Brief Communication

COVID -19 Lockdown Anxieties: Is student a vulnerable group?

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Abstract

Background: Students staying safe and comfortable at homes during this lockdown do have much impact on the anxiety levels.

Aim: This study compares the anxiety levels of state in the first year medical students in two situations like few days prior to their scheduled internal examination and during the COVID 19 lockdown period.

Methods: This prospective study involved consenting first year MBBS students. State version of State Trait Anxiety Inventory (STAI – S) was used to assess the level of anxiety through Google forms. The link to the form was given two times to the students in the state of anxiety; first time, a few days prior to the scheduled internal examination and then after 54 days of the COVID 19 pandemic lockdown. The cut-off score of 40 defines probable clinical levels of anxiety.

Results: Response rates were 119 (79.3%) during the first time and 134 (89.3%) the second time. A total of 101 students (67.3%) responded to the STAI-S questionnaire in both situations. The mean anxiety scores were significantly lower in students before the internal examination than that of the COVID -19 lockdown period [(45.70±11.42) vs (47.97±10.80); p – 0.0394]. With cut off value of 40, 65 students were anxious before internal examination while 78 were anxious during the lockdown period.

Conclusions: This study reveals students are a vulnerable group having high anxiety due to COVID – 19 lockdown, which may be due to future academic uncertainties, restricted movement and adjustment with family members. It is essential that students are assessed for anxiety, stress and depression at regular intervals, and active intervention is provided to them in such situations.

Keywords: Medical Undergraduates, India, Pandemic

Introduction

Anxiety among undergraduate medical students is high. Anxiety is shown to be more in medical students than the age-matched non-medical students; this is further high among first year students [1, 2]. A recent systematic review from India shows a pooled prevalence of anxiety among medical students to be 34.5% which varies from 3.3 % to 54.3 % [3]. Though this systematic review reflected the prevalence of anxiety to be high among medical students, it also reported that there are very few studies, which have measured anxiety. A study from a medical university of Odisha showed the prevalence of anxiety to be 66.9 % [2]. The high anxiety reported in medical students is attributed to academic workload, lack of time management, shortage of time to cover courses, timely deposit of assignments, sleep deprivation, and inability to complete the self-set heavy goals by the ambitious students. Also, a sudden change from the school environment to a professional college environment, syllabus, study pattern and time to cope may be the causes for the same. Exposure to internal examination in small intervals also remains one of the reasons for anxiety in these students [4]. Most of the studies have used different anxiety measuring tools like, Depression anxiety stress scale (DASS), Beck Anxiety Inventory (BAI), Hospital Anxiety Depression Scale – Anxiety (HADS – A) and certain self-designed questionnaire to assess anxiety in medical students. Another effective tool like the State Trait Anxiety Inventory (STAI) has rarely been used [5].

The scheduled second internal examination for the first year MBBS students are mentioned in the yearly planner of students in our University. The upcoming internal examination usually creates some amount of anxiety in almost all students a few days before the examination thinking about the completion, of course, balancing study time for each subject and examination proper. We have considered the students who will be appearing for an internal examination which results, in turn, does affect the final examination outcome are in a state of anxiety. Usually, anxiety due to examination remains one of the major reasons for anxiety in medical students.

The sudden outbreak of Corona Virus -19 (COVID -19) globally has made the world to almost standstill. No vaccine, no specific drug treatment and the infectivity of the virus have lead the world experts to suggest social distancing as the foremost measure to prevent the spread of the infection, especially in the initial days of the pandemic [6]. Lockdown is one of the ways how social distancing is being enforced in highly populous countries like India. The social distancing and lockdown have an impact on many factors, education being one of them [7, 8]. Lockdown period of almost 68 days and uncertainty about the future period of lockdown have increased anxiety and uncertainty among people [9]. Students may be into a dilemma regarding their future activities. This situation has indirectly put students into anxious states because of future uncertainties. However, there remains a question if students staying safe and comfortable in their homes during the COVID 19 pandemic lockdown have much impact on the anxiety levels. With this in mind, we thought to compare the anxiety levels of state of first year medical students in two situations like few days prior to their scheduled internal examination and during the COVID 19 lockdown period.

Methods

This prospective observational study was done by the Department of Physiology and Medical Education Unit. After the approval of the Institutional ethics committee, the concept of the

study was explained to all first year MBBS students. State version of State Trait Anxiety Inventory (STAI – S) was used to assess the level of anxiety in all first year medical students through Google forms. The link to the form was given two times when the students were considered to be in a state of anxiety. The first time the link was shared was few days before the scheduled second internal examination, and the responses were noted; these data were collected before mid-February, which was a part of another project of the corresponding author. The second time the link to the form was shared again after 54 days of the COVID 19 pandemic lockdown around mid-May. The STAI – S questionnaire has 20 questions with four options that best describe the intensity of their feelings: (1) not at all; (2) somewhat; (3) moderately so; (4) very much so. Each STAI item is given a weighted score of 1 to 4. Scores for S-Anxiety scales can vary from a minimum of 20 to a maximum of 80. The higher the score, the higher is the anxiety [10]. The cut-off score of 40 has been considered for defining probable clinical levels of anxiety [11, 12]. There is a STAI –T Trait scale which measures general anxiety of individuals when not exposed to any anxious situation. To assess changes of anxiety over time, it is recommended that STAI – S is given on each occasion [10]. We have chosen the STAI – S questionnaire in this study as we measure the anxiety of students in two anxiety situations such as previous to internal examination and during future uncertainty during COVID 19 lockdown period.

Statistical analysis: All the data collected were analyzed using Strata 15.1, StataCorp, Texas, USA. Quantitative data were represented in mean ± standard deviation. The anxiety scores of both the situations were compared using paired t-test. Statistical significance was considered with p-value < 0.05.

Results

Of the total 150 first year medical undergraduate students, 119 students (79.3%) responded during the first time, i.e., prior to their scheduled examination. In the second phase of evaluation

during the lockdown phase due to COVID-19 outbreak, 134 students (89.3%) responded through the Google forms. A total of 101 students (67.3%) responded for the STAI-S questionnaire in both phases. Since both of these phases are related to stress, we have enumerated students on STAI-S. The mean age of the students was of 19.7±0.7 years. Out of 101 students who responded, 64 were female. Of the total respondents, 92% resided in the hostel, 92% had completed schooling in the English language, and 95% of students studied MBBS with their own choice.

Mean scores regarding anxiety level was significantly low in the first phase (45.70±11.42) in comparison to the second phase (47.97±10.80) with a p-value of 0.0394. With cut off value of 40, 65 students were anxious prior to their scheduled examination, while 78 students seem to be anxious during lockdown time. There was no role of gender, place of stay and their language of schooling on the difference in the anxiety level.

Discussion

A recent study suggests there is a moderate level of stress in MBBS students [13]. Anxiety is the body's reaction to stress. Mild anxiety and stress can be somewhat beneficial to students in certain circumstances which keep them alert and aware. It provides a way to overcome unwanted situations too [14]. There are many factors which can cause stress among the first year medical students, which in turn leads to anxiety in them, of which internal examination remains an important cause. This study shows that while 63 of the students were anxious a few days before the internal examination, 78 of them were anxious after 54 days of lockdown. Similarly, anxiety levels were lower in students before the internal examination than that in the lockdown period. A previous study during H1N1 pandemic revealed that anxiety in response to the swine flu was common in a sample of the adult population [15]. Another recent study from India showed about 72 % of participants reported being worried for themselves and their close ones during the ongoing pandemic (COVID 19). The participants in this study were adults

from different parts of India [16]. Anxiety prior to internal examination in this study is obvious in first year students. Surprisingly, the same students in the lockdown period, while staying in the comfort zone of their home with parents and their loved ones, with food of their choice and plenty of leisure time for extracurricular activities, also showed higher anxiety. The participants of the study were also being taught the theoretical portions of the syllabus through synchronous online classes in large and small groups within the comforts of their home.

All these factors should have reduced the anxiety levels of the students during the lockdown period, but it did not happen so; there was detectable higher anxiety in students during the lock down period. Again, it is interesting to find more students have responded in the second time than the first time which may be reflective of more number of students having apprehension during the lockdown period in comparison to the internal examination state. The results of this study express that the students are somewhat anxious for one or more of the following reasons. They may be worried about the uncertain future regarding completion of their courses, unsure examination schedule and pattern which have been disturbed because of the pandemic; their minds may also be fearful about the disease affecting their near and dear ones. For a few students, personal, familial issues may also have contributed to their higher anxiety when they are at home. Adverse interpersonal relationship of students with other family members and adjustment with them at home may have caused higher anxiety too. The students may be agitated as they remain in one place and are unable to meet their friends or go out. The impact of the disease not only has exhausted the people who bear the financial burden but also has indirectly impacted the minds of the younger ones. Though this study does represent a small group of students, they are from different parts of the country, representing the mental situations of all undergraduate medical students. Instead, the authors believe students studying in government colleges may have much more anxiety than that of our sample students because of many reasons. First, students from government institutes may be of different socio-economic

status where finance may be one of the major causes of lockdown anxiety. Second, online classes had not been initiated at most of the government colleges when this study was conducted. Third, some students may have been debarred from continuous internet supply due to interior locations having an impact on their online classes.

This study has a few limitations. First, the baseline mental state or the presence of any pre-existing mental conditions of the students has not been assessed. Second, students from Government Colleges have not been considered, so our results may not be extrapolated to all students. Third, students from other professional years of MBBS have not been considered. Fourth, we have not taken the psychosocial factors of the study participants. But this study is a primordial one which reveals students are a vulnerable group having high anxiety due to COVID – 19 Lockdown. Further research should be done to find out the factors causing stress and anxiety in them during this lockdown and also to identify various coping methods which they adopt to cope with the situation.

To conclude, this study reveals students are also a vulnerable group for the anxious mental state in this lockdown. Authorities of educational institutions should arrange regular counselling sessions for students by the teachers, mentors, seniors during this crisis period. Assessment of anxiety, stress and depression should be done intermittently to find out the more vulnerable students, to resort to active intervention through psychological therapy. Parents of such students should be regularly informed about the conditions of their ward. Different coping mechanisms can be introduced among students to decrease their anxiety levels in a situation like this.

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