



Prevalence of Obsessive-Compulsive Personality Disorder Symptoms and Its Association with Burnout among Family Medicine Residents in Riyadh Second Health Cluster, Saudi Arabia

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Abstract

Aim: The present study aimed at investigating the prevalence of Obsessive-compulsive personality disorder (OCPD) and the association between OCPD and burnout among family medicine residents in cluster two hospitals in Riyadh city, Saudi Arabia. **Method:** This was a cross-sectional study over a sample of 114 family medicine residents from hospitals at cluster two in Riyadh city. A self-administered survey consisting of the Diagnostic and Statistical Manual of Mental Disorders; (DSM-5 criteria) questionnaire for OCPD and Maslach Burnout Inventory- (MBI) were distributed over the participating family medicine residents. **Results:** The findings of the study indicated that OCPD was prevalent among 22.8% (n=26) of the enrolled family medicine residents. In addition, it was found that high emotional exhaustion, high depersonalization and low professional accomplishment were prevalent among 33.4% (n=38), 57% (n=65) and 93% (n=106), respectively. In addition, the study found that there was a significant association between OCPD and emotional exhaustion ($p < 0.001$), depersonalization ($p < 0.001$) and professional accomplishment ($p < 0.001$). **Conclusion:** The study concluded that there is a significant prevalence of OCPD among family medicine residents in cluster two hospitals in Riyadh city, Saudi Arabia. In addition, the study concluded that OCPD is significantly associated with burnout. The study recommended reviewing the educational and professional content of the residency program taking into consideration the mental health aspects of the family medicine residents and to perform periodical mental health assessment tests for the family medicine residents in Saudi Arabia.

Keywords: Obsessive-compulsive personality disorder, Burnout, Family medicine residents, Maslach Burnout Inventory.

Introduction

"Obsessive-compulsive personality disorder (OCPD) also called anankastic personality disorder is a personality disorder characterized by a general pattern of concern with orderliness, perfectionism, excessive attention to details, mental and interpersonal control, and a need for control over one's environment, at the expense of flexibility, openness and efficiency. Workaholism and miserliness are also seen often in those with a personality disorder" ^[1-3].

Even though OCPD is the most common personality disorder, there is very little data measuring its prevalence and it is greatly understudied. Its prevalence varies between (3-8)% among the general population and the outpatient settings ^[4,5]. So far, up to our knowledge, there have not been any studies on OCPD in Saudi Arabia. The symptoms of OCPD include: "being over devoted to working, perfectionism that interferes with task completion and reluctance to delegate work to other people." (DSM-4 Criteria) ^[6,7]. This pattern of perfectionism and the need to be in control can potentially affect all domains of an individual's life. Due to their

idealism, their behavior could theoretically pre-dispose them to work addiction and eventually burnout [8,9].

Burnout is defined in ICD-11 as "a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed [10,11]. It is characterized by three dimensions: feelings of energy depletion or exhaustion; increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and reduced professional efficacy" [12,13]. It is not classified as a medical condition but it is now recognized as a global health care predicament. It is regarded to be widely spread among many professions especially among those who work in health care [14]. The impact of burnout goes beyond work performance, as it can be the cause of psychological-emotional and physical stress [15]. In the US, burnout affects more than half of practicing physicians and, more worryingly, is on the rise among medical students and trainees [16]. It has been reported in 50% of all US physicians and 63% of family physicians, and it seems to be increasing [17].

In a study done in Riyadh Military Hospital, Saudi Arabia among 200 family medicine residents, it is reported that 75% of them expressed at least one burnout symptom and that 2.78% scored high in all three burnout dimensions (emotional exhaustion, depersonalization, personal accomplishment) [18].

Another study conducted in Al Madinah, Saudi Arabia, showed that 32.0% of family physicians showed high burnout, (33.3%) showed moderate burnout, and 34.7% showed low burnout [19].

There have been limited studies correlating OCPD and burnout. Considering the nature of individuals with OCPD, it is likely that they're more at risk to develop burnout. This study aimed to recognize individuals with OCPD and identify it as a risk for burnout. This can aid in early proper intervention and thus reduce its outcomes.

Method

The study design is a cross-sectional study that targeted all family medicine residents in Riyadh second health cluster, who are 178 residents.

The study period was during the year 2020-2021 for 6-10 months after obtaining IRB approval. Questionnaires were distributed among family medicine residents of all levels (R1- R4) that are self-answered questions.

The sampling technique was convenient sampling in which the sample size included all current 178 family medicine residents.

The study variables are age, gender, the former city of residence, marital status, residency program center, residency level, years of practice, and pre-existing psychiatric illnesses (depression and anxiety).

The measurement tools are two self-administered questionnaires with informed consent. The first one is the Diagnostic and Statistical Manual of Mental Disorders; (DSM-5 criteria) questionnaire for OCPD. OCPD symptom status was quantified using the eight-item tick list; endorsement of four or more items was necessary for confirmation of significant OCPD symptoms.

The second questionnaire is the Maslach Burnout Inventory- (MBI) questionnaire for assessing burnout. It is a self-report instrument that contains 22-item measuring three independent subscales namely: Emotional Exhaustion (EE), which refers to the inability of individuals to 'give of themselves' at a psychological level. This occurs as a result of feelings of being emotionally overextended and exhausted by one's work. It consists

of nine items. Depersonalization (DP), in contrast, refers to the development of cold, negative attitudes towards those who use services, it includes five items, and finally, Personal Accomplishment (PA) reduced personal accomplishment refers to the loss of the ability to value one's contribution to work, and it contains eight items.

For each statement of job-related feelings in the MBI questionnaire, the participants were asked to rate the statements by using a scale of never (0) to Everyday [6].

If the participants never had this feeling, they were asked to write the number "0" (zero) in the space before the statement. If they had this feeling, they had been invited to indicate how often they feel it by writing the number (from 1 to 6) that best describes how frequently they feel that way.

A scoring system was used according to the authors' scoring guides. For the (EE) subscale, a total mean subscale score 0-16 indicates a low level of (EE), and a mean score of 17-26 indicates a moderate level of (EE) and a mean score more than 27 indicates a high level of (EE) as well. Moreover, with regards to the (DP), a total mean subscale score 0-6 considered a low level of (DP), and a mean score of 7-12 considered a moderate level of (DP) and a mean score of 13 and more was considered as a high level of (DP). For the (PA) subscale, a low level of (PA) was considered if the total mean score was 0-31. If the (PA) mean score was 32-38, it was considered a moderate level of (PA), and if the mean score was 39 and above, the (PA) level was considered high.

Data Analysis

All data were analyzed through the statistical package of Social Sciences (SPSS) (v. 25 IBM Corp). Descriptive statistics were used to describe the socio-demographic characteristics of the study participants, to measure the prevalence of OCPD and burnout. In addition, the Chi-square analysis was used to identify any significant differences in burnout and OCPD among the enrolled family medicine residents OCPD and burnout levels. Moreover, independent samples t-test was used to assess the association between burnout scores and OCPD diagnosis. A significance level of ($\alpha \leq 0.05$) was used as a statistical significance threshold.

Results

A total of 114 family medicine residents participated in the present study with a response rate of 64%. The results presented in table (1) represent the socio-demographic characteristics of the study participants. The majority of the enrolled family medicine residents (86.8%, n=99) were 24 to 30 years old, whereas 13.2% (n=15) were older than 30 years. In addition, it was found that male family medicine residents constituted 50.9% (n=58), whereas females represented 49.1% (n=56).

Distributing the enrolled family medicine residents based on their marital status revealed that single residents constituted 66.7% (n=76), whereas engaged/married and divorced/widowed participants constituted 31.6% (n=36) and 1.8% (n=2), respectively. About 89.5% (n=102) of the participating family medicine residents were in Cluster 2 King Fahad Medical City, whereas 9.6% (n=11) were in the residency program at Cluster 2 Prince Mohammed Bin Abdulaziz hospital.

Moreover, it was found that 37.7% (n=43) of the enrolled family medicine residents were at their third level, 25.4% (n=29) were at the second residency training level, and 20.2% (n=23) and 16.7% (n=19) were at the first and fourth residency training levels, respectively.

Table 1: Demographic characteristics of study participants

Demographic characteristics	Frequency (%)
Age	
24-30	99 (86.8%)
older than 30	15 (13.2%)
Gender	
Female	56 (49.1%)
Male	58 (50.9%)
Marital status	
Single	76 (66.7%)
Engaged/Married	36 (31.6%)
Divorced	2 (1.8%)
Residency program	
Cluster 2 King Fahad Medical City	102 (89.5%)
Cluster 2 Prince Mohammed Bin Abdulaziz Hospital	11 (9.6%)
Level of training	
R1	23 (20.2%)
R2	29 (25.4%)
R3	43 (37.7%)
R4	19 (16.7%)

The results shown in table (2) represent the prevalence of OCPD symptoms among the enrolled family medicine residents. The

results showed that 22.8% (n=26) of the enrolled family medicine residents were diagnosed with OCPD as they had 4 or more symptoms. In addition, the results showed that “Preoccupation with details, rules, schedules, organization, and lists” was the most prevalent symptom (62.3%, n=71), followed by “A striving to do something perfectly that interferes with completion of the task” that was prevalent among 50% (n=57). In the third rank was “Unwillingness to throw out worn-out or worthless objects, even those with no sentimental value”, which was prevalent among 23.7% (n=27), followed by “Reluctance to delegate or work with other people unless those people agree to do things exactly as the patients want” that was prevalent among 22.8% (n=26) and “Excessive conscientiousness, fastidiousness, and inflexibility regarding ethical and moral issues and values” that was prevalent among 17.5% (n=20).

The least prevalent symptoms were “Excessive devotion to work and productivity (not due to financial necessity), resulting in neglect of leisure activities and friends” that was prevalent among 16.7% (n=19), followed by “Rigidity and stubbornness” that was prevalent among 14% (n=16) and “A miserly approach to spending for themselves and others because they see money as something to be saved for future disasters”, which was least prevalent among 13.2% (n=15).

Table 2: OCPD symptoms prevalence among enrolled family medicine residents (n=114)

OCPD symptoms	Frequency (%)
Preoccupation with details, rules, schedules, organization, and lists	71 (62.3%)
Excessive devotion to work and productivity (not due to financial necessity), resulting in neglect of leisure activities and friends	19 (16.7%)
Excessive conscientiousness, fastidiousness, and inflexibility regarding ethical and moral issues and values	20 (17.5%)
A striving to do something perfectly that interferes with the completion of the task	57 (50.0%)
Unwillingness to throw out worn-out or worthless objects, even those with no sentimental value	27 (23.7%)
Reluctance to delegate or work with other people unless those people agree to do things exactly as the patients want	26 (22.8%)
A miserly approach to spend for themselves and others because they see money as something to be saved for future disasters	15 (13.2%)
Rigidity and stubbornness	16 (14.0%)
OCPD diagnosis (endorsement of 4 or more symptoms)	26 (22.8%)

The results presented in table (3) show the prevalence of burnout among the enrolled family medicine residents. It was found that 18.4% (n=21) had low emotional exhaustion, 48.2% (n=55) had moderate emotional exhaustion, whereas high emotional exhaustion was prevalent among 33.4% (n=38) of the enrolled family medicine residents.

In addition, it was found that 13.2% (n=15) had low depersonalization, 29.8% (n=34) had moderate depersonalization, whereas 57% (n=65) had high levels of depersonalization. Moreover, the results showed that 93% (n=106) had low professional accomplishment, whereas 5.3% (n=6) and 1.8% (n=2) had moderate and high professional accomplishment. Respectively.

Table 3: Burnout scores

Burnout subscales	Mean (SD)	Frequency (%)
Emotional Exhaustion (EE)	23.97 (9.46)	
Low (0-16)		21 (18.4%)
Moderate (17-26)		55 (48.2%)
High (27 or over)		38 (33.4%)
Depersonalization (DP)	13.39 (5.94)	
Low (0-6)		15 (13.2%)
Moderate (7-12)		34 (29.8%)
High (13 or over)		65 (57.0%)
Professional Accomplishment (PA)	17.39 (8.29)	
Low (0-31)		106 (93.0%)
Moderate (32-38)		6 (5.3%)
High (39 or over)		2 (1.8%)

Note: SD = standard deviation

As shown in table (4), Fisher’s Exact Test was used to identify any significant statistical differences in the OCPD among the enrolled family medicine residents based on their demographic characteristics. The results showed that there were no significant

statistical differences in OCPD prevalence referred to the demographic characteristics of the enrolled family medicine residents.

Table 4: Relationship between demographic factors and OCPD diagnosis

Demographic characteristics	N (%) diagnosed with OCPD within the demographic group	Statistical comparison test
Age 24-30 older than 30	21 (21.2%) 5 (33.3%)	Fisher’s exact test p = 0.327
Gender Female Male	17 (30.4%) 9 (15.5%)	Fisher’s exact test p = 0.075
Marital status Single Engaged/Married Divorced	19 (25.0%) 6 (16.7%) 1 (50.0%)	Fisher’s exact test p = 0.306
Residency program Cluster 2 King Fahad Medical City Cluster 2 Prince Mohammed Bin Abdulaziz Hospital	22 (21.6%) 4 (36.4%)	Fisher’s exact test p = 0.273
Level of training R1 R2 R3 R4	6 (26.1%) 5 (17.2%) 7 (16.3%) 8 (42.1%)	Fisher’s exact test p = 0.140

Independent samples t-tests were performed to compare mean burnout scores between participants who were diagnosed with OCPD vs those who did not. The results showed that there was a significant statistical difference in emotional exhaustion between family medicine residents diagnosed with OCPD (30.56±7.26) and family medicine residents with no OCPD (22.00±9.15), (t(112) = 4.42, p < 0.001). In addition, it was found that there was a significant statistical difference in depersonalization between

family medicine residents diagnosed with OCPD (17.23±3.95) and family medicine residents with no OCPD (12.26±5.97), (t(112) = 3.99, p < 0.001). Finally, it was found that there was a significant statistical difference in professional accomplishment between family medicine residents diagnosed with OCPD (22.88±5.88) and family medicine residents with no OCPD (15.76±8.23), (t(112) = 4.11, p < 0.001).

Table 5: Association between burnout scores and OCPD diagnosis

Burnout subscales	OCPD diagnosis		Statistical comparison test
	No (n = 88) Mean (SD)	Yes (n = 26) Mean (SD)*	
Emotional Exhaustion (EE)	22.00 (9.15)	30.65 (7.26)	t(112) = 4.42, p < 0.001
Depersonalization (DP)	12.26 (5.97)	17.23 (3.95)	t(112) = 3.99, p < 0.001
Professional Accomplishment (PA)	15.76 (8.23)	22.88 (5.88)	t(112) = 4.11, p < 0.001

*SD = standard deviation

The results presented in table (6) show the Chi-square analysis for the interaction between OCPD and burnout among the enrolled family medicine residents. The results showed that there was a significant interaction between emotional exhaustion and OCPD (χ^2 (2) = 14.91, p = 0.001). In addition, the results revealed that there

was a significant interaction between depersonalization and OCPD (χ^2 (2) = 11.29, p = 0.004). However, the results showed that professional accomplishment had no significant interaction with OCPD (χ^2 (1) = 1.06, p = 0.304).

Table 6: Association between burnout scores and OCPD diagnosis

Burnout	N (%) diagnosed with OCPD within burnout level	Statistical association test
Emotional Exhaustion (EE) Low (0-16) Moderate (17-26) High (27 or over)	0 (0%) 10 (18.2%) 16 (42.1%)	χ^2 (2) = 14.91, p = 0.001
Depersonalization (DP) Low (0-6) Moderate (7-12) High (13 or over)	0 (0%) 4 (11.8%) 22 (33.8%)	χ^2 (2) = 11.29, p = 0.004

Professional Accomplishment (PA)		$\chi^2(1) = 1.06, p = 0.304$
Low (0-31)	23 (21.7%)	
Moderate/High (32 or over) ¹	3 (37.5%)	

Note: 1 moderate and high categories were consolidated due to small frequencies

Discussion

Obsessive-Compulsive Personality Disorder, also known shortly as OCPD, is a constellation of maladaptive personality traits that lead to functional impairment or distress [20]. The core features are perfectionism, which can interfere in completing tasks, so the individual is relentlessly pursuing unattainable standards even when continuing to pursue those standards leads to problems, and they are also over evaluating themselves [21]. So, their self-worth is strongly affected by their ability to meet the standards that are not attainable. So, perfectionism is one and then the other part is rigidity, which causes them significant interpersonal problems, so they have difficulty having a meeting with the minds of other people or it can be difficult for others to sway them from their strongly held beliefs [22]. Those are the two cores and whenever doing a factor analysis of the DSM criteria, those seem to be the two major factors that come up, but then other pieces are important as well as covered by the DSM like preoccupation with order and details, lists, and schedules, excessive devotion to work, feel uncomfortable when they have downtime, they often choose to participate in work, activities over social and leisure [23]. Some features that are not actually in the DSM are things like having difficulty with change, so they feel most comfortable with routines, and they are excessively rule-bound [24].

The present study aimed at exploring the prevalence of OCPD symptoms and its association with burnout among family medicine residents at Riyadh second health cluster hospitals in Saudi Arabia. The study findings revealed that about one-fifth of the family medicine residents were diagnosed with OCPD. This result might be attributed to the residency program nature and requirements, as this program is a combination of educational and professional practice themes, which imposes an increased load on the family medicine residents and increases their irrational thoughts and fears. In addition, the prevalence of OCPD among family medicine residents might be referred to the current pandemic conditions that require them to exert increased efforts in their educational and professional practice. This is evidenced by the findings reported by Galea et al. [25] who reported that infectious epidemics are always accompanied by psychological disorders that may develop in some people into health disorders, beginning with mixed feelings such as fear, anxiety and mood or sleep disturbances and others may occur. These symptoms have become hindering the individual from enjoying his/her day or carrying out his/her tasks, which may need therapeutic intervention. Examples of these disorders are severe depression, anxiety disorder, or OCPD.

Moreover, the results of the study showed that emotional exhaustion and depersonalization were prevalent in a significant category of family medicine residents. This might be referred to the working conditions of the family medicine residents, which requires them to simultaneously focus on the educational aspect for their preparation for the exams and to practice the family medicine profession to acquire the competencies required for their profession. This increased load significantly affects the mental health of the medical residents especially since this study was conducted during the COVID-19 pandemic, a crisis event that exacerbated the study and workload over the family residents in healthcare settings that provide healthcare services for a population

of hundreds of thousands in Riyadh city. This result is supported by the findings reported by Kannampallil et al., [26] who reported that the COVID-19 pandemic significantly increased the levels of stress and burnout over the resident medical trainees.

We found no significant difference in the prevalence of OCPD symptoms referred to the participants' demographic characteristics. This result might refer to the fact that the participating family medicine residents enrolled in this study regardless of their age, gender, marital status or residency level, are exposed to similar conditions and they are under the same level of study and work pressure. The requirements of each level of the residency programs require an intensive effort to pass the level and obtain its certificate. Therefore, there was no difference in the prevalence of OCPD symptoms.

Moreover, the study findings revealed that there was a significant statistical difference in burnout subscales between family medicine residents who were diagnosed with OCPD and those who were not. This result might be attributed to that burnout is a special type of work-related stress, a state of physical or psychological exhaustion that also includes a sense of decreased productivity and loss of personal identity, which is a reflection of OCPD accompanied by psychological and physical pressure that a person suffers from as a result of his feeling of pressure, so that he moves from a stage of enjoyment and high performance at work to a stage of apathy and lack of motivation, so he/she becomes unable to deal with the surrounding work conditions. These results are supported by the findings reported by Atroszko et al., [10] who found that OCPD and burnout are significantly associated.

Despite the significant findings reported in the present study, still, several limitations might limit the generalization of the study findings. These limitations include the geographical limitations as this study was performed in cluster two hospitals in Riyadh city. Other clusters and geographical areas in Saudi Arabia are not included in this study. In addition, the limited sample size is another limitation that affected the generalization of the study findings. Moreover, the lack of data regarding the previous diagnosis of mental health disorders among family medicine residents is another limitation that might affect the findings of the present study.

Conclusion

The present study concluded that OCPD is prevalent among family medicine residents in cluster two hospitals in Riyadh city, Saudi Arabia. In addition, it could be concluded that there is a significant association between emotional exhaustion and depersonalization on one hand and OCPD on the other hand.

Based on the findings of the present study, it would be significant to recommend healthcare policymakers review both the educational and professional content of the residency program in a way that is taken into consideration the mental health aspects of the family medicine residents. In addition, the study recommends conducting periodical mental health assessments for the family medicine residents enrolled in different levels of the residency program in Saudi Arabia.

Ethical Statement

This study was approved by the Institutional Review Board (IRB) at King Fahad Medical City, Saudi Arabia with an IRB Log number (20-742).

Conflict of Interest

The authors declare no conflict of interest

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Authors' contribution

Both authors Z. A. and S. A. contributed equally in finalizing this manuscript as both authors formulated the research problem, reviewed the literature, designed the methodology, performed the data collection, analyzed the harvested data and interpreted the results. All authors read and approved the final manuscript.

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