



International Association of  
Scientists  
www.iasnetedu.com

Available online at [www.jobiost.com](http://www.jobiost.com)

**IJBLS 2022; 1(3):172-177**



International Journal of  
BioLife Sciences

Original paper

## Evaluation of Depression and Obsessive Compulsive Disorder in University Students During the COVID-19 Pandemic

Azin Gilandoust<sup>1\*</sup>, Fatemeh Amini Khodashahri<sup>2</sup>

<sup>1</sup> Department of Clinical Psychology, Faculty of Medical Science, Hamedan Branch, Islamic Azad University, Hamedan, Iran

<sup>2</sup> Department of Clinical Psychology, Faculty of Medical Science, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran

*Received: 12 September 2022*

*Revised: 17 September 2022*

*Accepted: 28 September 2022*

### Abstract

**Background and aim:** Although many studies suggest that the covid-19 pandemic has an effect on students mental disorders, the results in this case are challenging.

**Materials and methods:** The research sample was a total of 200 students selected by random sampling and divided into two groups: 100 depressed and 100 obsessed, then the Self-Assessment Depression Symptom Scale (QIDS-SR) questionnaire and the Maudsley Obsessive-Compulsive Questionnaire (MOCI) It was given to them. Data were presented through descriptive statistics.

**Results:** The results of this study showed that depression and obsession in students increased significantly during the covid-19 pandemic. The alpha level was less than 0.05.

**Conclusion:** Overall, the results of this research show that the level of depression and obsession increased during the covid-19 pandemic and the findings of this research can be important in the pre-management of mental disorders.

**Keywords:** *Covid-19 pandemic, Depression, Obsessive compulsive*

---

\***Corresponding author:** Azin Gilandoust, Department of Clinical Psychology, Faculty of Medical Science, Hamedan Branch, Islamic Azad University, Hamedan, Iran.

**E-mail address:** [gilandoustazin@gmail.com](mailto:gilandoustazin@gmail.com)

## **Introduction**

In 2019, a new corona virus with the ability to transmit between humans appeared in China and caused unusual respiratory diseases in people, which today we call SARS-CoV-2, the disease caused in people caused by this virus, we called Covid-19 [1]. The high prevalence of covid-19 and the high number of deaths caused by this virus caused the World Health Organization to declare this disease an epidemic on March 12, 2020 [2]. In most cases, Covid-19 causes mild illness in people, but in some people with underlying diseases and the elderly, it can cause severe illness [3]. The epidemic of Covid-19 caused many damages and losses in the human, economic, social and health fields throughout the countries of the world [4]. Governments and health authorities have focused on prevention such as social distancing and hand washing to prevent the spread of the virus [5]. Lock-down has negative effects on people's mental health, such as increased loneliness, domestic violence, financial and job insecurity [6]. Covid-19 causes the closure of educational activities across the country, so online education is used to prevent the reduction of this virus [7]. The pandemic has had negative effects on the mental health of students around the world [8]. Reports indicate that mental illnesses such as depression have been very common among college students during the Covid-19 pandemic [9]. Depression is considered as a psychiatric disease worldwide, which affects more than 300 million people, equivalent to 4.4% of the world's population. The symptoms of depression include loss of interest and energy, feelings of guilt, feelings of failure, isolation, and concentration problems. self-hatred and loss of appetite, suicidal thoughts, insomnia and hypersomnia [10], [11]. Also, studies have shown that the epidemic has aggravated OCD [12]. Obsessive-compulsive disorder causes disturbing and unwanted thoughts that make a person anxious, and the person is forced to perform compulsive behaviors to reduce anxiety. Obsessions and compulsions are often subject-based and related, although the behaviors and social strategies in the short term reduce the anxiety associated with obsessions, but in the long term, they maintain the problem, which leads to significant consequences if left untreated [13]. Research findings on Bangladeshi students showed that students experienced a high level of depression during the epidemic [14]. The prevalence of depression during lockdown among Greek university students was very worrying [15]. Also, since the mental health of students is important, the amount of OCD symptoms among students has increased significantly during the epidemic [16]. The findings of another research showed the average level of obsession among nursing students [17]. Studies conducted on medical students indicate that depression among Iranian students during the Covid-19 pandemic did not differ significantly [18]. Although many studies have been conducted regarding the level of mental disorders in different countries, but limited studies have been conducted on the level of depression and obsession among students during the corona pandemic. Based on this, the present study has been conducted on the level of depression and obsession among students during the corona pandemic.

## **Material and Methods**

This research is a descriptive-analytical study. The study community is all students across the country in November, December 2020 in Iran. The study sample consisted of 200 students (100 depressed, 100 obsessive) students with an average age of 21.9 years and an age range of 18 to 60 years; 69% of the participants were female and 31% were male. The predominant marital status was single with 86.5% and married with 2.5%, which were selected completely randomly. The data is collected through the 16-question self-report depression symptomatology scale (QIDS-SR) with 16 questions (score 6-10 for mild depression, 15-11 for moderate depression, 16-20 for severe depression, and 21-27 for very severe depression) and the 30-question obsession questionnaire.

Maudsley's intellectual-practical (MOCI) was measured with Cronbach's alpha (0.77) where a score above 15 indicates obsessive-compulsive disorder. This survey is sent for free through various electronic links and initially, the informed consent of the user to use the information for research objectives were requested. SPSS version 21 statistical program was used for analysis.

In order to present the frequency table, percentage and ratio were calculated from descriptive statistics and Kolmogorov-Smirnov test was used to check the normality of the data.

## Results

### *The Level of Depression in Students*

According to the results obtained in the Kolmogorov-Smirnov test for depression P-Value= 0.198 >  $\alpha = 0.05$ , the data are normal and 75% of the students were depressed. More details about depression (38% mild depression, 23% moderate depression, 11% severe depression and 3% very severe depression. Table1).

**Table 1.** Prevalence of depressive disorder

Types of depression	n	%	P-Value
Very severe depression	3	3.0	0.198
major depression	11	11.0	
Weak depression	38	38.0	
Moderate depression	23	23.0	
No depression	25	25.0	

### *The Level of Obsession in Students*

According to the results obtained in the Kolmogorov-Smirnov test for obsession, P-Value = 0.052 >  $\alpha = 0.05$ , as a result, the distribution of data was normal according to the analysis and 32% were obsessed (in detail in Table 2).

**Table 2.** Prevalence of Obsessive-compulsive disorder

	n	%	P-Value
Obsessive-compulsive disorder	100	32	0.052

### *Comparison of Depression and Obsession in Students*

According to the scales applied in the 16QIDS-SR scale, an average of 9.26 was found for depression, and in the (MOCI) scale, an average of 11.95 was found. Only the obsession subscale was found in the normal range, while the maximum score was shown for mild depression (Table 3).

**Table 3.** DASS 21 scale

	Obsession	Depression
Mean	11.9500	9.2600
n	100	100
Std. Deviation	5.02393	5.23705
Minimum	.00	.00
Maximum	23.00	22.00
Std. Error of Mean	.50239	.52370

## Discussion

Although many studies have shown that Covid-19 can lead to mental disorders in all countries of the world [19]. However, there are still limited studies on the level of depression and obsession among college students during the corona pandemic, on this basis, the present study was carried out using the Self-Assessment of Depression Symptom Scale (16QIDS-SR) and Maudsley Questionnaire (MOCI) to show that the pandemic How has covid-19 affected depression and obsession among students? The results of this research prove that a very large percentage of students became depressed during the Covid-19 pandemic. In agreement with this finding, a research was conducted in Switzerland under the title of depressive symptoms in Swiss university students during the covid-19 epidemic and their relationship. The results show that more than a quarter of Swiss students showed depressive symptoms during this epidemic. They gave [20]. Also, a study titled depression and anxiety during the epidemic was conducted in a public university on 1821 people. The results showed that students experienced a high degree of depression during the epidemic [21]. A research was conducted on 2349 students in 9 countries under the title of comparison of depression and anxiety among university students in 9 countries during the epidemic. The results show that the students of Turkey had the highest level of depression and the lowest level of depression was observed in the Czech Republic [22]. In contrast to the findings of this research, a research was conducted regarding the depression and anxiety of Iranian students during the covid-19 pandemic. The results showed that there was no significant difference in depression among Iranian students before and after the covid-19 pandemic [16]. It seems that the death rate is unknown, the prevalence is very wide [23], as well as lockdown, reducing social contacts and staying at home [24], therefore, the epidemic of Covid-19 is likely to cause psychological reactions such as depression, anxiety and panicked. The results of this research show that a significant percentage of students became obsessed during the Covid-19 pandemic. In agreement with this finding, a research conducted on 454 students in Italy regarding the impact of the COVID-19 epidemic on the mental health of Italian university students showed that students had moderate to severe levels of obsessive-compulsive symptoms [25]. Another study regarding the role of corona virus anxiety in predicting the obsessive symptoms of students on 380 people showed that corona anxiety can predict the level of discomfort from obsessive symptoms [26]. It seems that people with excessive compulsions such as touching things with gloves, cleaning and imagining that their homes are contaminated and insisting on disinfection [27], therefore, the covid-19 pandemic may have caused obsessive-compulsive disorder. The present research has limitations in terms of the number of sample size under investigation. The results of this research can be used in the pre-management of the treatment of mental disorders in students, although more research is needed to determine exactly what personal and social effects mental disorders in students have left on their lives during the Covid-19 pandemic.

## Conclusion

Overall, the results of this research show that the covid-19 pandemic can cause mental disorders such as obsession and depression in university students, and these findings are important in terms of examining the management of mental disorders in students after the pandemic.

## Acknowledgment

We hereby express our appreciation and thanks to Dr. Rostami and Frank Nejaei who helped in the implementation of this research.

## Conflict of interests

There is no conflict of interests.

## Reference

- [1]. Yuki K, Fujiogi M, Koutsogiannaki S. COVID-19 pathophysiology: A review. *Clinical immunology*. 2020;215:108427.
- [2]. Ciotti M, Ciccozzi M, Terrinoni A, Jiang WC, Wang CB, Bernardini S. The COVID-19 pandemic. *Critical reviews in clinical laboratory sciences*. 2020;57(6):365-88.
- [3]. Choi JY. COVID-19 in South Korea. *Postgraduate medical journal*. 2020;96(1137):399-402.
- [4]. Alsunaidi SJ, Almuhaideb AM, Ibrahim NM, Shaikh FS, Alqudaihi KS, Alhaidari FA, Khan IU, Aslam N, Alshahrani MS. Applications of big data analytics to control COVID-19 pandemic. *Sensors*. 2021;21(7):2282.
- [5]. Ferreira LN, Pereira LN, da Fé Brás M, Ilchuk K. Quality of life under the COVID-19 quarantine. *Quality of Life Research*. 2021;30(5):1389-405.
- [6]. Duarte F, Jiménez-Molina Á. Suicide and quarantine during the COVID-19 pandemic: Do we know everything?. *Social Science & Medicine*. 2022;309:115253.
- [7]. Maatuk AM, Elberkawi EK, Aljawarneh S, Rashaideh H, Alharbi H. The COVID-19 pandemic and E-learning: challenges and opportunities from the perspective of students and instructors. *Journal of Computing in Higher Education*. 2022;34(1):21-38.
- [8]. Wang C, Wen W, Zhang H, Ni J, Jiang J, Cheng Y, Zhou M, Ye L, Feng Z, Ge Z, Luo H. Anxiety, depression, and stress prevalence among college students during the COVID-19 pandemic: A systematic review and meta-analysis. *Journal of American college health*. 2021:1-8.
- [9]. Woon LS, Leong Bin Abdullah MF, Sidi H, Mansor NS, Nik Jaafar NR. Depression, anxiety, and the COVID-19 pandemic: Severity of symptoms and associated factors among university students after the end of the movement lockdown. *PloS One*. 2021;16(5):e0252481.
- [10]. IZADI TA, NADERI FM, NADERI FA, Nikbakht R. Depression in patients with diabetes: A review article. 2014:77-83.
- [11]. Depression WH. Other common mental disorders: global health estimates. Geneva: World Health Organization. 2017;24.
- [12]. Liu W, Zhang H, He Y. Variation in obsessive-compulsive disorder symptoms and treatments: a side effect of COVID-19. *International Journal of Environmental Research and Public Health*. 2021;18(14):7420.
- [13]. Liu W, Zhang H, He Y. Variation in obsessive-compulsive disorder symptoms and treatments: a side effect of COVID-19. *International Journal of Environmental Research and Public Health*. 2021;18(14):7420.
- [14]. Faisal RA, Jobe MC, Ahmed O, Sharker T. Mental health status, anxiety, and depression

levels of Bangladeshi university students during the COVID-19 pandemic. *International journal of mental health and addiction*. 2022;20(3):1500-15.

[15]. Sazakli E, Leotsinidis M, Bakola M, Kitsou KS, Katsifara A, Konstantopoulou A, Jelastopulu E. Prevalence and associated factors of anxiety and depression in students at a Greek university during COVID-19 lockdown. *Journal of public health research*. 2021;10(3):jphr-2021.

[16]. Silverman ME, Nag S, Kalishman A, Cox PH, Mitroff SR. Increases in symptoms associated with obsessive-compulsive disorder among university students during the COVID-19 pandemic. *Journal of American College Health*. 2022:1-7.

[17]. Elsayed MM, Ghazi GA. Fear of COVID-19 Pandemic, Obsessive-Compulsive Traits and Sleep Quality among First Academic Year Nursing Students, Alexandria University, Egypt. *Egypt. J. Health Care*. 2021;12(2):224-41.

[18]. Nakhostin-Ansari A, Sherafati A, Aghajani F, Khonji MS, Aghajani R, Shahmansouri N. Depression and anxiety among Iranian medical students during COVID-19 pandemic. *Iranian journal of psychiatry*. 2020;15(3):228.

[19]. Clemente-Suárez VJ, Martínez-González MB, Benitez-Agudelo JC, Navarro-Jiménez E, Beltran-Velasco AI, Ruisoto P, Diaz Arroyo E, Laborde-Cárdenas CC, Tornero-Aguilera JF. The impact of the COVID-19 pandemic on mental disorders. A critical review. *International Journal of Environmental Research and Public Health*. 2021;18(19):10041.

[20]. Volken T, Zysset A, Amendola S, Klein Swormink A, Huber M, von Wyl A, Dratva J. Depressive Symptoms in Swiss University Students during the COVID-19 Pandemic and Their Correlates. *International journal of environmental research and public health*. 2021;18(4):1458.

[21]. Rudenstine S, McNeal K, Schulder T, Ettman CK, Hernandez M, Gvozdieva K, Galea S. Depression and anxiety during the COVID-19 pandemic in an urban, low-income public university sample. *Journal of Traumatic Stress*. 2021;34(1):12-22.

[22]. Ochnik D, Rogowska AM, Kuśnierz C, Jakubiak M, Schütz A, Held MJ, Arzenšek A, Benatov J, Berger R, Korchagina EV, Pavlova I. A comparison of depression and anxiety among university students in nine countries during the COVID-19 pandemic. *Journal of clinical medicine*. 2021;10(13):2882.

[23]. Lei L, Huang X, Zhang S, Yang J, Yang L, Xu M. Comparison of prevalence and associated factors of anxiety and depression among people affected by versus people unaffected by quarantine during the COVID-19 epidemic in Southwestern China. *Medical science monitor: international medical journal of experimental and clinical research*. 2020;26:e924609-1.

[24]. Benke C, Autenrieth LK, Asselmann E, Pané-Farré CA. Lockdown, quarantine measures, and social distancing: Associations with depression, anxiety and distress at the beginning of the COVID-19 pandemic among adults from Germany. *Psychiatry research*. 2020;293:113462.

[25]. Di Consiglio M, Merola S, Pascucci T, Violani C, Couyoumdjian A. The impact of COVID-19 pandemic on Italian university students' mental health: changes across the waves. *International journal of environmental research and public health*. 2021;18(18):9897.

[26]. Rahimian Booger I, Mazhari MM. Role of Coronavirus (COVID-19) Anxiety Disorder in Predicting Obsessive-Compulsive Disorder in Students. *Iranian Journal of Culture and Health Promotion*. 2022;5(4):469-77.

[27]. Jassi A, Shahriyarmolki K, Taylor T, Peile L, Challacombe F, Clark B, Veale D. OCD and COVID-19: a new frontier. *The Cognitive Behaviour Therapist*. 2020;13.