

## Prevalence of Obsessive-Compulsive Disorder among Undergraduate Medical Students- A Cross Sectional Study from Tamil Nadu

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### ABSTRACT

Obsessive Compulsive Disorder is a disabling condition that hinders people from functioning at their full capacity. Medical profession itself is extremely stressful. When a medical student has obsessive compulsive disorder it could be very difficult for him/her to cope up with their professional life due to the hindrance inflicted by the obsessive and compulsive behavior. Very few studies have been done to establish the prevalence of obsessive compulsive disorder among medical professionals. This study aims at evaluating the prevalence of Obsessive Compulsive Disorder among medical students of a private medical college in Tamil Nadu. A descriptive cross sectional study was conducted among 150 medical students, selected by convenient sampling technique from a private medical college in Kulasekharam, Kanniyakumari over a period of 2 months. The 10-item Yale Brown OCD scale (YBOCS) questionnaire was employed in this study. Informed consent was obtained from the participants after which they were given the questionnaire. Descriptive statistical analysis was done. 65.3% (n=98) of the study population had no OCD symptoms and 34.7% of the study population had OCD symptoms, among which 28% (n=42) had mild OCD symptoms. 3.3% (n=5) had moderate OCD symptoms, 3.3% (n=3.3%) had severe OCD symptoms. 13.3% (n=20) of the male had OCD symptoms and 21.3% (n=32) of the female had OCD symptoms. This study has established the prevalence of OCD symptoms among 150 medical students of a private medical college in Tamil Nadu to be 34.7% which is alarmingly high compared to studies conducted among general population.

**Keywords:** *Compulsion, Medical, Obsession, Students.*

**O**bsessive-compulsive disorder (OCD) is a disorder in which people have recurring, unwanted thoughts, ideas or sensations (obsessions) that make them feel driven to do something repetitively (compulsions) [1]. The repetitive behaviors, such as hand washing, checking on things or cleaning, can significantly interfere with a person's daily

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activities and social interactions. Obsessions are defined as intrusive thoughts or urges that cause significant distress; the patient attempts to neutralize this distress by diverting thoughts or performing rituals. Compulsions are actions the patient feels pressured to do in response to the anxiety/distress producing obsessions or to prevent an uncomfortable situation from occurring. These compulsions may be illogical or excessive.[2]. The most common obsessions include fears of contamination, fears of aggression/harm, sexual fears, religious fears, and the need to make things “just right.” The compensatory compulsions for these obsessions include washing and cleaning, checking, reassurance-seeking, repeating, and ordering, and arranging.[3]. As OCD has the possibility of hindering one’s social growth and development, the WHO lists OCD as one of the ten most disabling conditions by financial loss and a decrease in quality of life.[4] Obsessive-compulsive disorder (OCD) is reported to be the fourth most frequent mental disorder worldwide [5,6]. The overall lifetime prevalence of OCD is estimated to be 2.3% ranging from 1.1-3.3%. The cause of OCD is still under speculation. It is considered to be due to a combination of environmental, genetic and neurobiological factors. Patients with OCD could be also affected with some other psychiatric disorder such as anxiety disorder, post-traumatic stress disorder, depression, substance use, eating disorder and learning disorders. [7,8]. Diagnosis of OCD is very tricky because it overlaps symptoms of various spectrum of psychiatric diseases. Also, people with OCD do not tend to volunteer to get checked out because of social stigma towards this condition. The onset of OCD has been found to be mainly during the adolescent age [9,10]. That makes high school students and college students a target for screening for OCD and OCD symptoms. Furthermore, this adolescent age group is more prone to other psychological issues including substance use and suicidal attempts that are explained to be associated comorbidities for OCD in various studies. [11,12]. Undergraduate Medical students are at an increased risk for OCD, due to the stressful circumstances compared to other professional courses and the students are expected to be precise and accurate in their skills which further pushes them towards the obsessive-compulsive spectrum. It is not wrong for a student to want to be perfect in their academics but when this passion to be perfect turns into obsession and compulsion, then it can adversely affect academic performance, their general well-being, social interaction, and interpersonal skills. [13,14,15]. The most widely accepted tool to screen for OCD is the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS). The Y-BOCS rates on a scale from 0 to 40 (40 being the most severe of symptomatology). The mainstay treatment of obsessive-compulsive disorder (OCD) treatment is SSRIs and cognitive behavioral therapy (CBT) with exposure and response prevention (ERP) [18]. Medical profession is one of the most critical jobs that requires utmost attention by the healthcare professionals in treating the patients. Obsessive compulsive disorder, when present among medical professionals can hinder their work by rendering them incompetent of serving the people because when they are taken over by their obsessions and compulsions the patients are the ones that tend to suffer. Assessing the prevalence of OCD among medical students will help us to draw attention to the fact of diagnosing healthcare professionals who are affected by OCD and hence appropriate treatment can be started which will not only help the healthcare professionals overcome their problem but will also prevent any of their patients from being affected by the obsessive compulsive behavior of the health care professionals. Therefore, in this study we shall assess the prevalence of Obsessive Compulsive Disorder (OCD) among the undergraduate medical students of a private medical college in Kanniyakumari.

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**METHODOLOGY**

An analytical cross sectional study was conducted among 150 medical students, selected by convenient sampling technique from a private medical college in Kulasekharam, Kanniyakumari over a period of 2 months. The 10-item semi-structured Yale Brown OCD scale (YBOCS) questionnaire was employed in this study. Informed consent was obtained from the participants after which they were given the questionnaire. No incomplete questionnaires were obtained. The data was then entered into an excel sheet and then descriptive statistical analysis was done using SPSS software version 22.0. The YBOCS questionnaire and the scoring system of the YBOCS questionnaire has been depicted in FIGURE 1 and FIGURE 2 respectively.

**FIGURE-1**

**Obsessive-Compulsive Test - Yale Brown OCD Scale YBOCS**

	(0)	(1)	(2)	(3)	(4)
<b>Obsessions</b> are frequent, unwelcome, and intrusive thoughts.					
1. How much time do you spend on obsessive thoughts?	None	0-1 hrs/day	1-3 hrs/day	3-8 hrs/day	More than 8 hrs/day
2. How much do your obsessive thoughts interfere with your personal, social, or work life?	None	Mild	Definite but manageable	Substantial interference	Severe
3. How much do your obsessive thoughts distress you?	None	Little	Moderate but manageable	Severe	Nearly constant, Disabling
4. How hard do you try to resist your obsessions?	Always try	Try much of the time	Try some of the time	Rarely try. Often yield	Never try. Completely yield
5. How much control do you have over your obsessive thoughts?	Complete control	Much control	Some control	Little control	No control
<b>Compulsions</b> are repetitive behaviors or mental acts that you have a strong urge to repeat that are aimed at reducing your anxiety or preventing some dreaded event.					
6. How much time do you spend performing compulsive behaviors?	None	0-1 hrs/day	1-3 hrs/day	3-8 hrs/day	More than 8 hrs/day
7. How much do your compulsive behaviors interfere with your personal, social, or work life?	None	Mild	Definite but manageable	Substantial interference	Severe
8. How anxious would you feel if you were prevented from performing your compulsive behaviors?	None	Little	Moderate but manageable	Severe	Nearly constant, Disabling
9. How hard do you try to resist your compulsive behaviors?	Always try	Try much of the time	Try some of the time	Rarely try. Often yield	Never try. Completely yield
10. How much control do you have over your compulsive behaviors?	Complete control	Much control	Some control	Little control	No control

**FIGURE 2:**

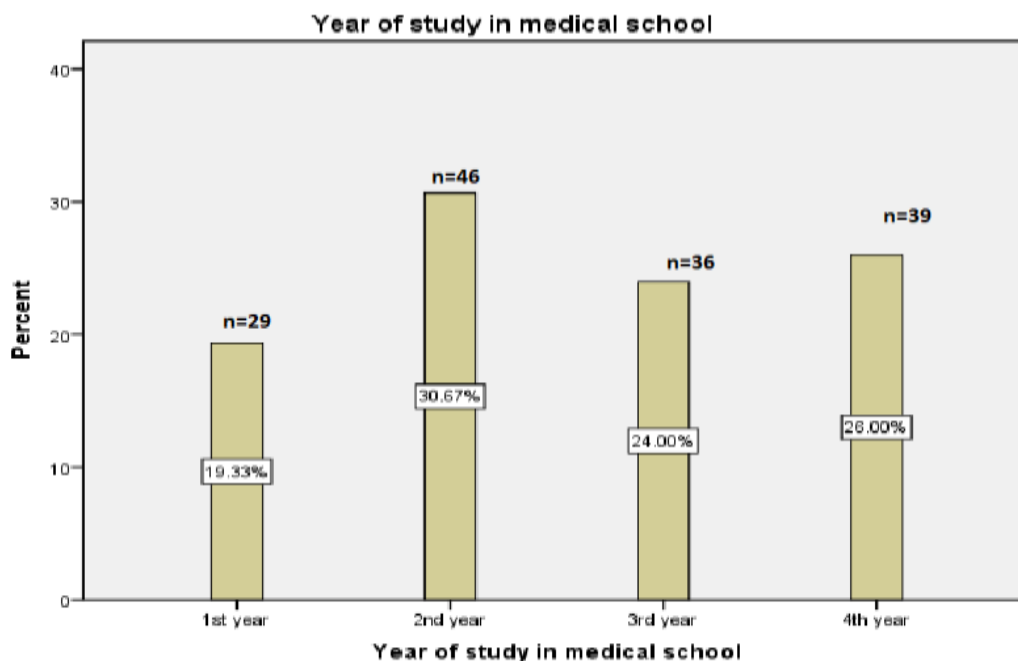
**YBOCS scoring chart :**

- 8-15 = Mild OCD
- 16-23 = Moderate OCD
- 24-31 = Severe OCD
- 32-40 = Extreme OCD

## RESULTS

The age of the study population ranged from 18 to 25 (mean = 20.69, SD = 1.850). 40% (60) of the study population were males and 60% (90) of the study population were females. The year-wise distribution of the study population is explained in FIGURE 3.

FIGURE 3



64.7% (97) of the study population thought they didn't have any symptoms of obsessive compulsive disorder whereas 35.3% (53) of them thought that they had symptoms of OCD. Among the study population, the minimum individual YBOCS score was 0 (No OCD) and the maximum individual YBOCS score was 28 (Severe OCD). {Mean YBOCS score = 7.49, SD = 5.012}. According to the YBOCS score, 65.3% (n=98) of the study population had no OCD symptoms and 34.7% of the study population had OCD symptoms, among which 28% (n=42) had mild OCD symptoms, 3.3% (n=5) had moderate OCD symptoms, 3.3% (n=3.3%) had severe OCD symptoms and 0% (n=0) had extreme OCD symptoms. On doing bivariate analysis, 13.3% (n=20) of the male had OCD symptoms and 21.3% (n=32) of the female had OCD symptoms.

Out of the 20 male population who had OCD symptoms 80% (n=16) of them had mild OCD symptoms, 5% (n=1) had moderate OCD symptoms and 15% (n=3) had severe OCD symptoms. Out of the 32 female population who had OCD symptoms, 81.25% (n=26) had mild OCD symptoms, 12.5% (n=4) had moderate OCD symptoms and 6.25% (n=2) had severe OCD symptoms.

Among the 97 participants who thought that they didn't have OCD symptoms, 90% (n=88) of them didn't have any OCD symptoms ( $p < 0.001$ ) and 9.2% (n=9) of them had OCD symptoms, however all these 9 participants had mild OCD symptoms ( $p < 0.001$ ).

Among the 53 participants who thought they had OCD, 72.8% (n=43) of them had OCD symptoms ( $p < 0.001$ ) and 18.8% (n=10) of them didn't have any OCD symptoms. Out of

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these 43 participants who thought they had OCD, 76.6% (n=33) had mild OCD, 11.6% (n=5) had moderate OCD ( $p<0.005$ ) and 11.6% (n=5) of them had severe OCD ( $p<0.005$ ).

### DISCUSSION

Studies have been conducted to assess the prevalence of OCD among general population. One of the studies conducted by Mohammed Rezza Mohammadi et al in Iran found the prevalence of OCD among general population to be 2.1%. However in our study we have found that the prevalence of OCD among medical students to be 34.7% which indicated that medical students are more prone to have OCD symptoms. This is an indicator that the strenuous life of medical students could be a risk factor for the high prevalence of OCD among medical students. Studies have shown that the stress experienced by a medical student has lead to development of OCD (14). Another study has shown that OCD, depression, dementia, alcohol abuse and schizophrenia were the recognized mental disorders in medical students (15). In our study we have arrived at the result that 9.2% of the medical students who had OCD symptoms didn't recognize their obsessive-compulsive behavior. Therefore students should be educated about OCD symptoms as well as other mental health problems faced by medical students so that they can recognize them at the earliest and get treated accordingly. A study that compared the differences in obsessive symptoms between medical students, law students and a control population has found that Medical students were more likely than law students to suffer from obsessive symptoms of cleanliness and conscientiousness (16). Another study showed that OCD was among the top three mental health disorders faced by medical students and that the reason for this include academic pressure, professional satisfaction level and family environment (17). In our study we have found that the prevalence of OCD is higher among medical students as compared to the general population. Hence further research should be done to evaluate the stressors that lead this and necessary steps should be taken to decrease the burden of obsessive compulsive disorder among medical students so that they can serve the patients with better efficacy and lesser mental pressure.

### CONCLUSION

It is no doubt that medical students have the pressure to be perfect in their studies and this has a major impact on their daily life. Being in a constant state of stress, medical students are more to prone to suffer from obsessive compulsive disorder. Being healthy not only includes the physical health but also includes mental health. This study has found out the prevalence of OCD among undergraduate medical students of a private medical college to be 34.7% which is higher compared the prevalence of OCD among general population. Therefore, further research has to be carried out to identify the stressors causing OCD symptoms among medical students.

### *Suggestion*

The same study can be carried out as a multi-centric study among medical students from different medical colleges across the country with a vast sample size to arrive at better and precise results.

### REFERENCES

- [1] American Psychiatric Association, Obsessive-Compulsive Disorder (OCD), last updated July 2017. Accessed at 22-10-2020. Available at: <https://www.psychiatry.org/patients-families/ocd/what-is-obsessive-compulsive-disorder>

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- [2] Fenske JN, Petersen K. Obsessive-Compulsive Disorder: Diagnosis and Management. *Am Fam Physician*. 2015 Nov 15;92(10):896-903.
- [3] Krebs G, Heyman I. Obsessive-compulsive disorder in children and adolescents. *Arch Dis Child*. 2015 May;100(5):495-9.
- [4] Veale D, Roberts A. Obsessive-compulsive disorder. *BMJ*. 2014 Apr 07;348:g2183.
- [5] Asghar MA, Rehman AA, Shafiq Y, Siddiq A, Zehravi M, Khan K, Asghar MA, Abedin S (2020) Relationship of obsessive-compulsive disorders with religion and psychosocial attitude among local medical college students of Karachi: an epidemiological study. *JPM* 70:1563
- [6] Ansari E, Mishra S, Tripathi A, Kar SK, Dalal PK (2020) Cross-sectional study of internalised stigma and medication adherence in patients with obsessive compulsive disorder. *Gen Psychiatr* 33(2):e100180
- [7] Jaisoorya TS, Reddy YJ, Nair BS, Rani A, Menon PG, Revamma M, Jeevan CR, Radhakrishnan KS, Jose V, Thennarasu K (2017) Prevalence and correlates of obsessive-compulsive disorder and subthreshold obsessive-compulsive disorder among college students in Kerala, India. *Indian J Psychiatr*. 59(1):56
- [8] Huz I, Nyer M, Dickson C, Farabaugh A, Alpert J, Fava M, Baer L (2016) Obsessive-compulsive symptoms as a risk factor for suicidality in US college students. *J Adolesc Health*. 58(4):481–484
- [9] Safaralizadeh F, Bagheriyeh F (2014) The prevalence obsessive-compulsive disorder in students in Khoy University in 2013. *IJPN*. 2(2):13–21Return to ref 14 in article
- [10] Torres AR, Fontenelle LF, Shavitt RG, Hoexter MQ, Pittenger CH, Miguel EC (2017) Epidemiology, comorbidity, and burden of OCD. In *Obsessive-compulsive disorder: phenomenology, pathophysiology, and treatment*. Oxford University Press, Oxford
- [11] Sulkowski ML, Mariaskin A, Storch EA (2011) Obsessive-compulsive spectrum disorder symptoms in college students. *Journal of American College Health*. 59(5):342–348
- [12] Lei X, Chen C, He Q, Chen C, Moyzis RK, Xue G, Chen X, Cao Z, Li J, Li H, Zhu B (2012) Sex determines which section of the SLC6A4 gene is linked to obsessive-compulsive symptoms in normal Chinese college students. *J Psychiatric Res*. 46(9):1153–1160
- [13] Torres AR, Cruz BL, Vicentini HC, Lima MC, Ramos-Cerqueira AT (2016) Obsessive-compulsive symptoms in medical students: prevalence, severity, and correlates. *Academic Psychiatry*. 40(1):46–54
- [14] Huang J, Nigatu YT, Smail-Crevier R, Zhang X, Wang J (2018) Interventions for common mental health problems among university and college students: a systematic review and meta-analysis of randomized controlled trials. *J Psychiatric Res*. 107:1
- [15] El-Gilany AH, Amro M, Eladawi N, Khalil M (2019) Mental health status of medical students: a single faculty study in Egypt. *J Nervous Ment Dis*. 207(5):348–354
- [16] Harries MD, Kim SW, Grant JE. A comparative study of obsessionality in medical students, law students, and controls. *Psychiatric Quarterly*. 2017 Sep;88(3):603-10.
- [17] Cuttilan AN, Sayampanathan AA, Ho RC. Mental health issues amongst medical students in Asia: a systematic review [2000–2015]. *Annals of translational medicine*. 2016 Feb; 4(4).

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***Conflict of Interest***

The author declared no conflict of interest.

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