



## A Correlational study to assess the relationship between obsessive compulsive disorder and academic stress among the school students, Moradabad.

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### ABSTRACT

**Introduction:** “OCD is association with a wide range of functional impairment and has a significant impact on social and working life” and “Academic stress involves mental distress regarding anticipated failure or even fear of the possibility of academic failure.” **Objective:** The present study aimed to assess the relationship between obsessive-compulsive disorder and academic stress among 9<sup>th</sup> to 12<sup>th</sup> class female students. **Method:** A self-administered structured questionnaire was used including structure questionnaire on demographic characteristics. Rating scale for Obsessive Compulsive Disorder & Academic Stress scale was used to select 385 girl students. **Result:** The result of this study found that out of 385 students 20.78% severe, 63.64% moderate, 15.58% mild scores of obsessive compulsive behavior and out of 385 students 20.26% severe, 60% moderate, 19.74% mild scores of academic stress. The coefficient of correlation between obsessive compulsion disorder and academic stress was 2.319. The coefficient of correlation value was less than the table value 05.99 at 0.05 level significance. It shows that there was no significant relationship between obsession compulsion disorder and academic stress.

**Key words:** School Students, Obsessive Compulsive Disorder, Academic Stress.

### Introduction

Obsessive-compulsive disorder (OCD) was considered a relatively rare disorder until about two decades ago. Since then, considerable advance has been made in understanding the various aspects of OCD that include epidemiology, clinical features, comorbidity, biology and treatment. In the last one decade, there has also been interest in a group of related disorders called obsessive compulsive spectrum disorders.<sup>1</sup> Woolcock and Campbell (2005) found that college students who reported higher levels of compulsions repetitively recheck, cross out, and rewrite answers which may lead to decreased work production, and poor grades. Malakar and

Basu, (2016) found that adolescent students with subclinical obsessive compulsive symptoms showed reduced cognitive processes, poorer academic achievement and poorer intelligence-achievement compared to their counterparts. Stress can be defined as ‘any challenge to homeostasis’, or to the body’s internal sense of balance.<sup>2</sup> The general characteristics of a person in distress are: being over-aroused; tense or unable to relax; touchy, easily upset or irritable; easily startled or fidgety, and demonstrating intolerance of any interruption or delay. Excessive stress results in an increased prevalence of psychological problems like depression, anxiety, substance abuse and suicide ideation.<sup>2, 3</sup> Researchers such as Al-Dabal *et al.*, Abu-Ghazaleh *et al.* and Behere *et al.* have studied the importance of various academic factors in the development of stress.<sup>4, 5, 6</sup> Academic factors were one of the most important stressors in the participants of the current study, and these could be attributed to the development of stress and could also determine the severity of stress.<sup>7</sup> Researcher [Morgado.P](#), et al., have studied that OCD patients report significantly higher levels of perceived stress than healthy controls, and that these are accompanied with higher serum cortisol levels. These findings support the hypothesis that deregulated stress-response mechanisms are of relevance to this disorder. In this regard, it is important to note that, in our study, self-reported perceived stress levels also correlated positively with global severity of OCD, further strengthening the relevance of our data.<sup>8</sup> In light of such controversy, we thought of interest to find out the relationship between OCD and other characteristics of stress as academic stress

## Method

### Participants

Participants were 385 school students aged between 13 and 18 years (mean age= 15.5 years, SD = 1.87). Based on the number of students in each school, stratified sampling method was used to select the participants for this study from schools at the Moradabad. These schools are the schools of Uttar Pradesh Board (34.3%), the Schools of CBSE Board (36.2%), and the Schools of Other Board (29.5%). Further, the vast majority of the participants were studying (28.57%) 10<sup>th</sup> class, (25.97%) 9<sup>th</sup> class, (24.94%) 11<sup>th</sup> class and (20.52 %) 12<sup>th</sup> class.

### Material and procedure

After written informed consent was obtained, a self-structured questionnaire was used to collect the data of the recruited students conveniently. Participants were requested to respond to a set of two questionnaires. The questionnaires were distributed to students in classes and they were asked to return them after responding to the questions. 440 copies were distributed, and students returned 402 of which 17 were incomplete. The purpose of the study and instructions on how to answer the questions were clearly stated. It was made clear that participation in this study was voluntary and students could withdraw from the study at any stage. Further, they were informed that the information they provide will be treated with high confidentiality and will only be used for research purposes. The self-structured questionnaire was administered. This questionnaire is composed three section, A-Demographic Variable, B- Rating Scale for Obsessive Compulsive Disorder of 15 items. The items are rated on a 3-point scale ranging from 0 (never) to 2 (always). C- Rating Scale for Academic Stress of 15 Items. The items are rated on a 3-point scale ranging from 0 (never) to 2 (always). The questionnaire was translated into Hindi language by three qualified translators.

### Organization of the data

Self-structured questionnaire was used to assess the relationship between obsessive-compulsive disorder and Academic Stress among 385 students. The data obtained were analyzed, organized according to the objectives and have been delineated under the following sections:-

**Section-I:** Demographic profile of the study subjects. Frequency and percentage computation were done to describe the sample characteristics.

**Section-II:** Finding related to assess the obsession and compulsion disorder among 9<sup>th</sup> to 12<sup>th</sup> class student. The mean and standard deviation were computed from the obtained OCD score.

**Section-III:** Frequency and percentage distribution of the subject according to criteria measure of obsessive-compulsive disorder score.

**Section-IV:** Finding related to assess the Academic stress among 9<sup>th</sup> to 12<sup>th</sup> class female student. The mean and standard deviation were computed from the obtained Academic stress score.

**Section-V:** Frequency and percentage distribution of the subject according to criteria measure of Academic stress score.

**Section-VI:** Finding related to correlation between the obsessive-compulsive disorder and academic stress.

### SECTION-I: DEMOGRAPHIC PROFILE OF THE STUDY SUBJECT

The section describes the characteristics of the study subjects. Frequency and percentage computation were done to describe the sample characteristics. A summary of the sample characteristics is presented in table -1

**TABLE-1**

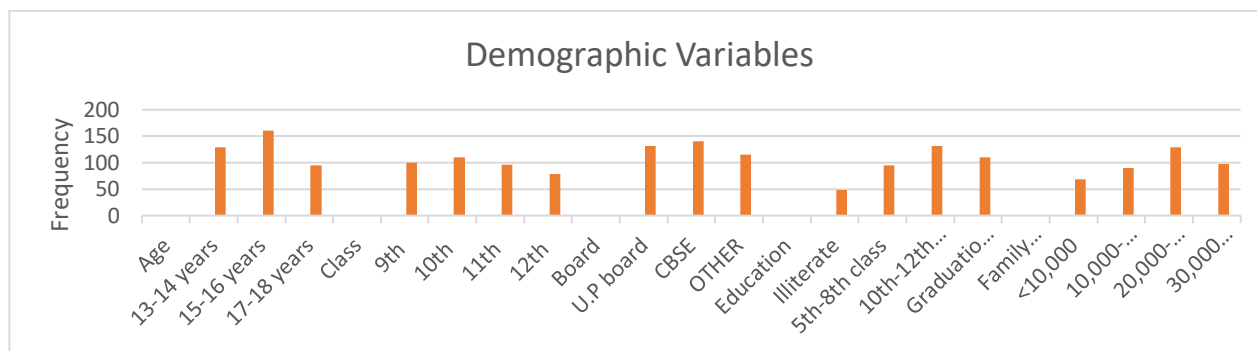
**Frequency, Percentage distribution of students by their demographic characteristics (Age, Gender, Class, Education of parent's, family income)**

**n= 385**

	Demographic Performa	Percentage (%)	Frequency(f)
<b>Age</b>	13-14 years	33.5%	129
	15-16 years	41.8%	161
	17-18 years	24.7%	95
	13-14 years	33.5%	129
<b>Class</b>	9 <sup>th</sup>	25.97%	100
	10 <sup>th</sup>	28.57%	110
	11 <sup>th</sup>	24.94%	96
	12 <sup>th</sup>	20.52%	79
<b>Medium</b>	U.P board	34.3%	132
	CBSE	36.2%	140
	OTHER	29.5%	115
<b>Education of Parents</b>	Illiterate	12.5%	48
	5th-8th class	24.7%	95
	10th-12th class	34.3%	132
	Graduation and above	28.5%	110
<b>Family Income</b>	<10,000	17.7%	68
	10,000-20,000	23.4%	90
	20,000-30,000	33.5%	129
	30,000 and above	25.4%	98

The above study shows that in 385 students, 33.5% were 13-14yrs, 41.8% were 15-16yrs, 24.7% 17-18yrs age of group. Out of 385 students 25.97% were studying in 9<sup>th</sup> class, 28.57% were 10<sup>th</sup> class, 24.94% were 11<sup>th</sup> class, and 20.52 % were 12<sup>th</sup> class. Out of 385 students 34.3% were studying in U.P board, 36.2% students were studying in CBSE board and 29.5% were studying in other board. The data shows that 12.5% parents were illiterate, 24.7% parents were educated 5<sup>th</sup>-8<sup>th</sup> class, 34.3% parents were educated 10<sup>th</sup>-12<sup>th</sup> class, 28.5% parents were graduate and above. By the collected data we came to know that out of 385 students 17.7% belongs to <10000 family monthly income, 23.4% belongs to 10,000-20,000 family monthly income, 33.5% belongs to 20,000-30,000 family monthly income and 25.4% belongs to 30,000 and above family income.

**FIGURE-01**



**FIGURE 1: BAR DIAGRAM DEPICTING FREQUENCY DISTRIBUTION OF DEMOGRAPHIC VARIABLES.**

**SECTION-II: FINDING RELATED TO ASSESS THE OBSESSION AND COMPULSION DISORDER AMONG 9<sup>TH</sup> TO 12<sup>TH</sup> CLASS STUDENT. THE MEAN AND STANDARD DEVIATION WERE COMPUTED FROM THE OBTAINED OBESSEIVE COMPULSIVE DISORDER SCORE**

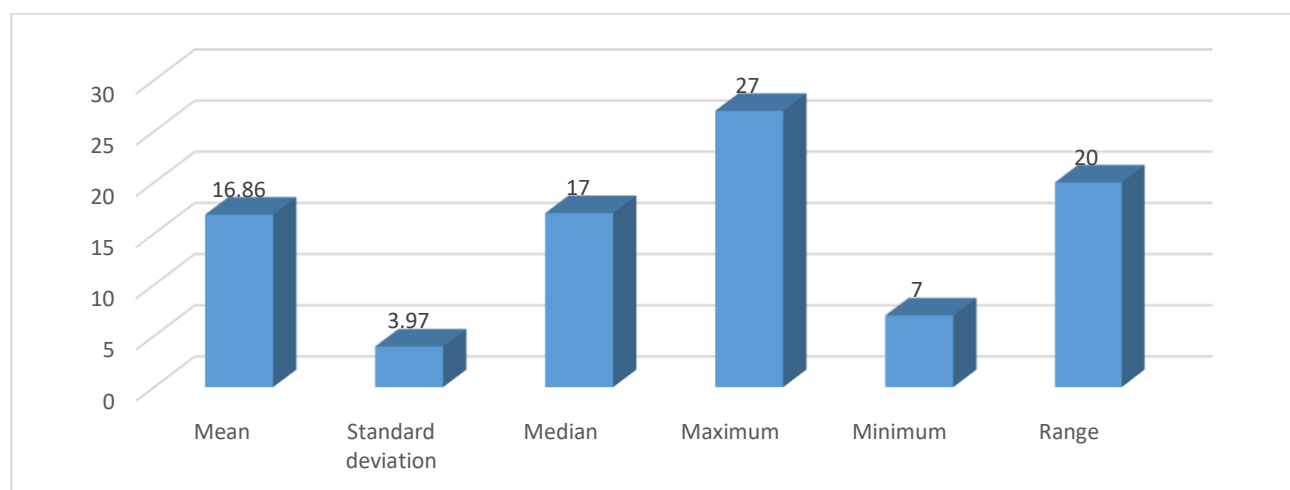
The section looks at the analysis, description and interpretation of the data collected to assess the obsessive compulsive disorder. From the obtained level of obsessive compulsive disorder scores mean and standard deviation.

**TABLE -02**

Descriptive Statistics	Mean	SD	Media n	Max	Min	Range
OCD Score	16.86	3.97	17	27	7	20

Maximum= 30 Minimum= 0

The table 2 shows that the range of obtained scores for the subjects was from. The computed mean 16.86 and standard deviation 3.97.

**FIGURE-02**

**FIGURE 02: BAR DIAGRAM DEPICTING THE DESCRIPTIVE STATISTIC MEAN AND STANDARD DEVIATION VALUE OF OBSESSIVE COMPULSIVE DISORDER SCORE.**

### SECTION-III: FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE SUBJECT ACCORDING TO CRITERIA MEASURE OF OBSESSIVE-COMPULSIVE DISORDER SCORE

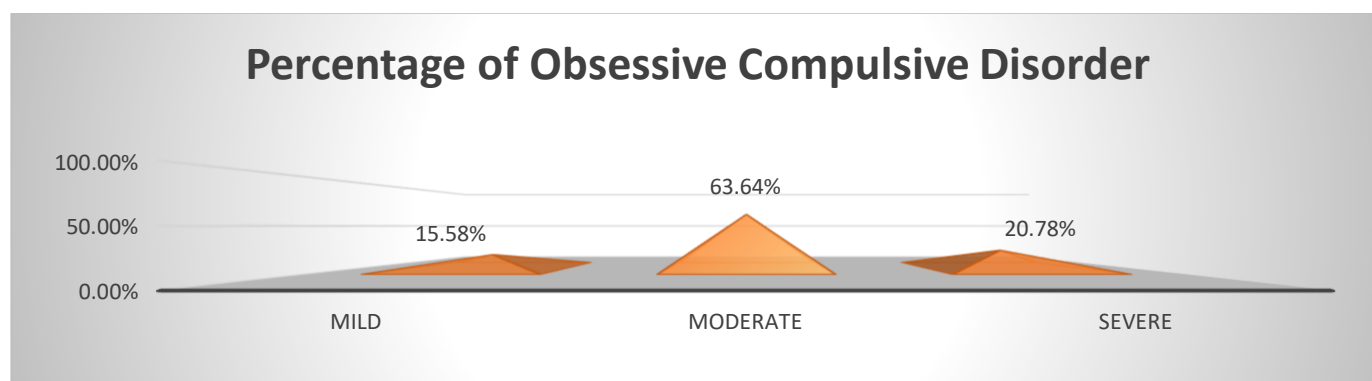
The section describe the obsessive compulsive disorder among students. Frequency and percentage computation were done to describe the level of obsessive compulsive disorder among students.

**TABLE -03**

n=385

CRITERIA MEASURE OF OBSESSIVE-COMPULSIVE DISORDER SCORE		
Category Score	Percentage	Frequency
SEVERE >Mean+SD	20.78%	80
MODERATE Mean-SD to Mean +SD	63.64%	245
MILD <Mean-SD	15.58%	60

The data in table 03 indicate that out 385 subjects 20.78% has severe, 63.64% has moderate and 15.58 % has mild obsessive compulsive disorder.

**FIGURE-03**

**FIGURE 03: BAR DIAGRAM SHOWING LEVEL OF SCORES IN OBSESSIVE-COMPULSIVE DISORDER AMONG STUDENTS.**

**SECTION-IV: FINDING RELATED TO ASSESS THE ACADEMIC STRESS AMONG SCHOOL STUDENTS. THE MEAN AND STANDARD DEVIATION WERE COMPUTED FROM THE OBTAINED ACADEMIC STRESS SCORE.**

The section looks at the analysis, description and interpretation of the data collected to assess the academic stress. From the obtained scores mean and standard deviation.

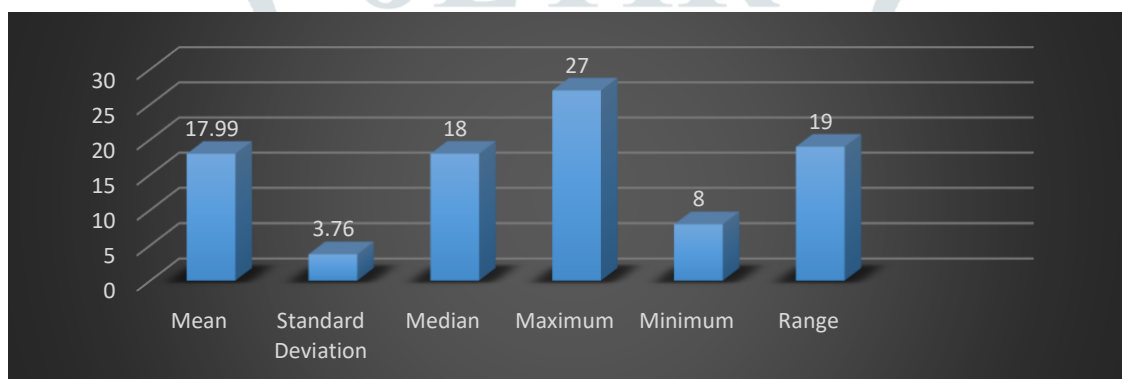
**TABLE-04**

Descriptive Statistics	Mean	SD	Median	Max	Min	Range
Academic Stress Score	17.99	3.79	18	27	08	19

**Maximum=30, Minimum=0**

The table 04 shows that the range of obtained scores for the subjects was from. The computed mean 17.99 and standard deviation 3.79.

**FIGURE-04**



**FIGURE 04: BAR DIAGRAM DEPICTING THE DESCRIPTIVE STATISTIC MEAN AND STANDARD DEVIATION VALUE OF ACADEMIC SCORE.**

**SECTION-V: FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE SUBJECT ACCORDING TO CRITERIA MEASURE OF ACADEMIC STRESS SCORE.**

The section describe the obsessive compulsive disorder among students. Frequency and percentage computation were done to describe the level of academic stress among students.

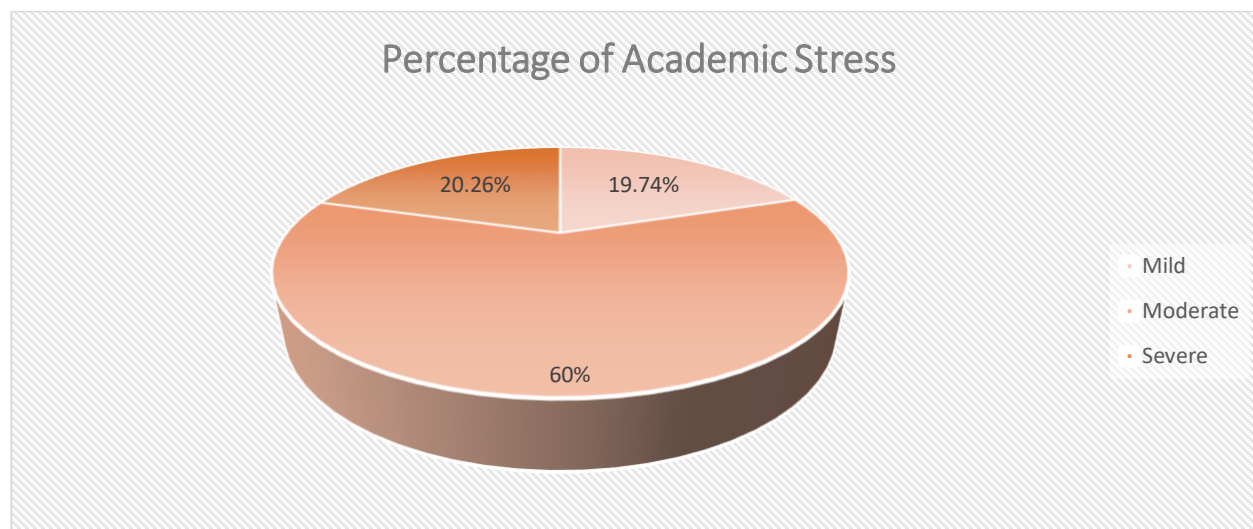
**TABLE -05**

**n=385**

CRITERIA MEASURE OF ACADEMIC STRESS SCORE		
Category Score	Percentage	Frequency
SEVERE >Mean+SD	20.26%	78
MODERATE Mean-SD to Mean +SD	60%	231
Mild <Mean-SD	19.74%	76

The data in table 05 indicate that out 385 subjects 20.26% has severe, 60% has moderate and 19.74 % has mild academic stress.

**FIGURE-05**



**FIGURE 05: PIE DIAGRAM SHOWING LEVEL OF SCORES IN ACADEMIC STRESS AMONG STUDENTS.**

#### **SECTION-VI: FINDING RELATED TO CORRELATION BETWEEN THE OBSESSIVE-COMPULSIVE DISORDER AND ACADEMIC STRESS.**

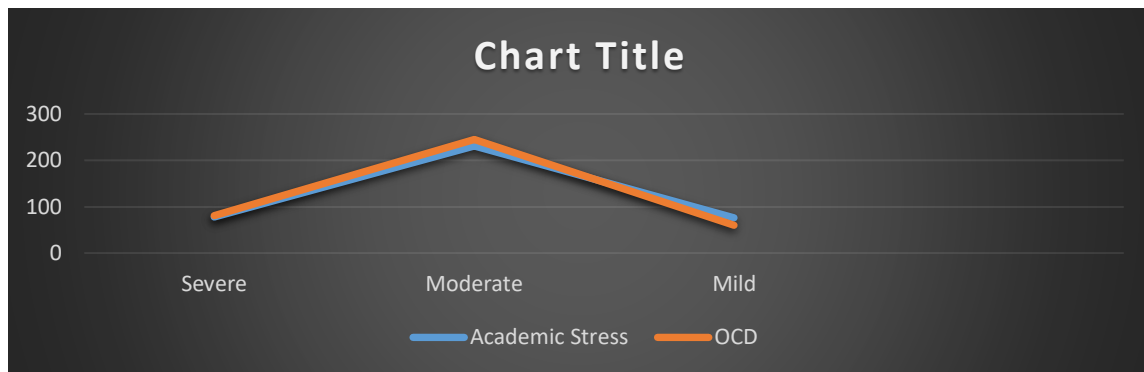
The section deals with assessment of correlation between obsession compulsion disorder and academic stress. For obtaining the relationship between obsession compulsion disorder and academic stress, coefficient of correlation was calculated as shown in table 06.

**TABLE- VI**

CHII-SQUARE	PAIR 1	
	OCD SCORE	ACADEMIC STRESS SCORE
Mean	16.86	17.99
SD	3.97	3.76
n	385	
Correlation	2.319	
Table Value	5.99	
df	2	
Result	Not Significant	

The data presented in table 06 show that the coefficient of correlation between obsession compulsion disorder and academic stress was 2.319. The coefficient of correlation value was less than the table value 5.99 at 0.05 level. It shows that there was no significant relationship between obsession compulsion disorder and academic stress.

FIGURE -6



**FIGURE 06: LINE DIAGRAM SHOWING COEFFICIENT CORRELATION BETWEEN OBSESSIVE COMPULSIVE DISORDER AND ACADEMIC STRESS AMONG STUDENTS**

## Discussion

The above study shows that in 385 students, 33.5% were 13-14yrs, 41.8% were 15-16yrs, 24.7% 17-18yrs age of group. Out of 385 students 25.97% were studying in 9<sup>th</sup> class, 28.57% were 10<sup>th</sup> class, 24.94% were 11<sup>th</sup> class, and 20.52 % were 12<sup>th</sup> class. Out of 385 students 34.3% were studying in U.P board, 36.2% students were studying in CBSE board and 29.5% were studying in other board. The data shows that 12.5% parents were illiterate, 24.7% parents were educated 5<sup>th</sup>-8<sup>th</sup> class, 34.3% parents were educated 10<sup>th</sup> -12<sup>th</sup> class, 28.5% parents were graduate and above. By the collected data we came to know that out of 385 students 17.7% belongs to <10000 family monthly income, 23.4% belongs to 10,000-20,000 family monthly income, 33.5% belongs to 20,000-30,000 family monthly income and 25.4% belongs to 30,000 and above family income. The computed mean 16.86 and standard deviation 3.97 .Out 385 subjects 20.78% has severe, 63.64% has moderate and 15.58 % has mild obsessive compulsive disorder. The computed mean 17.99 and standard deviation 3.79 of academic stress. Out 385 subjects 20.26% has severe, 60% has moderate and 19.74 % has mild academic stress. The coefficient of correlation between obsession compulsion disorder and academic stress was 2.319. The coefficient of correlation value was less than the table value 5.99 at 0.05 level. It shows that there was no significant relationship between obsession compulsion disorder and academic stress.

## Limitations

1. This study was limited only for 9<sup>th</sup> to 12<sup>th</sup> class students.
2. The study was conducted on a small sample of students. The finding cannot be generalized for students in other universities degree programs and general population.

## Recommendation

- A comparative study can be done to understand the gender difference between obsessive compulsive disorder and academic stress.
- A same study can be replicated on a wider sample to help validate and generalized the finding to the population unlike the present study which was conduct on a small sample size thus limiting generalization.



## Conclusion

Revealing no relationship between compulsions and academic performance, the results of the current study show that obsessive-compulsive disorder may only be problematic if it interferes with daily life as well as academic competency.

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Nil.

## Conflicts of interest

There are no conflicts of interest.

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