



PSYCHOLOGICAL EFFECTS OF THE COVID 19 OUTBREAK AMONG UG MEDICAL STUDENTS STUDYING IN A TERTIARY CARE HOSPITAL IN KERALA- A QUESTIONNAIRE BASED STUDY

Psychology

Sumithra N Unni C*	Assistant Professor, Dept of Biochemistry, Amrita Institute of Medical Sciences And Research Centre AIMS, Amrita ViswaVidyapeetham University, AIMS Ponekkara P.O, Kochi - 682 041. *Corresponding Author
Saritha Sekhar	Dept of Cardiology, Amrita Institute of Medical Sciences And Research Centre AIMS, Amrita ViswaVidyapeetham University, AIMS Ponekkara P.O, Kochi - 682 041
Joel Benny Joseph	Third Year MBBS, Amrita Institute of Medical Sciences And Research Centre AIMS, Amrita ViswaVidyapeetham University, AIMS Ponekkara P.O, Kochi - 682 041
Safwaan Sameer	Third Year MBBS, Amrita Institute of Medical Sciences And Research Centre AIMS, Amrita ViswaVidyapeetham University, AIMS Ponekkara P.O, Kochi - 682 041
Karan Dhillon	Third Year MBBS, Amrita Institute of Medical Sciences And Research Centre AIMS, Amrita ViswaVidyapeetham University, AIMS Ponekkara P.O, Kochi - 682 041
Kishan Venu	Third Year MBBS, Amrita Institute of Medical Sciences And Research Centre AIMS, Amrita ViswaVidyapeetham University, AIMS Ponekkara P.O, Kochi - 682 041

KEYWORDS

INTRODUCTION

Covid 19 pandemic triggered by the new corona virus SARS-CoV-2 has shifted the focus point of the medical community's attention and efforts in trying to curb the morbidity and mortality^[1]. The clinical presentation ranges from being totally asymptomatic to rapid progression of serious illness. According to the WHO reports about 9,571,559 Indians have been confirmed to suffer from Covid-19 and 139,188 deaths has been recorded as of 4th December, 2020.^[2]

The epidemic has resulted in a tremendous loss of health and life and also had a massive psychological impact in individuals of various fields including medical students^[3]. The disruption of scheduled medical training, implementation of online classes, cancellation of face to face tutorials and clinical classes as well as lack of patient contact have added to the mental burden on medical students. The pace at which the community lockdown was implemented and subsequent changes in the medical course has resulted in many students struggling to adjust to the "new normal" of online learning. Apart from changes in the teaching methods, loss of personal interaction and other consequences of the pandemic like financial instabilities have the potential to impact negatively on student well-being and cause psychological distress and disrupt their learning process. Hence it is imperative to actively assess and monitor this to promote student well being and provide appropriate support if needed.^[3]

Studies pertaining to the psychological effects of the pandemic in health care workers have been emerging. However, no detailed study on the mental health status of medical college students in Kerala has been conducted to date. Hence we aim to analyze the psychological effects of the Covid-19 outbreak among undergraduate medical students in Kerala.

MATERIALS AND METHODS

This cross-sectional study was conducted in a tertiary care hospital in Kerala from 14 November 2020 to 28th November for a period of two weeks. Ethical clearance was obtained from the Institutional Ethical Committee. The study was purely voluntary and all MBBS students who were willing to participate in the study were included after obtaining their consent. The questionnaire used for the study was a validated one obtained after getting the consent of the concerned authors. The modality chosen to administer the online survey was via Google forms. The online response form was designed in such a way that no participant could answer it more than once.

The questionnaire consisted of a total of 16 questions of which there were 11 closed ended questions and 5 open ended questions. The questions covered demographic details, past and present mental well being, mental health issues after the breakout of Covid-19 and strategies utilised to cope up with the event. The psychological stress

that they faced following Covid-19 breakout was assessed using the Kessler Psychological Distress Scale (K10).

Statistical analysis was done in SPSS software. The mean and SD of psychological effects of the Covid 19 outbreak among students was computed with 95% confidence. To test the statistical significance of the comparison of stress levels between different years of medical study, ANOVA test was used.

RESULTS

Table 1: Demographics Of Participants

	Frequency (%) n=158
Gender	
Male	54 (34.2%)
Female	104 (65.8%)
Age group	
18 to 20	42 (26.6%)
21 to 23	111 (70.3%)
24 to 26	5 (3.2%)
Phases	
1st MBBS	27(17.1%)
2nd MBBS	23(14.6%)
3rd MBBS	74(46.8%)
4th MBBS	32(20.3%)
Intern	2(1.3%)
Region	
Metropolitan area	78(49.4%)
Rural or regional	65(41.1%)
Interstate	8(5.1%)
International	7(4.4%)

Table 2: Table showing distribution of prior mental health of students and change in level of mental health of the students following Covid-19

	Frequency (%) n=158		Frequency (%) n=158
Depression	6 (3.8%)	No change	51 (32.3%)
Anxiety disorders	10 (6.3%)	Improved	36 (22.8%)
Others	142(89.9%)	Worse	71 (44.9%)

Table 3: Impact of COVID-19 on different areas of life

	Negative impact Frequency (%) n=158	No impact Frequency (%) n=158	Positive impact Frequency (%) n=158
Studies	126 (79.7%)	10 (6.3%)	22 (13.9%)

Relationship with family	55 (34.8%)	25 (15.8%)	78 (49.4%)
Your financial situation	91 (57.6%)	57 (36.1%)	10 (6.3%)
Exercise and fitness	90(57.0%)	26 (16.5%)	42 (26.6%)
Sleep	69 (43.7%)	22 (13.9%)	67 (42.4%)
Diet and nutrition	58 (36.7%)	23 (14.6%)	77 (48.7%)
Social connectedness	88 (55.7%)	26 (16.5%)	44 (27.8%)

Table 4: Table describing concerns about the current situation

	Frequency (%) n=158
Testing positive for COVID-19	65 (41.1%)
Family member testing positive for COVID-19	40 (25.3%)
Friend testing positive for COVID-19	3(1.9%)
Being in self isolation	8(5.1%)
The impact it is that having on your studies	25(15.8%)
Concerns about graduating	9(5.7%)
Financial problems	4(2.5%)
Uncertainty about when things will get back to normal	3(1.9%)
Others	1(0.6%)

Table 5: Table describing resources utilized to overcome the stress

	Frequency (%) n=158
Practicing mindfulness or meditation	51 (32.3%)
Video conversations with friends and families	83 (52.5%)
Social media apps for connectedness	21 (13.3%)
talking to counsellor	02 (1.3%)
Appointment with your Psychologist	01 (0.6%)

Table 6:table Describing The Psychological Distress Scale (k10)

	Frequency (%) n=158
Low	50 (31.6)
Moderate	35 (22.2)
High	38 (24.1)
Very high	35 (22.2)

Table 7 :Table Showing Comparison Of K10 Scores Among Students Of Different Phases

PHASES AND K10 SCORE CROSSTABULATION						
Phase * K10score cross tabulation						
	K10 score	Low	Moderate	High	Very high	Total
Phase 1	Count	8	7	7	5	27
	%within phase	29.6%	25.9%	25.9%	18.5%	100%
Phase 2	Count	2	6	6	7	23
	%within phase	17.4%	26.1%	26.1%	30.4%	100%
Phase 3	Count	28	16	16	14	74
	%within phase	37.8%	21.6%	21.6%	18.9%	100%
Phase 4	Count	10	6	9	7	32
	%within phase	31.2%	18.8%	28.1%	21.9%	100%
Phase 5	Count	0	0	0	2	2
	%within phase	0.0%	0.0%	0.0%	100%	100%

DISCUSSION

The rapid spread of the Covid-19 and its drastic lifestyle changes due to the lockdown have resulted in psychosocial problems amongst all walks of life including medical students. Implementation of online classes helped in preventing course lag to some extent; yet it shares its own drawbacks like lack of face to face communication, interpersonal relationships and anxiety about the future competence as a health care workers.

The prevalence of mental health issues in the study population prior to the pandemic was very low, with 89.9% reporting no prior history of depression or anxiety. But 44.9% of students had worsening of mental health after the onset of the pandemic which signifies the impact of the same. (Table 2) Study conducted by Saraswathy et al among a group of

medical students in India observed similar increase in depression and anxiety following outbreak of Covid-19^[4]. Longitudinal studies done outside India by Li et al and Huckins et al also reported similar findings^[5].

We tested the impact of Covid-19 at various stages of their life. The factors which had a negative impact were studies, financial status, fitness, sleep and social connectedness whereas a positive impact was observed in relationships with family and diet. (Table 3) Lyons et al observed similar findings in their study which lays emphasis on the fact that Covid-19 has decidedly affected the quality of life of the students^[6].

Majority of the students had concerns about turning positive for Covid-19 and the stress busters that were followed included having regular online conversations with family members and friends and few found solace in meditation and social media. (Tables 4 and 5) A study by Ayala et al reported that medical students engaging in self care activities like paying attention to nutrition, exercise, improvement of interpersonal relationships and spiritual growth coped with stressful events in a better way^[7]. At the same time Gao et al perceived that increased usage of social media during Covid times lead to higher incidence of mental health problems^[8]. This has been attributed to the huge amount of misinformation circulating in these platforms.

The K10 psychological distress scale was administered showed low stress in majority of students (31.6%) (Table 6) and varied levels of stress were observed among different phases of medical students. Very high stress was observed in the phase 2 students and interns whereas the other phases showed low levels of psychological stress. Increased stress in interns could be due to the high workload and worry about future prospects. (Table 7) In our study even though males were found to experience more stress than female students it was not statistically significant. This goes in hand with the study done by Sidana et al where a significant difference among gender was not observed^[9].

We had asked for suggestions from the student's about the initiatives that need to be taken by the Medical school to which a few mentioned about the need for a dedicated student counsellor. Few felt that a mental health club should be established through which stress relieving techniques can be taught.

CONCLUSION

To conclude, in this study we have observed a rise in the occurrence of depression and anxiety in medical students following the onset of the pandemic. A negative impact has been observed in the academics, social connectedness, sleep and financial status which are all pointers to poor quality of life of medical students. Overlooking the mental health of medical students can be harmful in the long run as it can affect their future performance as health workers. Therefore, it is important for the psychologists and mental health professionals to monitor and counsel the students and intervene when required.

Declaration of Interest

The authors declare no conflicts of interest.

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