

*Original Article*

# Psychosocial Impact of Lockdown Due to Novel Corona Virus Covid 19 among Medical Undergraduate Students

Rupali Sarode<sup>1</sup>, Shashank Gotarkar<sup>2</sup>, Prakash Mohite<sup>3</sup>, Sourya Acharya<sup>4</sup>, Samarth Shukla<sup>5</sup>

<sup>1</sup>Clinical Psychologist – Students Guidance Clinic, <sup>2</sup>Assistant Professor, Department of Community Medicine, <sup>3</sup>Professor, Department of Forensic Medicine, <sup>4</sup>Professor, Department of Medicine, Jawaharlal Nehru Medical College, Sawangi (M) Wardha. 442004. Maharashtra, <sup>5</sup>Professor, Department of Pathology, Jawaharlal Nehru Medical College, Wardha. 442004 Maharashtra

## Abstract

**Background:** The outbreak of Novel Corona Virus Disease (COVID-19) which started in the late 2019, in Wuhan in Hubei province of China because of its high infectivity and fatality rate, has caused universal psychosocial impact on people. Mass fear of COVID-19, termed as “Coronaphobia”, has generated a plethora of psychiatric manifestations across the different strata of the society. So, this study has been undertaken to define psychosocial impact of COVID-19 on Medical graduates with an objective to assess the reasons for breaking the lockdown and the level of psychosocial impact of lockdown on a Medical graduates during the COVID-19 lockdown period. A cross sectional prospective study was done on 285 students of First to final year MBBS. Validated Psychosocial Impact Scale was used for data collection. The results showed the intensity of negative impact of lockdown on the students studying in medical college. 18.60% students showed normal response to the lockdown situation in this COVID 19 pandemic. 47.72% students showed borderline negative impact of lockdown. 29.12 students had mild negative impact, 4.56 % students had moderate negative impact and no student found to be in range of severe negative impact of lockdown.

**Key words:** COVID 19, psychosocial impact, Coping, Medical students.

## Introduction

The outbreak of Novel Corona Virus Disease (COVID-19) which started in the late 2019, in Wuhan in Hubei province of China because of its high infectivity and fatality rate, has caused universal psychosocial impact on people by causing mass hysteria, economic burden and financial losses. Mass fear of COVID-19, termed as “Coronaphobia”, has generated a plethora of psychiatric manifestations across the different strata of the society.<sup>(1)</sup>

The 2019 Corona Virus Disease (COVID-19) outbreak has been declared an international public health emergency on January 30, 2020 by the World Health Organization (WHO) as the disease, first reported from China in December 2019, continues to surge through the continents affecting many countries from Europe, America and Asia severely and is still widening its burden of disease<sup>(2)</sup>. A wide fragment of world’s population currently is primarily restricted to their homes, owing to nationwide lockdowns and home-confinement strategies implemented in the majority of the COVID-19-hit countries after China to prevent further disease transmission<sup>(3,4)</sup>. This unpredictable, fast spreading infectious disease has been causing universal awareness, anxiety and distress, all of which according to WHO are natural psychological responses to the randomly changing condition<sup>(5)</sup>. Adverse psychosomatic outcomes among common people are nevertheless expected to increase significantly due to the pandemic

---

### Corresponding author:

**Dr. Prakash Mohite,**

Professor, Department of Forensic Medicine,  
Jawaharlal Nehru Medical College,  
Sawangi (M) Wardha. 442004. Maharashtra.  
Mobile: 9850397120 / 9511252830, Email:  
drprakashmohite@rediffmail.com

itself and also due to constant flow of readily available information and reinforced messaging obtained via online social networking services of almost all forms. As a consequence, rapidly expanding mass hysteria and panic regarding COVID-19 may beget enduring psychological problems in public from all the socioeconomic domains, which could potentially be even more detrimental in the long run than the virus itself<sup>(6)</sup>. Prior studies elucidated that mental well-being had been heavily affected in this kind of global pandemic<sup>(7, 8)</sup>. It creates a negative concept that can have an impact on one's mental and physical well-being. Psychological or psychosocial distress is the stress induced on our mind. It is related to both external and internal factors.<sup>(9)</sup> Therefore, it is imperative to determine the various possible ways in which COVID-19 pandemic will be impacting the world's mental health<sup>(10,11,12)</sup>.

So, this study has been undertaken to define psychosocial impact of COVID-19 on Medical undergraduate students.

### **Aim**

Assessment of the level of psychosocial impact of lockdown on the students of Medical profession during the COVID-19 pandemic lockdown period.

#### **Objectives:**

1. To assess the reasons for breaking the lockdown by Medical students.
2. To assess the level of psychosocial impact of lockdown on the students of Medical profession during the COVID-19.

### **Materials & Methods**

#### **Study Setting**

The study was conducted in Wardha city of Maharashtra state which was an initial Green Zone for 50 days and later declared an Orange Zone. The students were from Jawaharlal Nehru Medical College residing at home.

#### **Inclusion Criteria:**

1. Students from First MBBS to Final MBBS
2. Students from Jawaharlal Nehru Medical

college, DMIMS

3. Students who are staying at home in lockdown situations
4. Students who are willing for participation.

#### **Exclusion Criteria:**

1. Students from other constituent colleges of DMIMS i.e. Dental, Ayurvedic, Nursing, Physiotherapy
2. Students who are staying at hostels in college campus during lockdown period in COVID 19 pandemic.
3. Students who are not willing for participation.

**Study design:** Cross Sectional Prospective study. An Online survey with Google forms of questionnaire

**Study population:** College students from the disciplines of Medical sciences (From First To Final Year MBBS) in the age group of 18- 25 years both Male and Female included in the study.

**Study duration:** June-July 2020

**Sample Size:** 285

**Tool for data Collection:**

**Psychosocial Impact Scale:**

To evaluate the psychosocial impact of lockdown, the scale used is developed by Dr. Vaishali Tendolkar, Professor, Mental Health Nursing, Datta Meghe College of Nursing, Nagpur, and Maharashtra. ( $r=0.85$ ).<sup>(13,14,15,16)</sup> The Part I caters to the demographic information of the students and includes, age, residence, course of study, year of study, types of family, number of family members, during lock down living with, etc. Part II of the tool evaluated the reasons for breaking the lock down and number of times the lock down was broken by the student in past 15 days. The Part III of the tool was a self-rating scale with 35 statements for which response was elicited on 5 point scale. The response was to be graded based on how often the student felt that way in lockdown days. Higher the response higher was the impact. Each item had minimum score of 0 and maximum score of 4. The responses ranged from minimum 0 to maximum 140. The score range of 0 – 25 was considered as normal response to the event of lock down. 26 – 45 score was

considered as borderline negative impact. Scores range from 46 – 75 was treated as mild negative impact, 76-105 was put into moderate negative impact category and scores range 106 – 140 were put into severe negative impact category.

#### **Methods of data collection:**

The students were contacted through mobile messaging services such as Watts App. The link of the Google form was shared with students. The participation in the survey was purely on voluntary basis. The investigators were accessible through phone for clearing their doubts.

#### **Data Analysis:**

The collected data was coded and analyzed on the basis of the objectives of the study. Descriptive statistics of mean, standard deviation, frequency percentage was used to describe the students as per their responses.

#### **Limitations:**

1. The study is limited to the students of Jawaharlal Nehru Medical College, Sawangi (Meghe), Wardha (M.S) in Central India.

## **Results**

### **Part I - Demographic information of the students**

The distribution of students according to their demographic characteristics reveals that the mean age of the students is 20.62+ 1.56 (18-26 years). Total number of students were 285, 42.80 % were male and 57.20% were female participants. All the students were from MBBS course. 34.03% participants were studying in first year, 20.35% in second year, 29.82% in third year and 15.78% in final year. 16.49% students were from rural areas, 67.72% students lived in urban areas and 15.79% students residing in semi urban areas. Maximum students belonged to Hindu religion, 5.61% belonged to Muslim religion, 1.40% belonged to Christian religion, 0.35% belonged to Buddhist and 1.05% belonged to Jain religion. The students belonged to nuclear family was 74.04% and 25.96% belonged to joint Family. 24.21% students had 2 to 3 family members in their home. 45.96% students had 4 members in their family and 17.54% student had 5 members in their family and 12.28% students had more than 5 members in their

family. 1.75% students revealed that they were living alone during this lockdown period, 1.40% students residing with friends, 94.74% students residing with parents and 2.11% residing with relatives.

### **Part II- Distribution of students according to practices during lockdown**

Part II of the tool evaluated the reasons for breaking the lock down and number of times the lock down was broken by the student in past 15 days. The number of times students went out of their house and also mentioned the reasons for leaving their house during the period of lockdown in COVID 19 situation. 67.7% students have been out on roads during lockdown. 7% students went out for their some job, 46.8% students were out for medicines, 31% students out for grocery and vegetables, 27.5% students went out to meet their friends 2.9% students were out as they had to attend funeral, 10.2% students went out to attend family function, 24.9% students went out to complete academic assignments. 53% students went out to refresh themselves, 29.5% students went out to help neighbor/ relatives.

### **Part III- Distribution of students according to psychological impact of lockdown**

It shows the responses of the participants describing their feeling and state of mind during the period of lockdown. 39.29% participants felt that Govt. has straddled their activities unnecessarily, 95.43% participants were happy for being with their family, 92.97% students worried about their educational loss, 46.32% students bored seeing same faces day and night, 84.56% participant didn't like being instructed every now and then, 79.31% participants felt that they were expected to study round a clock. 65.62% felt that their privacy is challenged. 47.37% participants were feeling helpless as they have to be at home, 28.41% students were feeling feel they are being jailed for no reason, 90.17% participants were relieved that they are getting enough time to study, 65.26%, participants were feeling lonely as they can't meet their friends, 71.93% students felt social media contact with friends and relatives is not sufficient. 46.67% students regretted to be the part of this lockdown, 37.89% students didn't feel like eating, 75.09% felt that they have slowed down in their actions, 74.39% students feeling irritability in this lockdown days, 52.98% participants having sleepless night, 51.58%

students worried about existence of human race. 31.93% students cried in these days, 50.17% felt that they have become touchy /sensitive because of being in one place, 48.08% felt hopeless about their future, 54.39% felt depressed when they read/view on social media about lockdown, 47.01% students have become suspicious these days, 53.34% felt that third world war has started, , 86.34% felt uncertainty about the duration of lockdown , 28.08,% students felt that they were victimized during lockdown, 90.17% participants felt sad when they heard

about the death on news channels, 40.69% participant didn't think that they will be able to meet their friends with same warmth again, 60% students thought social distancing has distanced people from one another, 79.31% participants felt that lockdown shattered their dreams, 65.62% participants were worried about their economic loss, 47.37% participants feared that they may be jobless 28.41% students felt hopeless about their financial condition. 90.17% participants didn't like working these days.

**Table 01: Distribution of students according to level of psycho-socio impact**

Psycho-socio impact	Score Range	No of students	Percentage
Normal	0-25	53	18.60
Borderline	26-45	136	47.72
Mild Negative	46-75	83	29.12
Moderate Negative	76-105	13	4.56
Severe Negative	106-140	0	0
Total		285	100
Mean±SD		40.43 ± 17.50	
Mean% ± SD		28.88 ± 12.50	
Range		2-99	

The above table and the graph show the intensity of negative impact of lockdown on the students studying in medical college. 18.60% students showed normal response to the lockdown situation in this COVID 19 pandemic. 47.72% students showed borderline negative impact of lockdown. 29.12 students had mild negative impact, 4.56 % students had moderate negative impact and no student found to be in range of severe negative impact of lockdown.

### Discussion

In early December 2019, an acute respiratory infectious disease resembling pneumonia of unknown cause was first reported on 31 December 2019 and on 30 January 2020 the outbreak was declared a Public Health Emergency of International concern causing increased mortality which was reported in Wuhan in Hubei

Province in China. On 11 February 2020 the World Health Organization (WHO) announced a name for this novel virus infection COVID-19 has been responsible for the symptoms. The disease had a widespread all over the world with rapid rate affecting millions of people across the globe. Most of the countries are forced to take drastic steps of lockdown to curb the spread of the disease. In India too lockdown was forced as per the WHO guidelines forcing to shut down all establishments, Institutions and Commercial trade. These lead to varied problems in the society affecting the people of all strata due to either financial loss, job loss or academic loss due to fear of anxiety and apprehension. The education got halted due to lockdown. The students got stranded at their places and were forced to study through online mode to complete the academic session and undertake the examination. Students with no proper reading material

at home had extra burden of studying teaching material available through net with the available apparatus. Hence through structured questionnaire based study the psychological impact of lockdown in the Medical students was evaluated. It is found that the fear of the disease and lockdown situation has affected the mental status of Medical graduants where 47.72% showed borderline, 29.12% of students showed Mild and 4.56% showed Moderate Negative impact of lockdown. None of the students showed severe negative impact. It is imperative to do the psychological counselling of the students so that they can cope up with the prevailing situation. Investigators didn't get the exact supporting studies for these results but in a study by P. Gonzalez revealed that moderate to extremely severe scores of anxiety, depression, and stress were reported by 21.34%, 34.19% and 28.14% of the students of Spanish university, respectively. A total of 50.43% of respondents presented moderate to severe impact of the outbreak.<sup>(17)</sup> In another study respondents from the age group of 21-40 years showed that hypochondriacal thoughts showed highest significance with depression ( $Z=-4.528$ ,  $p=0.000$ ) and stress ( $Z=-6.606$ ,  $p=0.000$ ) compared to other domains. Excessive fear of contamination & contracting COVID-19 showed highest significance with anxiety ( $Z=-6.481$ ,  $p=0.000$ ).<sup>(18)</sup>

### Conclusion

Proper counseling and regular follow up of the students informing them to follow the guidelines issued by WHO, ICMR and the Government agencies from time to time will not only help to curb this disease but also will help all to cope up and live a normal healthy life.

**Ethical Clearance-** Ethical clearance is obtained from the Institutional Ethical Committee of JNMC, Sawangi (Meghe), Wardha. (Vide Reference no: DMIMS (DU)/IEC/2020-21/9032)

**Sources of Funding-** None

**Conflict of Interest -** Nil

### References

1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7255207/pdf/main.pdf>
2. Lai C.C., Shih T.P., Ko W.C., Tang H.J., Hsueh P.R. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): the epidemic and the challenges. *Int J Antimicrob Agents.* 2020; 55:105924.
3. Rubin G.J., Wessely S. The psychological effects of quarantining a city. *BMJ.* 2020; 368:m313.
4. Pulla P. Covid-19: India imposes lockdown for 21 days and cases rise. *BMJ.* 2020; 368:m1251.
5. Kluge H.N.P. Statement – physical and mental health key to resilience during COVID-19 pandemic. <http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/statements/statement-physical-and-mental-health-key-to-resilience-during-covid-19-pandemic> (accessed on 30th March, 2020)
6. Depoux A., Martin S., Karafillakis E., Bsd R.P., Wilder-Smith A., Larson H. The pandemic of social media panic travels faster than the COVID-19 outbreak. *J Trav Med.* 2020 taaa031.
7. Sim K., Chua H.C. The psychological impact of SARS: a matter of heart and mind. *CMAJ.* 2004; 170:811–812.
8. Wu P., Fang Y., Guan Z., Fan B., Kong J., Yao Z., Liu X., Fuller C.J., Susser E., Lu J., Hoven C.W. The psychological impact of the SARS epidemic on hospital employees in China: exposure, risk perception, and altruistic acceptance of risk. *Can J Psychiatr.* 2009; 54:302–311.
9. Pansey, P., Shukla, S., Acharya, S., Acharya, N., Assesment of Psychosocial Distress in Medical Students Through Oxidative Stress-A Pilot Study. *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 16, Issue 10 Ver. XI (Oct. 2017), PP 30-35
10. Shigemura J., Ursano R.J., Morganstein J.C., and Kurosawa M., Benedek D.M. Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: mental health consequences and target populations. *PsychiatrClinNeurosci.* 2020; 74:281–282.
11. Lima C.K.T., Carvalho P.M.M., Lima I.A.A.S., Nunes J.V.A.O., Saraiva J.S., de Souza R.I. The emotional impact of Coronavirus 2019-nCoV (new Coronavirus disease) *Psychiatr Res.* 2020; 287:112915.
12. Zandifar A., Badrfam R. Iranian mental health during the COVID-19 epidemic. *Asian J Psychiatr.* 2020; 51:101990.

13. Young JF, Mufson L, and Gallop R: Preventing depression: a randomized trial of interpersonal psychotherapy-adolescent skills training. *Depress Anxiety*. 2010, 27 (5): 426-433. 10.1002/da.20664.
14. Moonzwe LS, Schensul JJ, Kostick KM: The role of MDMA (Ecstasy) in coping with negative life situations among urban young adults. *J Psychoactive Drugs*. 2011, 43 (3): 199-210.
15. Kardum I, Krapic N: Personality traits, stressful life events, and coping styles in early adolescence. *Personal Individ Differ*. 2001, 30: 503-515. 10.1016/S0191-8869(00)00041-6.
16. Grant KE, Compas BE, Stuhlmacher AF, Thurm AE, McMahon SD, Halpert JA: Stressors and child and adolescent psychopathology: moving from markers to mechanisms of risk. *Psychol Bull*. 2003, 129 (3): 447-466.
17. Gonzalez et. al. psychological effects of COVID-19 outbreak and lockdown among students and workers of a Spanish University. *Psychiatry Research*, 2020. Vol. 290, 113108.
18. Vishwak Reddy V, Satya Revanth Karri, Tabitha Jezreel, Shadaan Afeen, Praveen Khairkar. Psychosocial Impact of COVID-19 Lockdown on Mental Wellbeing among 11 States of India: A Markov Modeling Approach. 2020 *Journal of Psychiatry and Psychiatric disorders*. 158-174.