



Original Article

Prevalence of Obsessive Compulsive Symptoms in Medical and Dental Practitioners with respect to Gender

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ARTICLE INFO

Dental Practitioners, Medical Practitioners, Obsession

How to Cite:Ashraf, A., Hassan, S. A., Butt, H., Anjum, M. S., Babary, D. F., & Khan, N. R. (2023). Prevalence of Obsessive Compulsive Symptoms in Medical and Dental Practitioners with Respect to Gender : Obsessive Compulsive Symptoms in Medical and Dental Practitioners. *Pakistan Journal of Health Sciences*, 4(11).<https://doi.org/10.54393/pjhs.v4i11.1142>***Corresponding Author:**

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ABSTRACT

Obsessive compulsive disorder (OCD) comprises of mental images that provoke anxiety and fear and are recurrent. **Objective:** To find the prevalence of OCD symptoms in medical doctors and dentists with respect to gender. **Methods:** The study design was cross sectional comparative. It was conducted in College of Dentistry, Sharif Medical and Dental College Lahore. All practitioners irrespective of their age and gender were included in the study. Individuals practiced in a clinic or hospital for less than 6 months were excluded from the study. Obsessive compulsive inventory scale was used for data collection. **Results:** Gender of medical doctors and dentists and the symptom of washing ($p=0.335$, $p=0.760$ respectively), obsessing ($p=0.131$, $p=0.476$ respectively), checking ($p=0.620$, $p=1.000$ respectively) and neutralizing ($p=0.294$, $p=1.000$ respectively) was not significantly associated. The association between the symptom of ordering and gender of medical practitioners ($p=0.05$) was statistically significant. The association between gender of dental practitioners with hoarding ($p=0.188$), ordering ($p=0.713$) and doubting ($p=1.000$) was non-significant. **Conclusions:** Among the medical practitioners the symptoms of washing, obsessing, checking and neutralizing were higher in males as compared to the females. Among the dental practitioners the symptom of washing, obsessing and neutralizing were more prevalent in males while the symptom of checking was more prevalent in females. The symptoms of hoarding, ordering and doubting were more prevalent in males in comparison to female medical practitioners. Among the dental practitioners where the prevalence of hoarding was higher in the males while that of ordering and doubting was higher in the females

INTRODUCTION

Obsessive compulsive disorder (OCD) comprises of mental images that provoke anxiety and fear and are recurrent. Once triggered, it leads the patient to undergo a viscous cycle of mentally disturbing and physically exhausting patterns of repetitions of tasks and revising events [1]. It is a psychiatric illness that afflicts 2 to 3 percent of Americans and 2.3% of the world's population. It is amongst the 10 most disabling medical and psychiatric conditions [1]. Brain function impairment can be a consequence of these compulsions and obsessions. It can lead to compulsive behaviors in individuals that lead them to exhaustively repeat a particular task multiple times until they feel it is done rightly [2]. In order to control their

thoughts, OCD patients use various techniques which include mentally revising the distressing situation, worrying, distracting themselves, gaining social control and punishments [1, 2]. Out of these methods of thought control the most widely used was punishment and worrying. This has also shown to be an important point of discrimination between patients with and without OCD [1, 2]. OCD is a combination of various mentally distressing abnormalities and is multifaceted [3]. Due a lack of thorough understanding of this psychological ailment, the patients experience long term problems like depression and makes therapy less effective for [4]. An individual can develop it in their childhood as well as in adulthood [5]. OCD

is more prevalent among males in childhood and has a higher prevalence in females during the adolescent period [6]. An analysis of the gender differences shows that the higher incidence of OCD in females later in life may be related to the significantly lower duration of education and societal burdens of settling down with a partner [7]. Gender has a very important role to play in determining the personality and psychology of individuals [7]. The incidence of OCD is greater in females in America whereas an equal gender distribution is seen in Europe [7]. Development of obsessive or compulsive symptoms in individuals is driven by their gender [7]. Gender has a pivotal role as a mediator in the development of OCD. When developed in males OCD symptoms have an early onset and are very continuous and intense. In females the development of OCD has risk factors that can not only be identified but treated comparatively easily [8]. Apart from OCD other mental ailments that are more prevalent in females as compared to men include eating disorders. The aim of this study was to find the prevalence of obsessive compulsive symptoms in medical and dental practitioners with respect to gender.

METHODS

The study design was cross sectional comparative. The study took place from December 2022 to September 2023 in College of Dentistry, Sharif Medical and Dental College Lahore on 146 participants. Data were collected after obtaining ethical clearance from ethical committee of Sharif Medical Research Centre (No. SMDC/SMRC/270-22) received on 01.12.22. Inclusion criteria was medical doctors and dentists irrespective of their age and gender. Exclusion criteria was practitioners who practiced for less than 6 months were excluded from the study. Keeping precision 5%, prevalence of obsessive compulsive disorder 10% and confidence level of 95% the sample size was calculated to be 146 [9]. Informed consent prior to the collection of data were taken from participants. Medical doctors and dentists irrespective of their age and gender were included in the study. Practitioners who practiced for less than 6 months were excluded from the study. Obsessive compulsive inventory scale was used for data collection which was a pre-validated scale with a total of 42 questions answered on a five point Likert scale (0 = not at all; 1 = a little; 2 = moderately; 3 = a lot; 4 = extremely), 7 subscales and $\alpha = 0.966$ [10]. For all the questions answered on five point likert-scale a mean score was calculated for all 7 subscales which gave an overall mean distress score. Any individual with an overall score of 42 or mean score of 2.5 in a subscale was suggestive of OCD [10]. The subscales include washing (performing a cycle of events to purify oneself only due the fear or contamination), obsessing

(overwhelming anxiety and stress that renders one unable to carry out day to day activities), checking (the unavoidable urge to check repeatedly and look for errors), neutralizing (an effort to eliminate a disturbing thought that poses a great deal of distress), hoarding (compulsive inability to throw away useless items), ordering (an obsession to put everything in a certain way or manner) and doubting (to remain unsure of a certain event even after repeated going over the situation mentally to the point of exhaustion). Mean and standard deviation was used to present numeric data while percentages and frequencies were used to present nominal data. The statistical analysis was done using Statistical Package for Social Sciences version 23.0. $P \leq 0.05$ was considered significant. Fisher exact test was used to assess the association between gender of medical and dental practitioners with the presence of obsessive compulsive disorder symptoms.

RESULTS

The mean age of the participants was 24.81 ± 2.109 years with 20.5% males and 41.1% females and 73 (50%) medical and 73 (50%) dental practitioners. Table 1 shows a statistically non-significant association between the gender of medical and dental practitioners and the symptoms of washing, obsessing, checking and neutralizing. Among the medical practitioners it was seen that the symptoms of washing (50%), obsessing (50%), checking (37.5%) and neutralizing (37.5%) were higher in males as compared to the females. Among the dental practitioners the symptom of washing (22.7%), obsessing (18.2%) and neutralizing (9.1%) were more prevalent in males while the symptom of checking was more prevalent in females as shown in Table 1.

Table 1: Association of washing, obsessing, checking and neutralizing symptoms in medical and dental practitioners with respect to gender

Symptom		Medical practitioners			Dental practitioners		
		Male	Female	p-value	Male	Female	p-value
Washing	Present	4 (50%)	2 (22.2%)	0.335	5 (22.7%)	10 (19.6%)	0.760
	Absent	4 (50%)	7 (77.8%)		17 (77.3%)	41 (80.4%)	
Obsessing	Present	4 (50%)	1 (11.1%)	0.131	4 (18.2%)	6 (11.8%)	0.476
	Absent	4 (50%)	8 (88.9%)		18 (81.8%)	45 (88.2%)	
Checking	Present	3 (37.5%)	2 (22.2%)	0.620	1 (4.5%)	4 (7.8%)	1.000
	Absent	5 (62.5%)	7 (77.8%)		21 (95.5%)	47 (92.2%)	
Neutralizing	Present	3 (37.5%)	1 (11.1%)	0.294	2 (9.1%)	4 (7.8%)	1.000
	Absent	5 (62.5%)	8 (88.9%)		20 (90.9%)	47 (92.2%)	

Table 2 shows that the symptom of ordering was more prevalent in the males in comparison to the females and its association with gender was significant. There was a non-significant association between the symptom of hoarding and doubting between male and female medical practitioners with all these symptoms being more prevalent in males in comparison to females (62.5% and 25 % respectively). The association between hoarding,

ordering and doubting was statistically non-significant with male and female dental practitioners where the prevalence of hoarding (18.2%) was higher in the males while that of ordering (15.7%) and doubting (9.8%) was higher in the females as shown in Table 2.

Table 2: Association of hoarding, ordering and doubting symptoms in medical and dental practitioners with respect to gender

Symptom		Medical practitioners			Dental practitioners		
		Male	Female	p-value	Male	Female	p-value
Hoarding	Present	5 (62.5%)	3 (33.3%)	0.347	4 (18.2%)	3 (5.9%)	0.188
	Absent	3 (37.5%)	6 (66.7%)		18 (81.8%)	48 (94.1%)	
Ordering	Present	5 (62.2%)	1 (11.1%)	0.05	2 (9.1%)	8 (15.7%)	0.713
	Absent	3 (37.5%)	8 (88.9%)		20 (90.9%)	43 (84.3%)	
Doubting	Present	2 (25%)	0 (0%)	0.206	2 (9.1%)	5 (9.8%)	1.000
	Absent	6 (75%)	9 (100%)		20 (90.4%)	46 (30.2%)	

DISCUSSION

Obsessive Compulsive Disorder (OCD) is a psychological condition that impacts a person's standard of life relatively frequently. Its association with severe degrees of societal and vocational impairment underscores the importance of further research in this important clinical domain [11]. According to reports, it ranks as such fourth greatest prevalent psychological condition in the US [12, 3]. Worldwide estimations of OCD frequency fluctuate. According to reports, the annual occurrence of OCD ranges from 1.1 to 1.8% globally and 1.2% within the United States [1]. Surveys conducted in Singapore as well as Iran, two separate Asian countries, found a lifelong frequency of 1.8% and 3%, correspondingly [14, 15]. OCD reported prevalence across South Asian investigations range from 0.28% in India to 3% in Pakistan [16, 17]. In Turkey, OCD affects 3.0% of the general population and 4.2% of university graduates [18, 19]. Regarding the male to female OCD ratios, women amongst Turkish university graduates showed significantly larger prevalence than males (3.3% vs. 2.5%) [19]. According to our study in the medical practitioners the symptoms of washing (50%), obsessing (50%), checking (37.5%) and neutralizing (37.5%) were higher in males as compared to the females. Among the dental practitioners the symptom of washing (22.7%), obsessing (18.2%) and neutralizing (9.1%) were more prevalent in males while the symptom of checking was more prevalent in females. Several psychological problems, particularly OCD, exhibit greater lifelong diagnoses percentages among women. Compared to men, women suffering anxiety and depression had a greater impact of illness [20]. A study done in Pakistan reported that OCD was much more common in the group of people who weren't aware that they had the illness as reported in the statistical data (14.5% vs. 5.9%) [21]. In comparison to figures recorded with in United States (2.3%), Spain as well as Iran (1.8%), Netherlands (0.4%), & Germany (0.39%), the

cumulative incidence of OCD was 10.1% [13, 14, 22]. A study by Asghar et al., observed the symptoms of OCD in medical and dental students with regards of gender and he proposed that with the exception of inspecting, greater female subjects in his investigation showed evidence of compulsive cleaning, checking, organizing, and hurting. However, evidence of washing urge was detected in 12% of men and 22% of women, correspondingly. A checking tendency was evident in 15% of the female individuals and 17% of the male subjects [21]. According to our study there was a non-significant association between the symptom of hoarding and doubting between male and female medical practitioners with both these symptoms being more prevalent in males in comparison to females (62.5% and 25% respectively) but significant with the symptom of ordering with the symptom being more prevalent in the males (62%) in comparison to the females (11.1%). The association between hoarding, ordering and doubting was statistically non-significant with male and female dental practitioners where the prevalence of hoarding (18.2%) was higher in the males while that of ordering (15.7%) and doubting (9.8%) was higher in the females. Likewise, it was noted that OCD manifestations differed by gender, with women reporting much higher levels of decontamination and cleaning than men [23]. This discrepancy may result from the different social obligations that males and girls in society have [24, 25]. Despite the lack of community evidence in Pakistan, incidence of 3% OCD recorded in the general population [17] and the most up-to-date recent numbers depending on hospital records show that a sizable proportion of OCD sufferers need psychiatric assistance. According to research, both men as well as women are similarly susceptible to this condition. Yet, both older and more current studies have reported varying accounts of the prevalence of males or women who appear with OCD. The fact that women are more likely to appear with OCD in Iran [14] and Greece supports this variability [26]. Although a lot of work has been done on Obsessive compulsive disorder there is not an elaborate of body literature that has evaluated the role of gender in its prevalence. Our study evaluated the role of gender in the development of this disorder with reference to the area of practice. Medical doctors and dentists both come in close contact to the body fluids like blood and saliva. The fear of cross infection and contamination can resultantly be very high in them. Our study will help unravel the role that gender has to play in the development of OCD in them and will help provide valuable means to relieve the practitioners of any distress they are facing in the process of care giving. This will eventually make the provision of health care more effective.

CONCLUSIONS

Among the medical practitioners the symptoms of

washing, obsessing, checking and neutralizing were higher in males as compared to the females. Among the dental practitioners the symptom of washing, obsessing and neutralizing were more prevalent in males while the symptom of checking was more prevalent in females. The symptoms of hoarding, ordering and doubting were more prevalent in males in comparison to female medical practitioners. Among the dental practitioners where the prevalence of hoarding was higher in the males while that of ordering and doubting was higher in the females.

Authors Contribution

Conceptualization: AA, SAH, HB

Methodology: AA, SAH, HB, NRK

Formal analysis: HB

Writing-review and editing: AA, SAH, HB, MSA, DFB, NRK

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

Source of Funding

The authors received no financial support for the research, authorship and/or publication of this article.

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