

## The Psychological Effects of COVID-19 on University Students

Misbah Malik\* Fasiha Altaf† Mehwish Gull‡

p- ISSN: 2521-2982

e- ISSN: 2707-4587

p- ISSN: 2521-2982

### Headings

- [Introduction](#)
- [Objectives of the Study](#)
- [Design of the Study](#)
- [Data Analysis](#)
- [Discussion and Conclusion](#)
- [Recommendations](#)
- [References](#)

**Abstract** *The worldwide spread of COVID-19 is inducing devastating effects on the physical and psychological health of the masses. This study was designed to identify the psychological effects of COVID-19 on university students in Lahore, Pakistan. A sample consisted of 125 students was selected conveniently from all public and private sector universities of district Lahore. A questionnaire comprising 34 statements related to psychological effects (including sleeping routine, eating habits, fear and anxiety, social interaction and mental wellbeing etc.) of COVID-19 on university students was used. The data collected through "google form" was analyzed through SPSS version 22. The results indicated that the COVID-19 pandemic highly affects the social interaction of the students and inflict stress and anxiety among them. On the basis of the findings, it is recommended to keep university students engaged with healthy interactive activities and arrange some counselling sessions to minimize psychological effects to lead them to normal life.*

**Key Words:** Coronavirus (COVID-19), Psychological Effects, University Students

### Introduction

Coronavirus is also known as COVID-19. It is an epidemic infection that was detected first time in December 2019 in Wuhan, a city in China. Now it has spread over 220 countries across the globe. In its initial stage, it was known as an epidemic disease, but the World Health Organization (WHO) declared the wave of the infection by this virus as pandemic on March 11, 2020.

According to the WHO regional office of Africa the coronavirus is basically the comprised large family of zoonotic viruses that cause illness ranging from the common cold to severe respiratory diseases ([Coronavirus, 2020](#)). Zoonotic means these viruses are able to be transmitted from animals to humans. It is acknowledged that this fatal disease firstly found in animals such as mammals, birds, and reptiles in one of the china's super market. It was transferred in humans from those animals. Basically, it was due to the Chinese who use animals and birds in their meals hence that virus firstly found in china and with the passage of time it has spread all over the globe.

On February 26, 2020 the COVID-19 pandemic was confirmed to reached to Pakistan. Meanwhile, current number of cases in all over the Pakistan were around 72,460. Because of the increased rate of cases on 12 March 2020, the Government of Pakistan declared health emergency in a cabinet meeting and then a "complete lockdown" was forced in the whole country on 23<sup>rd</sup> of March 2020. Afterword's, it was extended more due to the increased number of cases and the complete lockdown has transformed to

\*Assistant Professor, Institute of Education and Research, University of the Punjab, Lahore, Pakistan.

†PhD. Scholar, Institute of Education and Research, University of the Punjab, Lahore, Pakistan. Email: [fasihashah@hotmail.com](mailto:fasihashah@hotmail.com)

‡PhD. Scholar, Institute of Education and Research, University of the Punjab, Lahore, Pakistan.

“smart lockdown” on 9th May, 2020. Still, all the big markets as well as education institutions, public gatherings, parks and shopping malls were directed to remain closed. As stated in updated report ([Kaleem, 2020](#)) of Pakistan the COVID cases have reached around 225,283 in which deaths reported over 4,0619 (4%) and recovered cases are around 126,094 (96%).

After influenza pandemic in 1918, the COVID-19 is the highly challenging and distressing human health disasters. According to [WHO \(2020\)](#) approximately 4.2 million people had been infested and 292046 surrendered to it worldwide till May 14, 2020. It has carried pain and sorrow to all the countries. It has created fear, unrest and anxiety among people of all age group. Without discrimination university students are equally getting through the same circumstances.

As a result of lock down and closing of educational institutions method of instruction shifted from Face-to-Face to Online mode. Since March 2020 in Pakistan mostly educational institutions remained closed due to COVID-19 “Order No. SO(I&C-I) I- 2/2020”. Due to this shift, students have been facing many psychological problems. For example, [Cao et al. \(2020\)](#) conducted a study on college students to identify the effects of COVID-19, he found that due to COVID-19 epidemic 24.9% of the students had experienced anxiety. Results of many other studies have proven that public health disasters have resulted into many psychosomatic effects on students at college level, appearing as fear, worry, and anger/anxiety among many others ([Mei et al., 2011](#)) which may affect their studies ([Cornine et al., 2020](#)) and future employment ([Wang et al., 2020](#)). In the absence of interpersonal communication anxiety disorders are more likely to occur and worsen ([Xiao, 2020](#); [Kmietowicz, 2020](#)).

As a result of this pandemic (COVID-19), people are seriously affected physically as well as psychologically. It is due to the enormity of living in isolation that has changed their daily lives and make them jobless. Moreover, they face financial hardships and grief over the death of their loved ones which entails to affect their mental health and well-being. However, even students are affecting severely by this pandemic since many of them were not able to continue their education formally. The continues increase of this pandemic caused severe quarantine and postponements for reopening of educational institutions throughout the country which influenced the psychological wellbeing of students.

According to [Varshney, Parel, Raizada, and Sarin \(2020\)](#) in the initial time of COVID-19 pandemic a substantial percentage of populace was suffering from psychological effects of the crisis due to fear of disease and several deaths. Similarly, Ma et al. (2020) found the association of COVID-19 contagion with stressful outcomes. Additionally, there are many risk factors during the epidemic i.e. interaction with infected and sick persons, high mortality rate, discrimination, unable to access basic life needs and resource insecurity, which can cause severe psychological problems. According to [Zhang and Ma. \(2020\)](#) limited studies have found the effects of the COVID-19 on psychological health or life quality of individuals in China.

According to [Serafini et. al. \(2020\)](#) there are many negative psychological outcomes of COVID-19 quarantine, frustration and Boredom is the foremost of them. [Jeong et al. \(2016\)](#) argued that reticence from daily activities cause frustration loneliness. Pervasive loneliness and boredom effects physical as well as mental health of individuals and leads to anxiety which my terns to disabling feelings of loneliness. Torales, O’Higgins Castaldelli-Maia, and Ventriglio (2020) argued that social isolation may lead to use of alcohol and drug abuse, hopelessness and even suicidal behavior. There for quarantine or social isolation may have harmful effects on mental health of individuals.

According to [Bai, Lin, Lin, Chen, Chue and Chou \(2004\)](#) one of the most common psychological effects of a pandemic is specific and uncontrolled fears related to infection i.e., general worries about their own health, fears to infect family members and others. [Jeong, et. al. \(2016\)](#) argued that inadequate supplies of basic needs to the locked individuals is one of the main reason of worries, anger/anxiety and frustration.

[Salman, et. al. \(2020\)](#) argued that due to nonstop extension of the infection emerging new theories, blame games, myths and astonishing reporting by media about COVID-19, psychological health of university students is being affected. Majority of students are in the state of frustration and boredom,

because they are not only facing lack of personal space at home but there are also having financial crisis due to lock down, disconnection with friends, classmates and teachers.

Many earlier studies have assessed the psychological impact of previous pandemics i.e., SARS and MERS and found substantial impact of those endemic on students' mental health ([Al-Rabiaah et al., 2020](#); [Wong et al., 2007](#)). This infectious disease outbreak had severe impacts of the students' mental health for instance "Post-traumatic stress disorder", "Psychological distress", "Depression" and "Anxiety". Most of the psychological problems are closely associated to the "Post-traumatic stress disorder".

Severe psychological effects of the epidemic have been identified on the college students, healthcare workers and general public (Chew et al., 2020; [Cao et al., 2020](#); Li et al., 2020; [Wang et al., 2020](#)) and so forth. However, there is scarcity of research which have assessed the psychological effects of COVID-19 on university students in Pakistan. Consequently, this study was designed to identify the psychological effects of COVID-19 on university students in Lahore Pakistan.

## Objectives of the Study

The objectives of this study were to:

- Identify the effect of COVID-19 on universities student's sleeping habits?
- Recognize effect of COVID-19 on universities student's eating habits?
- Find out the effect of COVID-19 on universities student's social interaction?
- Assess the effect of COVID-19 on universities student's mental wellbeing?
- Find out the effect of COVID-19 on the male and female university students living in urban and rural areas?

## Research Questions

This research work mainly focused on the psychological effects of the new COVID-19 on university students studying in public and private sector universities. In order to achieve the expected objectives, this study focused to find out answers of the following research questions in particular:

- What is the effect of COVID-19 on universities student's sleeping habits?
- Are there any effects of COVID-19 on universities student's eating habits?
- What is the effect of COVID-19 on universities student's social interaction?
- Are there any effects of COVID-19 on universities student's mental wellbeing?
- How does the COVID-19 affect the male and female university students living in urban and rural areas?

## Design of the Study

The study was accompanied under a quantitative survey design. The survey research was accompanied through the questionnaire. Survey questionnaire is a set of statements which are asked from the participants of a study in a form of their agreeableness.

## Population of the Study

The population of this study comprised of all the students of private and public universities across the district Lahore

## Sample and Sampling Technique

Due to unavailability of students on campus amid COVID-19 they were approached digitally. A sample of

300 students was selected conveniently, out of which 125 respond from private and public universities of the Lahore district.

### Instrument for the Data Collection

The questionnaire consisted of 34 statements was developed, which comprised of two section: one to ask demographic information and other contained statements related to psychological factors including: sleeping routine (six statements), eating habits (six statements), stress and fear (ten statements), social interaction (six statements) and mental wellbeing (eight statements) etc., Responses were taken on a five-point Likert Scale. from Strongly Agree to Strongly Disagree. Google Form was used as a Data Collection Tool. The questionnaire was sent to the respondents through email. Many of the respondents were contacted telephonically to request to read questionnaire carefully and ask for help if they face any difficulty. Researchers assured them that their responses will be kept confidential.

### Data Analysis

After the data collection procedure. Each response was given a specific code like 0, 1, 2 and so on. The results were determined by applying the statistics formula of descriptive analysis along with t-test. By data analysis, following results were drawn related to each data item in the questionnaire.

**Table 1.** Age of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
18-20	16	12.8	12.8	12.8
21-25	98	78.4	78.4	91.2
Above 25	11	8.8	8.8	100.0
Total	125	100.0	100.0	

Table 1 shows the ages of respondents in which 78.4% respondents are those whose ages between 21-25 with highest percentage.

**Table 2.** Gender of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	10	8.0	8.0	8.0
Female	115	92.0	92.0	100.0
Total	125	100.0	100.0	

This table 2 shows that out of 125 respondents respond. There were 8% male and 92% females. The observation shows that the majority of the respondents are females.

**Table 3.** Area of Respondents

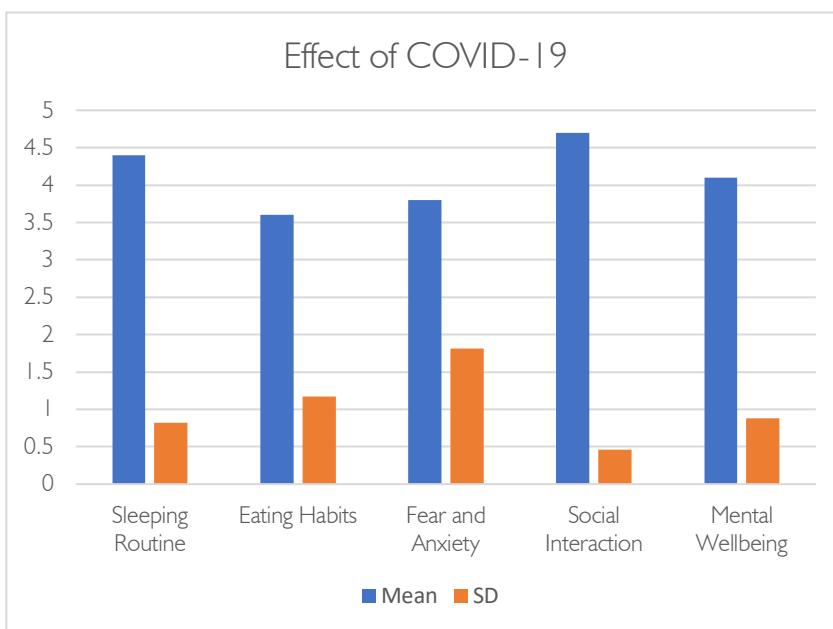
	Frequency	Percent	Valid Percent	Cumulative Percent
Urban	107	85.6	85.6	85.6
Rural	18	14.4	14.4	100.0
Total	125	100.0	100.0	

Table 3 shows the area of respondents. Mostly respondents live in urban area with highest percentage that is 85.6%.

**Table 4.** Institute of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Public	91	72.8	72.8	72.8
Private	34	27.2	27.2	100.0
Total	125	100.0	100.0	

Table 4 shows the institutes from which the data was collected. The collected data describes that majority of the respondents are from the public universities with 72.8%



**Figure 1:** Effect of COVID-19 on Sleeping, Eating, Fear and Anxiety, Social Interaction and Mental wellbeing

**Table 5.** Psychological Effect of COVID-19

Psychological Factor	Mean	SD
Sleeping Routine	4.4	0.82
Eating Habits	3.6	1.17
Fear and Anxiety	3.8	1.81
Social Interaction	4.7	0.46
Mental Wellbeing	4.1	0.88

Tables 5 presents the results of descriptive statistics showing effects of COVID-19 on sleeping, eating, fear and anxiety, social interaction and mental wellbeing of University students. It is evident that COVID-19 levies strong effects on social interaction of university students. Similarly sleeping routine, mental wellbeing, fear and anxiety and eating habits got affected due to prevailing situation during COVID-19 lockdown. So, on the basis of these results there is no doubt to infer that COVID-19 had adversely inflicted university students psychologically.

**Table 6.** t-test to identify Difference in Responses on the Basis of Gender

Variable	Mean	SD	MD	df.	t-value	Sig.
Male	83.90	12.39	-4.41	123	-.793	.430
Female	87.13	17.19				

Table 6 presents the results of independent sample t-test to identify mean difference in male and female university students' responses regarding psychological effects of COVID-19 on them. It is clear that the mean difference in female (M = 87.13, SD = 17.19) and male (M = 83.90, SD = 12.39) students responses is not statistically significant  $t(123) = .793, p = .430$ . So, it is concluded that situation arises as a result of COVID-19 inflicted, same psychological effects on university students irrespective of their gender.

**Table 7.** t-test for Mean Difference in Responses of Urban and Rural Students

Variable	Mean	SD	MD	df	t-value	Sig.
Urban	86.93	17.36	-5.01	123	-1.17	.246
Rural	91.14	13.09				

Table 7 presents the results of independent sample t-test to identify mean difference in university students' responses who belonged to rural and urban areas for the psychological effects of COVID-19 on them. It is clear that the mean difference in responses of students belonged to rural (M = 91.14, SD = 13.09) and urban (M = 86.93, SD = 17.36) is not statistically significant  $t(123) = 1.17, p = .246$ . So, it is concluded that situation arises as a result of COVID-19 laid on the same psychological effects on university students regardless of their locality.

**Table 8.** Institute T-test

Variable	Mean	SD	MD	df	t-value	Sig.
Public	87.9231	17.68630	2.80543	123	.827	.410
Private	85.1176	14.46786	2.80543			

Table 8 presents the results of independent sample t-test to identify mean difference in responses of public and private university students for the psychological effects of COVID-19 on them. It is evident that the mean difference in responses of students studying in private (M = 85.11, SD = 14.17) and public (M = 87.92, SD = 17.68) universities is not statistically significant  $t(123) = .827, p = .410$ . So, it is concluded as a result of COVID-19 there were same psychological effects on university students regardless of their university sector.

## Discussion and Conclusion

Purpose of this endeavor was to identify the psychological effects of COVID-19 on university students. Result have proven prevalence of psychological health apprehensions like anxiety, worries and insomnia during COVID-19 situation. On the basis of student's responses concerning their psychological health, it is concluded that covid-19 has significant influence on the psychological and physical health of university students. They faced bad sleeping which effects their mental and physical health badly as well as they get stressed during this pandemic era. Same results were found in many other studies conducted on the college students, healthcare workers and general public (Wang et al., 2020; Cao et al., 2020; Chew et al., 2020; Li et al., 2020).

Moreover, the closure of universities negatively effects their studies as well as their internal assessments which cause stress and anxiety among them. They find themselves in stress that makes them scared towards the covid-19 (coronavirus). Caoa (2020) also found the similar results when he conducted a study on

college students to identify the effects of COVID-19, where 24.9% of the students had experienced anxiety due to COVID-19 outbreak.

On the basis of the findings of the study it is concluded that mental health of students has been affected as like past instances when pandemics i.e. SARS and MERS put substantial impact on students' mental health ([Al-Rabiaah et al., 2020](#); [Wong et al., 2007](#)).

So, it should not be neglected during this epidemic. Educational institutions can work together for the sake of better psychological health of their students to reduce psychological effects and improve their mental wellbeing.

The psychological effect of fear and anxiety caused by the quick increase of pandemic needs to be addressed by institutions and authorities by enhancing communication level on university students through different interactive platform. In this regard Government of Pakistan has reserved several customer services numbers to provide "guidance and counselling", in collaboration with different national Institutes. World Health Organization has urged to take the necessary precautions to tackle the negative impact of the spread of Coronavirus on psychological health and well-being.

Every research has its own scope and importance but, at the same time, it has some limitations. Hence, the present study came across some limitations which are as follows:

- Data was collected online due to the closure of universities.
- Due to the lockdown in covid-19 pandemic, data was collected only from university students of Lahore district.

### Recommendations

- There should be seminars and webinars to educate the masses about the psychological effects of COVID-19 so that they can be careful and ready to tackle/overcome these negative effects.
- Guidance and counseling should be provided to students to set a healthy daily routine in order to keep their mind busy and avoid unnecessary overthinking and assumptions.
- As social interaction is essential to decrease tension, so students should stay connected with peers, teachers and people close to them by telephone and social media.

## References

- Ahmad, A., Khan, F. A., Shanmugam, G. N., Sharma, A. K. (2020). A multinational, multicenter study on the psychological outcomes and associated physical symptoms amongst healthcare workers during covid-19 outbreak. *Brain Behav. Immun.* <https://doi.org/10.1016/j.bbi.2020.04.049>.
- Al-Rabiah, A., Tamsah, M. H., Al-Eyadhy, A. A., Hasan, G. M., Al-Zamil, F., Al-Subaie, S., Alshime, F., Jamal, A., Alhaboob, A., Al-Saadi, B., & Somily, A. M. (2020). Middle East Respiratory Syndrome-Corona Virus (MERS-CoV) associated stress among medical students at a university teaching hospital in Saudi Arabia. *J Infect Public Health.* 13(5):687-691. doi: 10.1016/j.jiph.2020.01.005
- Bai, Y., Lin, C. C., Lin, C. Y., Chen, J. Y., Chue, C. M., & Chou, P. (2004). Survey of stress reactions among health care workers involved with the SARS outbreak. *Psychiatr Serv*, 55, 1055-7
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Res.*, 20, 1129-34.
- Comine, A. (2020). Reducing nursing student anxiety in the clinical setting: an integrative review. *Nurs. education Perspectives*. 10
- Coronavirus. (2020). World Health Organization, Regional Office of Africa. <https://www.afro.who.int/publications/coronavirus>
- Jeong, H., Yim, H. W., Song, Y. J., Ki, M., Min, J. A., & Cho, J. et al. (2016). Mental health status of people isolated due to Middle East respiratory syndrome. *Epidemiol Health* 2016, 38: e2016048.
- Kaleem, M. F. (2020). Educational institutions to stay closed till July 15; board exams cancelled. <https://dailytimes.com.pk/609118/educational-institutions-to-stay-closed-till-july-15-boardexams-cancelled/> (accessed 12 May 2020)
- Kmietowicz, Z. (2020). Rules on isolation rooms for suspected covid-19 cases in GP surgeries to be relaxed. *BMJ*. Clinical research ed. 368-707.
- Li, S. W., Wang Y., Yang, Y. Y., Lei X. M., & Yang Y. F. (2020). Analysis of influencing factors of anxiety and emotional disorders in children and adolescents during home isolation during the epidemic of novel coronavirus pneumonia. *Chinese Journal of Child Health*. 1-9.
- Ma, Z. F., Zhang, Y., Luo, X., Li, X., Li, Y., Liu, S., & Zhang, Y. (2020). Increased stressful impact among general population in mainland China amid the COVID-19 pandemic: A nationwide cross-sectional study conducted after Wuhan city's travel ban was lifted. *International Journal of Social Psychiatry*, 66(8). 770-779.
- Mei, S. L., Yu, J. X., He, B.W., Li, J. Y. (2011). Psychological investigation of university students in a university in Jilin province. *Med Soc (Berkeley)* ;24(05):84-86.
- Salman, M., Asif, N., Mustafa, Z. U., Khan, T. M., Shehzadi, N., Hussain, K., Tahir, H., Raza, M. H., Khan, M. T. (2020). Psychological Impact of COVID-19 on Pakistani University Students and How They Are Coping medRxiv 2020.05.21.20108647; doi: <https://doi.org/10.1101/2020.05.21.20108647>
- Serafini, G., Parmigiani, B., Amerio, A., Aguglia, A., Sher, L., & Amore, M. (2020). The psychological impact of COVID-19 on the mental health in the general population. *QJM: monthly journal of the Association of Physicians*, 113(8), 531-537. Advance online publication. <https://doi.org/10.1093/qjmed/hcaa201>
- Torales, J., O'Higgins, M., Castaldelli-Maia, J. M., & Ventriglio, A. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. *Int J Soc Psychiatry*, 66, 317-320.
- Varshney, M, Parel, J. T., Raizada, N., & Sarin, S. K. (2020). Initial psychological impact of COVID-19 and its correlates in Indian Community: An online (FEEL-COVID) survey. <https://doi.org/10.1371/journal.pone.0233874>
- Wang, W., Tang, J., & Wei, F. (2019). Updated understanding of the outbreak of 2019 novel coronavirus (2019-ncov) in Wuhan, china. *J. Med. Virol.*



- WHO (2020). Novel Coronavirus (2019-ncov) Situation Report—22 Situations; WHO: Geneva, Switzerland.
- Wong, T. W., Gao, Y., Tam, W. W. (2007). Anxiety among university students during the SARS epidemic in Hong Kong. *Stress and Health: Journal of the International Society for the Investigation of Stress*, 23, 31-35.
- World Health Organization, (2020). Coronavirus disease (COVID-2019) situation reports. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports> (accessed 15 May 2020).
- World Health organization. Coronavirus Disease (COVID-19). (2020). Available: <https://www.who.int/india/emergencies/novel-coronavirus-2019>
- Xiao, C. A. (2020). novel approach of consultation on 2019 novel coronavirus (COVID-19)-Related psychological and mental problems: structured letter therapy. *Psychiatry Investig*, 17(2), 175–176.
- Zhang, Y., & Ma, Z. F. (2020). Impact of the COVID-19 Pandemic on Mental Health and Quality of Life among Local Residents in Liaoning Province, China: A Cross-Sectional Study. *International journal of environmental research and public health*, 17(7), 2381. <https://doi.org/10.3390/ijerph17072381>