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A study on valuation of mental health among the resident doctors, house surgeons, during the corona virus disease-2019 pandemic at Tertiary hospital, Khammam, Telangana

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Abstract

Introduction: Mental health issues among medical students is a well-known fact worldwide, with medical education accounting for one the most stressful of learning environments. As a group, medical students are more anxious and disillusioned than their peers. As the competitive environments become more and more difficult to deal with, mental illnesses and stress are on the rise. There is little attention paid to the mental health of doctors. This study assesses the intellectual fitness of clinical professionals at some stage in the COVID-19 by using a general health questionnaire. The Incidence of mental health conditions is estimated, and associations between mental health status and different demographic variables are studied.

Aims and Objectives: The aim of this study is to assess the mental status of medical health professionals at Mamata medical college during the COVID -19 Pandemic.

Materials and Methods: A questionnaire-based, cross-sectional study. A general health questionnaire with 28 items (GHQ-28) was adapted to Google Forms and circulated among 105 healthcare professionals from Mamata Medical College, Khammam. The questionnaire is split into four parts by the factor analysis. Questions Q 1 to Q7 regards somatic symptoms, Q8 to Q14 denote anxiety/insomnia, Q15 to Q21 signifies social dysfunction, Q22 to Q28 is for depression. The survey responses were collected for a period of 6 months from February 2, 2021, to July 5, 2021.

Results: P-value was significant for Anxiety when compared among the male and female participants which signify that females were more prone to anxiety than male, as the female participants scored a GHQ score of >23 more than male.

Conclusion: Mental health issues are frequent among medical professionals, which may be aggravated now during the COVID-19 pandemic. The factors such as uncertainty caused by pandemic, female sex were associated with increased intensity mental health issues, specifically more prone towards Anxiety.

Keywords: Mental health valuation, medical professionals, covid-19, tertiary hospital

Introduction

Mental health issues among medical students is a well-known fact worldwide, with medical education accounting for one the most stressful of learning environments. As a group, medical students are more anxious and disillusioned than their peers, and mental health disorders are increasingly prevalent^[1,2]. As the competitive environments become more and more difficult to deal with, mental illnesses and stress are on the rise along with years of training^[3]. However, heavy workloads and exam anxieties may be essential for all round growth and development, but they result in exhaustion, decreased sleep, and have a detrimental effect on academic performance^[4,5].

There has been a disturbingly increase in the suicides of doctors and medical students in recent years. There is little attention paid to the mental health of health care professionals, despite growing evidence that this group is far more likely to suffer from mental disorders compared to other professional groups^[4]. There is also a stigma attached to mental health issues among medical students, which is caused by multiple factors such as fear of being unfairly appraised by their faculty, diminished admiration among their peers, or perceived weakness in handling responsibilities^[6]. It is also observed that medical professionals are more like than others to abuse substances and that these habits are usually new and last longer^[7]. A medical student's well-being during medical school is necessary since they will be future healthcare providers.

The recent severe acute respiratory syndrome coronavirus pandemic has had a profound effect on the mental wellbeing of its victims [8,9]. As a critical measure to halt the spread of coronavirus disease 2019 in India, the government announced a nationwide lockdown in March 2020. In addition to the health effects of the pandemic and lockdown, the psychosocial effects of trauma have been observed among medical professionals, resident doctors, and House surgeons.

Uncertainty and uneasiness have unfolded with inside the scientific pupil community, who've no longer been uncovered to the lecture room or medical enjoy for nearly three months because of the lockdown restrictions. Ambiguity approximately the future, in particular on the subject of examinations, curriculum, advertising to the subsequent semester, graduation of internship, aggressive examinations, and locating employment, is in all likelihood to worsen any pre-current intellectual fitness troubles with inside the scientific pupil, including to the emotions of anxiety, and self-doubt. This look assesses the intellectual fitness of clinical fitness professionals, residents, and residence surgeons at some stage in the COVID-19 pandemic by using a general health questionnaire (GHQ). The Incidence of mental health conditions is estimated, and associations between mental health status and different demographic variables are also studied.

Methodology

This is a cross-sectional study designed at a tertiary-care teaching hospital in Khammam, Telangana. The sample size was calculated taking prevalence value = 50%, $\alpha = 0.05$, 95% confidence interval, and precision = 4%, and the minimum required sample size was taken as 60. This study included a sample of 105 medical resident doctors and house surgeons at Mamata Medical College, Khammam, Telangana. The GHQ-28 was adapted to Google Forms and administered to the medical professionals at Mamata medical college. The survey was circulated extensively across Mamata medical college, and the responses were collected for a period of 6 months from February 2, 2021, to July 5, 2021. Along with the survey replies, informed consent was collected, and confidentiality considerations were explained to all survey respondents. Surveys with missing or incomplete responses were disqualified. The questionnaire is divided into four parts by the factor analysis. Somatic symptoms are covered in questions 1 to 7, anxiety/insomnia is covered in questions 8 to 14, social dysfunction is covered in questions 15 to 21, and depression is covered in questions 22 to 28. As a result, a score for somatic symptoms, anxiety/insomnia, social dysfunction, depression, and overall GHQ score is calculated. The total score and each of the four sub-scores was handled as continuous measures and evaluated for correlations with other variables.

For the GHQ-28, a Likert scale ranging from 0 to 3 was used to represent "not at all," "no more than usual," "somewhat more than usual," and "much more than usual." The total score ranges from 0 to 84. Since its inception, the GHQ-28 has been translated and validated in over 38 different languages, with the English version being used in this study. To determine an abnormal GHQ score, we chose a cut-off value of >23. The Cronbach's alpha of reliability for the GHQ-28 has been reported to vary from 0.78 to 0.95 [10, 11].

Statistical analysis

Sciences, Version 20 (IBM Corp., SPSS statistics for windows, Armonk, NY, USA) [12] for Windows (version 21) and Microsoft Excel 2010. Categorical variables were analysed with the Chi-square test. Statistical significance levels for all analyses were set at the $P = 0.05$.

Results

This study included 105 medical professionals including House surgeons and Resident doctors practicing in different clinical departments, working at Mamata Medical College, Khammam, Telangana. The mean age for the study sample is 25.28 years, there were 43 males and 62 females at a total of 105 medical professionals out of which 17 were male House surgeons and 35 female house surgeons, 26 were male residents, and 27 were female residents. In this study, 70 participants have scored >23 GHQ score. Females were shown to have a higher GHQ score >23 than the male participants. To analyze the link between GHQ 28 score and male and female residents and house surgeons, a correlation coefficient was calculated. But statistically insignificant p-value emerged that is 0.57, as the p-value is taken as <0.05, Chi-square statistics with Yates's correction is 0.0138, the p-value is 0.71 which is not significant at $p < 0.05$.

The GHQ is partitioned into four parts by the factor analysis. Somatic symptoms are covered in questions 1 to 7, anxiety/insomnia is covered in questions 8 to 14, social dysfunction is covered in questions 15 to 21, and depression is covered in questions 22 to 28. These individual scores were compared among the male and female participants out of whom the p-value was not significant for Somatic, Social dysfunction, and Depression. But p-value was significant for Anxiety when compared among the male and female participants which signify that females were more prone to anxiety than male participants, as the female participants scored a GHQ score of >23 more than male participants.

	Male	Female
Somatic symptoms	SD=3.64 Mean=5.88	SD=4.12 Mean=6.95
Anxiety* (Significant p value equals 0.0122)	SD=4.3 Mean=6.69	SD=5.18 Mean=9.14
Social dysfunction	SD=3.49 Mean=9.25	SD=2.98 Mean=9.33
Depression	SD=4.18 Mean=4.04	SD=4.88 Mean=5.3

The two-tailed P value equals 0.0122.

By conventional criteria, this difference is considered to be statistically significant for Anxiety among the male and female participants.

Discussion

Several conclusions emerged from this study of psychological morbidity among medical health workers during the COVID-19 pandemic. A whopping 60% of participants had an abnormal GHQ score, which was significantly higher than prevalence rates reported by other authors in similar research in India and around the world [13-15]. Medical training-related distress is a well-known occurrence that is linked to the profession's complexity and challenges. In today's world, medical competition is at an all-time high, and failing to compete against 100,000s of others comes at a high price. The awareness that the epidemic is here to stay has set in, with the majority of

participants expecting the pandemic to harm them for at least another six months. Almost one-third of participants felt very unpleasant and worried about their careers and future as a result of the epidemic, according to this study, and these people were twice as likely to score higher on the GHQ scale. Females were also found to be two times more likely than males to experience mental health difficulties in this study. As expected, and demonstrated in other studies, females may experience higher degrees of psychological distress due to a diminished sense of coherence and less social support^[13, 16]. The necessity of early intervention and an open culture that allows for the airing of personal grievances and problems has been demonstrated by this study. A learning environment that penalizes a student for poor performance is counterproductive and does not encourage personal growth. On the other hand, the medical profession necessitates a great deal of patience and perseverance, and a medical student can achieve this aim with the help of sympathetic professors. Mentorship initiatives between faculty and students, as well as the mandated hiring of qualified counsellors in medical schools, are both positive steps. Yoga, meditation, and mindfulness have all been thoroughly researched as ways to relieve stress and anxiety^[17, 18]. The widespread use of these modalities for the psychological well-being of medical students could be beneficial and is urgently needed if we want our future generations' health to be in skilled hands.

Conclusion

Mental health issues are very common among medical professionals, which may be aggravated now during the COVID-19 pandemic. Factors such as pandemic uncertainty and female sex were linked to higher mental health problems. Even if the pandemic is not a stressor, guidance and counseling, as well as intervention at the individual, group, and community levels, are nevertheless necessary for medical professionals' overall growth. More research using a variety of techniques to assess mental health may be necessary.

Limitations

Because this was an open survey of medical professionals at Mamata Medical College in Khammam, a systematic sampling approach was used. The GHQ-28 was only one measure used to assess mental health in this study, and it may not adequately reflect the whole picture. While uncertainty caused by the COVID-19 pandemic was highly linked to mental health problems in this study, it was unable to ascertain how much of these issues were pre-existing in order to establish a cause-and-effect relationship between the pandemic and mental health problems.

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