Burnout and engagement in university students: a cross-national study. J Cross Cult Psychol. 2002;33(5):464–81.
7. Figley CR. Compassion fatigue: coping with secondary traumatic stress disorder in those who treat the traumatized. Routledge; 2013.
8. Rothenberger DA. Physician burnout and well-being: a systematic review and framework for action. Dis Colon Rectum. 2017;60(6):567–76.
9. Shanafelt TD, Bradley KA, Wipf JE, Back AL. Burnout and self-reported patient care in an internal medicine residency program. Ann Intern Med. 2002;136(5):358–67.
10. Dimitriu MC, Pantea-Stoian A, Smaranda AC, Nica AA, Carap AC, Constantin VD, et al. Burnout syndrome in Romanian medical residents in time of the COVID-19 pandemic. Med Hypotheses. 2020;144:109972.
11. Oreskovich MR, Kaups KL, Balch CM, Hanks JB, Satele D, Sloan J, et al. Prevalence of alcohol use disorders among American surgeons. Arch Surg. 2012;147(2):168–74.
12. Shanafelt TD, Balch CM, Dyrbye L, Bechamps G, Russell T, Satele D, et al. Special report: suicidal ideation among American surgeons. Arch Surg. 2011;146(1):54–62.
13. West CP, Dyrbye LN, Shanafelt TD. Physician burnout: contributors, consequences and solutions. J Intern Med. 2018;283(6):516–29.
14. Shanafelt TD, Schein E, Minor LB, Trockel M, Schein P, Kirch D. Healing the Professional Culture of Medicine. Mayo Clin Proc. 2019 ;94(8):1556–66.
15. Rössler W. Stress, burnout, and job dissatisfaction in mental health workers. Eur Arch Psychiatry Clin Neurosci. 2012;262:65–9.
16. Chemtob CM, Hamada RS, Bauer G, Kinney B, Torigoe RY. Patients' suicides: frequency and impact on psychiatrists. Am J Psychiatry. 1988;145(2):224–8.
17. Bressi C, Porcellana M, Gambini O, Madia L, Muffatti R, Peirone A, et al. Burnout among psychiatrists in Milan: a multicenter survey. Psychiatric Serv. 2009;60(7):985–8.
18. O'Connor K, Neff DM, Pitman S. Burnout in mental health professionals: a systematic review and meta-analysis of prevalence and determinants. Eur Psychiatry. 2018;53:74–99.
19. Dyrbye L, Shanafelt T. A narrative review on burnout experienced by medical students and residents. Med Educ. 2016;50(1):132–49.
20. Clance PR, Imes SA. The imposter phenomenon in high achieving women: dynamics and therapeutic intervention. Psychotherapy Theory Res Pract. 1978;15(3):241.
21. Villwock JA, Sobin LB, Koester LA, Harris TM. Impostor syndrome and burnout among American medical students: a pilot study. Int J Med Educ. 2016;7:364.
22. Ikbaal MY. Prevalence of impostor phenomenon among medical students in a Malaysian private medical school. Int J Med Stude. 2018;6(2):66–70.
23. Brennan-Wydra E, Chung HW, Angoff N, ChenFeng J, Phillips A, Schreiber J, et al. Maladaptive perfectionism, impostor phenomenon, and suicidal ideation among medical students. Acad Psychiatry. 2021;45:708–15.
24. Shanafelt TD, Dyrbye LN, Sinsky C, Trockel M, Makowski MS, Tutty M, et al. Imposter Phenomenon in US Physicians Relative to the US Working Population. Mayo Clin Proc. 2022;97(11):1981–93.
25. Wang KT, Sheveleva MS, Permyakova TM. Imposter syndrome among Russian students: the link between perfectionism and psychological distress. Pers Individ Dif. 2019;143:1–6.
26. Thompson T, Foreman P, Martin F. Impostor fears and perfectionistic concern over mistakes. Pers Individ Dif. 2000;29(4):629–47.
27. Sherry SB, MacKinnon AL, Fossum K-L, Antony MM, Stewart SH, Sherry DL, et al. Perfectionism, discrepancies, and depression: testing the perfectionism social disconnection model in a short-term, four-wave longitudinal study. Pers Individ Dif. 2013;54(6):692–7.
28. Slaney RB, Rice KG, Ashby JS. A programmatic approach to measuring perfectionism. The Almost Perfect Scales; 2002.
29. Rosse JG, Boss RW, Johnson AE, Crown DF. Conceptualizing the role of self-esteem in the burnout process. Group Organ Stud. 1991;16(4):428–51.
30. Schubert N, Bowker A. Examining the impostor phenomenon in relation to self-esteem level and self-esteem instability. Curr Psychol. 2019;38:749–55.
31. Clark P, Holden C, Russell M, Downs H. The impostor phenomenon in mental health professionals: relationships among compassion fatigue, burnout, and compassion satisfaction. Contemp Fam Ther. 2022;44(2):185–97.
32. Stamm BH. Measuring compassion satisfaction as well as fatigue: developmental history of the compassion satisfaction and fatigue test. Treating compassion fatigue. Newyork: Routledge; 2013. p. 107–19.
33. Yeşil A, Ergün Ü, Amasyali C, Er F, Olgun NN, Aker AT. Çalışanlar İçin Yaşam Kalitesi Ölçeği Türkçe Uyarlaması Geçerlik ve Güvenilirlik Çalışması. Arch Neuropsychiatry. 2010;47(2):111–7.
34. Clance PR. The impostor phenomenon: When success makes you feel like a fake. Toronto: Bantam Books; 1985. p. 20–2.
35. Şahin EE, Gülşen FU. Clance Impostor Phenomenon Scale (CIPS): adaptation and validation in Turkish University students. Psycho-Educational Res Reviews. 2022;11(1):270–82.
36. Ulu IP, Tezer E, Slaney RB. Investigation of adaptive and maladaptive perfectionism with Turkish almost perfect scale—revised. Psychol Rep. 2012;110(3):1007–20.
37. Schreiber JB. Core reporting practices in structural equation modeling. Res Social Administrative Pharm. 2008;4(2):83–97.
38. Khairi MI, Susanti D, Sukono S. Study on structural equation modeling for analyzing data. Int J Ethno-Sciences Educ Res. 2021;1(3):52–60.
39. Hayes AF. Beyond Baron and Kenny: statistical mediation analysis in the new millennium. Communication Monogr. 2009;76(4):408–20.
40. Maftei A, Dumitriu A, Holman A-C. They will discover I'ma fraud! the imposter syndrome among psychology students. Stud Psychol (Bratisl). 2021;63(4):337–51.
41. Clance PR. The impostor phenomenon: Overcoming the fear that haunts your success. Atlanta: Peachtree Publishers; 1985. p. 204–9.
42. Wren Butler J. I shouldn't be here': academics' experiences of embodied (Un) belonging, gendered competitiveness, and inequalities in precarious English higher education. In: The Palgrave handbook of imposter syndrome in higher education. Springer; 2022. p. 37–54.
43. Jackson C. Transitions into higher education: gendered implications for academic self-concept. Oxf Rev Educ. 2003;29:331–46.
44. Rettig C. Perceptions of women in public leadership: discussing the imposter phenomenon. University of Twente; 2020.
45. Clark M, Vardeman K, Barba S. Perceived inadequacy: a study of the imposter phenomenon among college and research librarians. Coll Res Libr. 2014;75(3):255–71.
46. Lane JA. The imposter phenomenon among emerging adults transitioning into professional life: developing a grounded theory. Adultspan J. 2015;14(2):114–28.
47. Urwin J. Imposter phenomena and experience levels in social work: an initial investigation. Br J Social Work. 2018;48(5):1432–46.
48. Dudău DP. The relation between perfectionism and impostor phenomenon. Procedia-Social Behav Sci. 2014;127:129–33.
49. Flett GL, Mara CA, Hewitt PL, Sirois F, Molnar DS. How should discrepancy be assessed in perfectionism research? A psychometric analysis and proposed refinement of the almost perfect scale–revised. J Psychoeduc Assess. 2016;34(7):718–32.
50. Tashman LS, Tenenbaum G, Eklund R. The effect of perceived stress on the relationship between perfectionism and burnout in coaches. Anxiety Stress Coping. 2010;23(2):195–212.
51. Fye HJ, Gnilka PB, McLaulin SE. Perfectionism and school counselors: differences in stress, coping, and burnout. J Couns Dev. 2018;96(4):349–60.
52. Moate RM, Gnilka PB, West EM, Bruns KL. Stress and burnout among counselor educators: differences between adaptive perfectionists, maladaptive perfectionists, and nonperfectionists. J Couns Dev. 2016;94(2):161–71.
53. Holden CL, Jeanfreau MM. Are perfectionistic standards associated with burnout? Multidimensional perfectionism and compassion experiences among professional MFTs. Contemp Fam Ther. 2023;45(2):207–17.
54. Liu RQ, Davidson J, Van Hooren TA, Van Koughnett JAM, Jones S, Ott MC. Impostorism and anxiety contribute to burnout among resident physicians. Med Teach. 2022;44(7):758–64.

55. Bakker AB, Demerouti E, Sanz-Vergel AI. Burnout and work engagement: the JD–R approach. Annu Rev Organ Psychol Organ Behav. 2014;1(1):389–411.
56. Ross SR, Krukowski RA. The imposter phenomenon and maladaptive personality: type and trait characteristics. Pers Individ Dif. 2003;34(3):477–84.
57. Ferrari JR, Thompson T. Impostor fears: links with self-presentational concerns and self-handicapping behaviours. Pers Individ Dif. 2006;40(2):341–52.
58. Peters M, King J. Perfectionism in doctors. British Medical Journal Publishing Group; 2012.
59. Robertson JJ, Long B. Suffering in silence: medical error and its impact on health care providers. J Emerg Med. 2018;54(4):402–9.
60. Classen DC, Kilbridge PM. The roles and responsibility of physicians to improve patient safety within health care delivery systems. Acad Med. 2002;77(10):963–72.
61. Martin SR, Fortier MA, Heyming TW, Ahn K, Nichols W, Golden C, et al. Perfectionism as a predictor of physician burnout. BMC Health Serv Res. 2022;22(1):1425.
62. De Vries M. The dangers of feeling like a fake. Harv Bus Rev. 2005;83(9):108.
63. Thériault A, Gazzola N. Therapist feelings of incompetence and suboptimal processes in psychotherapy. J Contemp Psychother. 2010;40:233–43.
64. Guízar-Sánchez M, Yoldi-Negrete R, Robles-García CA, Tovilla-Zarate L, Manjarrez-Gutiérrez CK, Lugowski-Rivero G, et al. Self-perceived health in psychiatrists and psychiatry trainees. The role of perfectionism and distress. Salud Mental. 2020;43(5):201–8.
65. Reid Y, Johnson S, Morant N, Kuipers E, Szmukler G, Thornicroft G, et al. Explanations for stress and satisfaction in mental health professionals: a qualitative study. Soc Psychiatry Psychiatr Epidemiol. 1999;34:301–8.
66. Atherley A, Meeuwissen SN. Time for change: overcoming perpetual feelings of inadequacy and silenced struggles in medicine. Med Educ. 2020;54(2):92.

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