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ORIGINAL ARTICLE

Development of Obsessive-Compulsive Disorder in Medical Versus Dental Practitioners During Covid 19 Pandemic

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ABSTRACT

Objective: To identify the development of symptoms of obsessive-compulsive disorder in medical and dental practitioners during COVID 19 pandemic. A cross-sectional comparative study was conducted on 146 medical and dental practitioners. The study was conducted at College of Dentistry, Sharif Medical and Dental College, Lahore and Sardar Begum dental college, Peshawar from August 2021 to June 2022. The Obsessive-compulsive inventory scale with a Cronbach alpha value of 0.966 was used for data collection. The association of the presence of symptoms of checking (p=0.027), neutralizing (p=0.021), and hoarding (p=0.009) with the area of practice was statistically significant while it was non-significant for the symptoms of washing (p=0.332), obsessing (p=0.093), ordering (p=0.093) and doubting (p=0.099). The presence of obsessive-compulsive disorder and the area of practice was also non-significant (p=0.300). The percentage of all seven symptoms in medical practitioners was higher in comparison to the dental practitioners. It was seen that a higher percentage of medical practitioners developed obsessive-compulsive disorder in comparison to dental practitioners during the COVID 19 pandemic

Keywords: Obsessive-compulsive disorder, medical practitioners, Dental practitioners, COVID-19 pandemic

INTRODUCTION

Ever since the coronavirus emerged on the face of earth it has spread at an ever-increasing rate causing a global pandemic. The virus causes a deadly respiratory illness [1]that has infected 219 million people and caused 4.55 million deaths worldwide as of September 2021. Considerable research has provided us with valuable information about the virus, like its genetic makeup and diagnostic modalities, however, no definitive treatment is available as of yet [2].

The coronavirus came with its own set of unprecedented challenges faced by the whole human race, however, medical and dental healthcare professionals fighting at the front line are more severely affected by it. HCWs treat Covid-19 patients on a regular basis and face a high risk of acquiring the infection as they are frequently exposed to the infected individuals. Furthermore, the extended and distressing work shifts and witnessing tragedies consistently also takes a toll on their mental well-being [2]. Sense of poor patient care and increased medical errors might be another stress-inducing factor [3]. This constant state of stress leads to psychological impact and mental disorders; research has shown increasing levels of depression, anxiety, stress, and other mental health conditions, including fear, sleep deprivation, despondency, posttraumatic stress disorder somatization, and obsessive-compulsive indications amongst them [4].

Obsessive-compulsive disorder (OCD) is a mental illness characterized by obsessive thoughts and compulsive behavior Approximately 56% of individuals with OCD encounter fixations (i.e., recurrent, and tireless contemplations) related to defilement (C-OCD/C-OCS) [5], for example, the fear of getting a serious illness or of contaminating others with a virus or a bacterial disease. The prevalence of OCD is frequently co-existent with anxiety disorders stress and depression and affected individuals experience deteriorated social and occupational life often leading to an unfulfilling life [6.]

Various studies suggest an increment in OCD in individuals amid the pandemic [7], whereas some deny said correlation [8]. The growing prevalence of OCD in HCWs can be correlated with the sustained high-stress levels in these individuals. COVID-19 spread has adversely affected the mental health of the workers in the healthcare sector (HCWs), specifically those handling emergencies [9]. The impact of this unforeseen condition on the mental well-being of frontline HCW is seen in evidence obtained from a study in Wuhan City [10].

Unfortunately, despite awareness of such mental disorders emergent among the HCWs, little is being done to address the issue. No significant measures to mitigate such risks or to avoid burnout are being taken which are essential for the long-term effectiveness of the health care system.

The aim of this study was to identify the development of symptoms of obsessive-compulsive disorder in medical and dental practitioners during COVID 19 pandemic

METHODOLOGY

A cross-sectional comparative study was conducted on 146 medical and dental practitioners. The study was conducted at the College of Dentistry, Sharif Medical and Dental College, Lahore and Sardar Begum dental college, Peshawar from August 2021 to June 2022. All medical and dental practitioners irrespective of their age and gender were included in the study. Practitioners who had not practiced in the clinical or hospital setting during the period of the COVID 19 pandemic were excluded from the study. Informed consent was taken prior to data collection. The sample size was calculated to be 146 using an online sample size calculator keeping precision of 5%, the prevalence of obsessive-compulsive disorder at 10%[11] and a confidence level of 95%. The validated scale, "Obsessive-compulsive inventory scale" with a Cronbach alpha value of 0.966 was used for data collection[12]. The validity of the subscales was also established and the Cronbach alpha of the subscales washing (0.859), obsession (0.844), checking (0.889), neutralizing (0.799), hoarding (0.733), ordering (0.854) and doubting (0.681) was also determined. The OCI consisted of 42 items composing 7 subscales: Washing, Checking, Doubting, Ordering, obsessing (i.e., having obsessional thoughts), Hoarding, and Mental Neutralizing. Each item was rated on a 5-point (0 = not at all; 1 = a little; 2 = moderately; 3 = a lot; 4 = extremely) scale of symptom distress. Mean scores were calculated for each of the seven subscales, and an overall mean 'distress' score was determined (rounded to 2 decimal places). Each score is presented as a mean out of a possible maximum of '4'. A total score of 42 or more, or a mean score of 2.5 or more in any of the subscales suggested the presence of OCD[12].

SPSS 23 was used for statistical analysis. All numeric data was presented as mean and its respective standard deviation. Nominal data were presented as frequency and percentage. P values less than equal to 0.05 was considered significant. Chi-square test was used to find the association between the area of practice (medical practitioners/dental practitioners) with the

presence of obsessive-compulsive disorder and the presence of symptoms of washing, obsessions, checking, neutralizing, hoarding, and ordering and doubting.

RESULTS

A study was conducted on 146 participants with 73 (50%) medical and 73 (50%) dental practitioners. The mean age of the participants was 24.81±2.109 years with 20.5% males and 41.1% females. It was seen that there was a statistically significant association between the area of practice and the development of obsessive-compulsive symptoms of checking, neutralizing, and hoarding. It was evident that the percentage of all seven symptoms in medical practitioners was higher in comparison to the dental practitioners as shown in table 1.

Table 1: Association of development of obsessive-compulsive symptoms in medical and dental practitioners

Obsessive-compulsive symptom	Medical practitioners		Dental practitioners		P Value	Phi- Coefficient
	Present n(%)	Absent n(%)	Present n(%)	Absent n(%)		
Washing	20 (13.7%)	53 (36.3%)	15 (10.3%)	58 (39.7%)	0.332	0.080
Obsessing	18 (12.3%)	55(37.7%)	10 (6.8%)	63 (43.2%)	0.093	0.139
Checking	14(9.6%)	59 (40.4%)	5 (3.4%)	68 (46.6%)	0.027	0.183
Neutralizing	16 (11%)	57 (39%)	6 (4.1%)	67 (45.9%)	0.021	0.191
Hoarding	19 (13%)	54 (37%)	7 (4.8%)	66(45.2%)	0.009	0.215
Ordering	18 (12.3%)	55(37.7%)	10 (6.8%)	63 (43.2%)	0.093	0.139
Doubting	14 (9.6%)	59 (40.4%)	7 (4.8%)	66 (45.2%)	0.099	0.137

Table 1 also shows that the strength of association between the area of practice and the symptom of washing, obsessing, checking, neutralizing, ordering, and doubting was negligible but was weak positive with the symptom of hoarding.

Table 2: Association between the presence of obsessive-compulsive disorder with the area of practice.

Area of practice	Obsessive-compulsive disorder		P Value	Phi-Coefficient
	Present	Absent		
Medical practitioner	61 (41.8%)	12 (8.2%)	0.300	0.086
Dental practitioner	56 (38.4%)	17 (11.6%)		

Table 2 shows that the association of the presence of obsessive-compulsive disorder in medical and dental practitioners was not significant with the strength of association being negligible. It was seen that a higher percentage of medical practitioners developed obsessive-compulsive disorder in comparison to dental practitioners during the COVID 19 pandemic as shown in table 2.

DISCUSSION

Obsessive-compulsive disorder (OCD) is a long-lasting mental illness. Proclivities and compulsive behavior are brought on by it (compulsions). Numerous individuals typically focused on thoughts and repeating actions in their daily routines. However, for those who have OCD, the emotions seem to be more persistent, and thus the repeating behaviors are severe enough that they might interfere with daily living and could indeed be overlooked[13]. According to reports, OCD is indeed the fourth more prevalent mental condition throughout the globe. OCD occurrence differs by age, geography, as well as other factors. OCD's highest incidence, on the other hand, is pegged at 2.3%, with a range of 1.1 to 3.3%. OCD strikes females somewhat more than males, according to certain experts, although not all[14]. OCD typically manifests around teenage and the early twenties, with just a mean beginning age of 19–20 years. High school students and colleges are therefore a particularly good population to evaluate for OCD and its indicators. Additionally, investigations found that university graduates had twice as much OCD as most of the population did. Additionally, this age demographic seems to be more vulnerable to certain other psychiatric risks such drugs abuse and suicidal ideation, which are described as related disorders for OCD[15]. According to the demanding coursework, limited leisure hours, and the fact that graduate practitioners are coached, schooled, and expected to be somewhat little extra accurate, faultless, and compulsive, freshman medical graduates would be at an elevated potential for OCD. But at the other end, OCD can have a negative impact on social connection, overall health, educational success, and suicidal ideation. Problems that, if not identified diagnosed and treated effectively, could have a significant impact on quality of life[16].

In this study, we determine the development of OCD in medical versus dental practitioners during the COVID-19 pandemic. It was discovered that the practice area and the emergence of the OCD symptoms of checking, neutralizing, and hoarding was statistically significantly associated. It was clear that medical professionals had a larger percentage of all seven symptoms than dental professionals.

The COVID-19 outbreak is the greatest catastrophic threat the world has seen recently impacting most nations, with far more than 42 million population documented and even more than 1.150.000 confirmed deaths as of October 25. Iraq recorded the most illnesses and fatalities among some of the Arab nations, with more than 450 000 illnesses and much more than 10,000 fatalities. The COVID-19 global outbreak is anticipated to also have a negative impact on OCD patients and healthcare students in several ways, including as an overall stressful event on physical wellbeing and societies, as a result of the closing of graduate centers and the transition to eLearning, and also as a result of increased endeavors to avoid COVID-19 through hand washing with soap and hygiene practices, which could result in a fascination with contamination and obsessive washing hands. They are said to be OCD's most prevalent signs[17]. Literature has reported many studies that show the correlation of COVID-19 with the development of OCD in different people of different nations and departments. A study by Zheng Y found that Three months following restoration, 17.93% of persons in Wuhan still were suffering from OCD. OCD was linked to the profession, family status, co-occurring mental diseases, family background, and sleep deprivation[18].

The behavioral effects of contagious illness crises, like MERS and SARS, on academics have been examined in earlier reported publications. According to one such research, during the MERS and SARS epidemics, close to one-fourth of Saudi Arabia's medical practitioners showed mild - to - moderate state anxiety[19]. Similar research performed in Hong Kong indicated that young doctors had much higher levels of psychological distress compared to non-medical graduates[20].

According to our study the strength of association between the area of practice and the symptom of washing, obsessing, checking, neutralizing, ordering, and doubting was negligible but was weak positive with the symptom of hoarding. Obsessive-compulsive disorder was not significantly associated with either the presence or the intensity of the association among medical and dental professionals. During the COVID 19 epidemic, it was observed that a higher number of medical professionals (41.8%) than dentists (38.1%) got obsessive-compulsive disorder.

CONCLUSION

The association between the area of practice and the development of an obsessive-compulsive symptom of checking, neutralizing, and hoarding was significant. The percentage of all seven symptoms in medical practitioners was higher in comparison to the

dental practitioners. It was seen that a higher percentage of medical practitioners developed obsessive-compulsive disorder in comparison to dental practitioners during the COVID 19 pandemic.
Limitation: A multicenter study would have helped us unravel more findings.

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