

The Psychological Impact of the Covid-19 Pandemic on the students of Green Life Medical College - A Cross Sectional Study

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Abstract

Introduction: Medical students have faced an enormous disruption to their lives due to the COVID-19 pandemic which directly contributed to the development of psychological distress in them. This can lead to catastrophic consequences such as impaired academic performance, impaired competency and attrition from medical school. This study was done aimed to assess the psychological impact of COVID-19 on students of Green Life Medical College.

Methods: A descriptive type of cross sectional study was carried on students of on-going sessions of Green Life Medical College which had students from 1st year to 5th year. The study was conducted from December 2021 to February 2022 interviewing the respondents face to face with the help of pre-tested structured questionnaire by using Kessler's psychological distress scale. The data was analyzed both manually as well as on computer based software name MS Excel.

Result: According to the study, majority of the respondents were Bangladeshi (81%) and within age group of 20-22 years (66%). About 78% of the students belonged from nuclear family whereas 21% were from joint families. Throwing light on mental health issues of the students it was found that 35% of them were likely to have a severe disorder, followed by mild disorder (23%). Among the respondents, 75% were scared about the daily rise of COVID-19 cases and majority (60%) were scared about the daily rise of COVID-19 death. Insecurity regarding the availability of medical resources during the pandemic played a major role which led to 75% of students to feel so. About 77% students were scared of being infected as well. About 64% of the students showed negativity towards online classes, 58% of them said they found it difficult to arrange notes, 68% and 55% complained about the barriers faced to communicate with teachers and study mates respectively. To cope up with the numerous issues faced during the unfortunate pandemic, 22% used social media, 19% watched television and others involved them in work like religious activities (14%), cooking (10%) etc. A hopeful result was found which showed only 11.46% of the students took sessions for counseling regarding fight against corona related stress.

Conclusion: A significant proportion of students were suffering from severe psychological disorder according to Kessler psychological distress scale. On the other hand, medical students have to deal with patients. So, proper counselling to cope up with corona pandemic and maintaining proper guideline to prevent corona can reduce stress among medical students.

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Introduction:

The psychosocial effects of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), otherwise known as COVID-19 are pervasive and of significant societal concern. Indeed, it is likely that COVID-19 will not only affect the mental health of the population presently, as the pandemic spreads but that the impact may last long into the future. We would expect that many individuals will experience a rise in mental distress symptoms, such as anxiety and depression, during these unprecedented times when populations have been required to drastically change their day-to-day way of life. However, there is further concern that for some, particularly those with pre-existing

vulnerabilities, this rise in mental distress will reach clinically significant levels and in turn affect day to day functioning.¹

For students, COVID-19-related stressors may include health concerns emanating from increases in cases, sequelae of distancing or isolation strategies, and disruptions in starting classes and taking exams. These may lead to feelings of hopelessness, fear of death, and frustration that may grow among students in quarantine. Furthermore, the situation's unpredictability and volatility about when and how to manage the disease and reduce risk may be particularly challenging and demanding. While quarantined and out of the university environment and schedule, students may experience stress, anxiety, anger, boredom, loneliness, and other emotions, with both shorter and longer-term impacts.²

The key objective of this study is to determine the effect of the COVID-19 pandemic on medical students' mental health. Accordingly, it is essential to decide how prolonged college closure, social distancing, and the pandemic affect the psychological wellness status of students. Hence, this study is intended to assess mental health status of medical students and other associated factors that affect their mental health in Bangladesh. It will also attempt to provide some policy suggestions to address the mental health issues of medical students in Bangladesh in general and during crises.

Methods:

It was a cross sectional type of descriptive study conducted from December 2021 to February 2022 among the students of on-going sessions of Green Life Medical College that is from first year to fifth year. About 253 students were selected for data collection by non-probability convenient sampling technique. Data were collected by face to face interviewing of students of on-going sessions of Green Life Medical College that is from first year to fifth year using semi-structured questionnaire which was pretested before data collection. Data were collected on socio-demographic details of the students, mental health changes by using Kessler's psychological distress scale (The Kessler Psychological Distress Scale (K10) is a simple measure of psychological distress. The K10 scale involves 10 questions about emotional states each with a five-level response scale.³ Each item is scored from one "none of the time" to five "all of the time". Scores of the 10 items are then summed, yielding a minimum score of 10 and a maximum score of 50. Low scores indicate low levels of psychological distress and high scores indicate high levels of psychological distress. K10 Score: · 10 - 19

likely to be well · 20 - 24 likely to have a mild disorder 25 - 29 likely to have a moderate disorder · 30 - 50 likely to have a severe disorder)⁴. Additionally data was also collected on life style and behavior changes of students during COVID-19, any negative impact of COVID- 19 on students, perception of students on online medical education, activities and measures used by the students to improve mental wellbeing during COVID-19. After collection of data each questionnaire was checked for inconsistency. The data was analyzed both manually as well as on computer based software MS Excel.

Results:

In table I shown, more than half (66%) of the students' age was between 20 to 22 years and female students (55%), highest proportion (81%) of students were Bangladeshi and from 1st year (38%) whereas majority (78%) of the students were from nuclear family and monthly family income (36%) was between 50000 to 1 lakh taka, more than one third (41%) of the students' fathers were businessman as well as more than half (63%) of the students' mothers were homemaker.

Table-I
Distribution of respondents by socio-demographic characteristics (n= 253)

Variables	Frequency (n)	Percentage (%)
A. Age of respondents in year		
17-19	15	6
20-22	167	66
23-25	66	26
26-28	5	2
B. Gender		
Male	113	45
Female	140	55
C. Nationality status		
Bangladeshi	205	81
Indian	35	14
Nepalese	10	4
Others	3	1
D. Academic year		
1 st year	96	38
2 nd year	40	16
3 rd year	81	32
4 th year	28	11
5 th year	8	3

Table-I (Cont'd)

Distribution of respondents by socio-demographic characteristics (n= 253)

Variables	Frequency (n)	Percentage (%)
E. Type of family		
Nuclear family	197	78
Joint family	53	21
No family	3	1
F. Monthly family income in taka		
<50000	43	17
50000 to 1 lakh	91	36
1 lakh to 2 lakh	81	32
> 2 lakh	38	15
G. Fathers' occupation		
Doctor	25	10
Engineer	28	11
Service holder	66	26
Business	104	41
Others	30	12
H. Mothers' occupation		
Doctor	18	7
Engineer	3	1
Service holder	40	16
Business	8	3
Home maker	159	63
Others	25	10

In Fig-1 shown, according to kessler's psychological distress scale, 35% students had severe mental disorder as well as about 23% students had mild disorder whereas about 21% students had moderate and no disorder respectively.

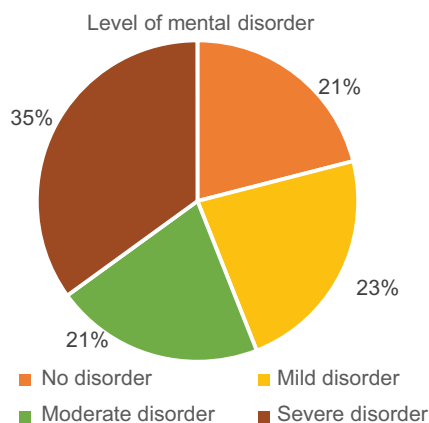


Fig-1: Level of mental disorder

In table II shown, more than half (79%) of the students' behavior was normal to their family and majority (71%) of the students had adequate sleep, highest proportion (83%) of students had good appetite furthermore more than half (76%) of the students maintained hygiene properly.

Table-II

Life style and behavior change during COVID-19 pandemic (n= 253)

Variables	Frequency (n)	Percentage (%)
A. Behavior towards their family members		
Non communicative	35	14
Normal	200	79
Aggressive	18	7
B. Sleeping habit		
Yes	180	71
No	73	29
C. Appetite		
Yes	210	83
No	43	17
D. Maintenance of hygiene		
Yes	192	76
No	10	4
Not always	51	20

In table III shown, more than half (75%) of the students were scared about daily rise of COVID-19 cases and about 60% were scared about daily rise of COVID-19 death where highest proportion (75%) of students felt insecure about availability of medical resources whereas majority (77%) of the students felt insecure about being infected as well as more than half (69%) of the students felt required modifications of strategies to stop spread of Corona virus.

Table-III

Negative impact of COVID-19 pandemic on students (n= 253)

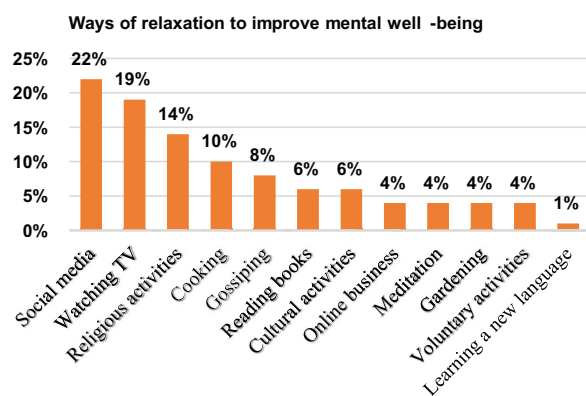
Variables	Frequency (n)	Percentage (%)
A. Feeling about daily rise of Covid-19 case		
Yes	190	75
No	63	25
B. Feeling about daily rise of Covid-19 death		
Scared	152	60
Hopeless	56	22
Anticipate decrease of death	45	18
C. Insecurity about the availability of medical resource		
Yes	190	75
No	63	25
D. Insecurity of being infected		
Yes	195	77
No	58	23
E. Feelings about strategies implemented to stop the spread of Corona virus		
Required modifications	175	69
Adequately implemented	78	31

In table IV shown, majority (64%) of the students felt negative about online class whereas only 20% never faced difficulty in understanding online class, more than half (58%) of the students faced difficulty in collecting lecture notes as well as about 68% faced difficulty in communicating with teachers and majority (55%) of students faced difficulty in communicating with their study mates.

Table-IV*Perception about online medical education (n= 253)*

Variables	Frequency (n)	Percentages (%)
A. Feeling about the online medical classes during Covid-19 pandemic		
Positive	91	36
Negative	162	64
B. difficulty in understanding the online lecture		
Yes	101	40
No	51	20
Sometimes	101	40
C. difficulties in collecting and arranging lecture notes through electronic device		
Yes	147	58
No	106	42
D. difficulty in communicating with their teachers		
Yes	172	68
No	81	32
E. Difficulty in communicating with study mates		
Yes	139	55
No	114	45

In fig-II shown, highest proportion (22%) of the students used social media, 19% watched TV, 14% in religious activities, 10% cooking, 8% gossiping, 6% reading books and cultural activities respectively, only 4% online business, gardening and meditation where 1% learned a new language.

**Fig-2:** Way of relaxation to improve well-being**Discussion:**

In this study among majority of the students were female (55%) followed by male students (45%). However a study in Jordan showed female was 59.9% and male 40.1%.⁵ In our study first year students were 38%, second year students were 16%, third year students constitute 32%. Whereas study in Pakistan showed first year students to be 23.6%, third year to be 24.2% and fifth year to be 18.8%.⁷

The psychological distress score of the students was 21% for likely to be well, 23% have mild disorder, 21% have moderate disorder and 35% have a severe disorder. The study conducted in Jordan said 13.2% for likely to be well, 16.5% have mild disorder, 20.1% have moderate disorder and 50.3% have severe disorder.⁵

As per our study, students with adequate sleep bear 71% and with inadequate sleep was 29%. A similar study carried out in Bangladesh where students who are not satisfied with sleep were 77.3%.⁶ This study had similar result as per ours. When asked about the appetite of students of Green Life Medical College the result of our survey were, students had adequate appetite constitute 83%. On contrary the similar study of Jordan stated there was a huge negative impact on eating habit which was 53.9%.⁵

Our study said that students of Green Life Medical College expressed a negative attitude towards the online classes which was 64%. Another study in Bangladesh University students had similar outcome (61.9%) towards online class during COVID-19.⁶ When asked about the barriers faced by the students of Green Life Medical College like collecting and arranging lecture notes it was 58%. On the other hand a study on students of Jordan due to difficulties in using technologies was 20.8%.⁵

When asked about measures taken to improve mental wellbeing the response was, about 22% using social media, 19% were spending time watching television, 14% were involved in religious activities, 10% did cooking, 4% were interested in meditation and online business. The study on students of Jordan had similar results of spending much time on social media (49%)⁵

Conclusion:

The outbreak of COVID-19 has taken universal toll on almost all aspects of life. First and third year students are affected most in Green Life Medical College. The study showed that a fair number of students suffered from severe psychological distress. We conclude that the anxiety & fear about the daily rise of cases & death, shortage of medical facilities being affected which led to abnormal behavior such as non-communicative as well as aggressive

in some students. This study also depicted negativity towards the online classes & most of the students faced barrier communicating with their teachers & batch mates and collecting their lectures notes. This study found that there were several measures such as meditation, cooking, gardening etc. were taken by the students to improve their mental wellbeing. These consequences of Psychological impact which could be reduced by ensuring proper government support, by increasing extracurricular activities such as cooking, gardening, meditation, reading books, cultural activities, learning a new language. Monthly or weekly online meeting could be arranged by the teacher with students to keep them busy by arranging different extracurricular activities like power point presentations, quiz program, online debate competition, online cultural program etc. from institution beside routine scheduled class, Counseling regarding mental health could be conducted by teachers, parents, friends, social workers even psychologist by online meeting.

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