Original Research Article

Mental health of doctors: A preliminary online survey during the current pandemic

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ABSTRACT

Background: Corona virus disease 2019 pandemic (COVID-19), has posed significant mental health challenges. Psychological morbidities among Indian doctors has not been extensively examined. In order to plan appropriate interventions, it is imperative to know the details of the mental health condition of our doctors especially so during this period of enormous physical and mental challenges brought by the current pandemic.
Methodology: The present findings, are from an online survey done to briefly assess the mental health status of doctors. The survey was done, through a questionnaire, generated by the authors, from items of Mini International Neuropsychiatric Interview (MINI) version 6.
Results: A total of 274 responses were received and 242were analysed. Mean age of the participants was 37.21 Years (SD = 10.70). 61.98% of the participants were males. 42.14% were resident doctors, 44.21% were faculty members. Majority of the doctors reported having some psychiatric symptom. Only, 0.83% reported having suicidal ideation. None of the participants were planning to seek a psychiatric consultation, in near future, for the psychiatric problems. There was a positive correlation of psychiatric symptoms, with exposure to COVID-19 duties.
Conclusions: Doctors have higher psychological morbidities, but due to various reasons are not willing to address the severity of their symptoms nor are they acknowledging the need for intervention. There is an urgent need, for acceptance and acknowledgement of the psychological problems being faced by this highly demanding, vulnerable population, especially so during the present crisis.

Keywords: Mental Health Survey; Doctors; COVID-19; Pandemic; Psychiatric morbidity.

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INTRODUCTION

Beginning from, a few isolated, unexplained, cases in China the Corona virus disease 2019 (COVID-19),has shown an expeditious growth pattern. It was declared a pandemic, by the World Health Organization (WHO) on 11th march 2020 [1]. This pandemic, has brought unprecedented challenges for the entire mankind, on the front of health, economy, socially and politically. Apart from the primary morbidity, due to the viral infection secondary issues related to physical and mental health have also emerged, enormously [2]. Doctors being a special population, as a result of their occupational exposure to infection, increase workload, and overwhelmed health care system, are vulnerable to higher psychological morbidities [3]. During the pandemic, medical doctors irrespective of their specialities are being posted for duties in the COVID outpatient, inpatient services and Intensive care units, in their Institutions. The data on mental health status of medical doctors is sparse, let alone during this pandemic period [4]. This study, was planned

to know the magnitude and nature of the mental health problems, if any, being faced by the medical doctors, and to plan the appropriate interventions. This is an ongoing on line survey, of which we are presenting the preliminary findings, so as to take the urgent appropriate steps and to make the professionals realise the need to be fit, both physically and mentally.

METHODOLOGY

The study was a cross sectional, online survey. A semi-structured questionnaire, was developed using Google forms along with a consent form appended to it. The link of the questionnaire, was sent through e-mails, WhatsApp and other social media platforms to the medical doctors in contact with the investigators. The participants were encouraged, to roll out the survey to the medical doctors in their contact, through a snow ball technique. Thus, the link was forwarded to doctors apart from the first point of contact and so on. On receiving and clicking the link the participants got auto directed to the information about the study and the consent form. On accepting to participate, the respondents filled up the demographic details and a set of sequential questions were answered. The data collection, was initiated on 1st July2020 till 1st December 2020. The study was approved by ethical committee of the Institution.

Socio-Demographic Details

Initial questions were related to collect the socio-demographic details like age, gender, designation, affiliations and speciality. Medical doctors may or may not be posted for COVID-19 duties depending on their designation, speciality and health status. So accordingly, three options were kept for the question assessing their involvement in care of actual or suspected cases of as- COVID duties done, not done but expecting to be posted sooner or later in the same and not done and neither expecting to be posted in it.

Assessment of Psychiatric symptoms

In the beginning, the participants were asked to rate a change in status of their current general mental health condition. Thereafter the subsequent questions, assessed psychiatric symptom of common mental illnesses namely depression, suicidal ideation, generalised anxiety disorder, panic disorder, and post-traumatic stress disorder. Question to assess for dysthymia were included to differentiate between ongoing and cross-sectional low mood, which might have been there prior to the pandemic period. However, inclusion of dysthymia served to exclude an ongoing mental health morbidity and was not a part of the final analysis. The concepts, for the method of questionnaire development were taken from Tourangeau and Yan [5], 2007. The questionnaire included routine standard questions for screening of the common mental disorders and were from Mini-International Neuropsychiatric Interview (MINI) version 6 [6].

Need to visit a Psychiatrist

Concluding question, was related to the respondent's self-assessment for psychiatric consultation/counselling for their reported problems and their desire to seek help for the same, immediately or in the near future.

Scoring of the responses

The answers were rated on a Likert scale in 'yes', 'may be' or 'no', format. For scoring, both 'yes' and 'may be' response were taken as positive and yes was marked definitive (De) and 'may be' was marked ambivalent (Am) for the symptom. For calculation of mean scores, 'yes' was scored 3, 'may be' 2, and 'no' 1.

Statistical Analysis

Descriptive statistics, was used for the analysis of socio-demographic variables, need to visit the psychiatrist and psychiatric symptoms. Normality of the data, was assessed using 'Shapiro-Wilk' test. The scores of the psychiatric symptoms, were expressed as mean and standard deviation. Univariate Linear Regression, was used to test the association between the variables and all the tests, were two-tailed with a significance level of $p< 0.05$. Statistical analysis was performed using SPSS Statistic 22.0 (IBM SPSS Statistics, New York, United States).

RESULTS

A total of 276 responses were received, out of which 34 responses, had at least one item missing hence they were excluded from the analysis.

Socio Demographic Characteristics

Mean age of the participants was 37.21years (SD =10.70;range23-65).61.98% of the participants were males, 42.14% were resident doctors (DESG-R), 44.21% were faculty members (DESG-F) and 13.63% belonged to others category(included post-doctoral scholars working in hospital setting, private practitioners and medical officers). 38.43% had done COVID-19 duties (CD-D), 22.31% had not done COVID-19 duties, however were expecting to be posted in future (CD-ND-E) and 39.26% had not done COVID-19 duties nor were expecting to be posted (CD-ND-NE)(Table 1).

Psychiatric Symptoms

For change in mental health condition (CHMC),positive response was seen in 64.47%(De-8.68%, Am-55.79%) of the participants. Better than before response was seen in 3.72%. Regarding psychiatric symptoms-Depression(DEP)positive response was seen in 37.19%(De-6.20%, Am-30.99%), Dysthymia (DYSTH)positive response in 23.56% (De- 6.20%, Am-17.36%), Suicidal ideations (SUI) positive response in 0.83% (De-0.83%), Generalised anxiety disorder(GAD)positive response in 52.06% (De- 28.51%, Am-23.55%).Panic disorder (PAD)positive response in 22.32% (De- 12.40%,Am-9.92%) and for Post-traumatic stress disorder (PTSD)positive response was seen in 14.88% (De- 8.68%, Am-6.20%) (Table 1).

Need to visit a Psychiatrist

Need for seeking a psychiatric consultation (PA),positive response was seen in 20.66% (De-0.83%, Am-19.83%) (Table 1). Among the participants who gave a positive response none were willing to do so, sooner or later.

Table 1: Distribution of the definitive and ambivalent responses of the Psychiatric symptoms and the need to visit a Psychiatrist according to Socio-demographic variables

Variable	F N=92 (38.01%)	M N=150 (61.98%)	R N=102 (42.14%)	Fa N=107 (44.21%)	O N=33 (13.63%)	D N=93 (38.42%)	E N=54 (22.31%)	NE N=95 (39.25%)
				N (%)				
CMHC								
De	9(9.78%)	12(8%)	6(5.88%)	9(8.41%)	6(18.18%)	9(9.67%)	3(5.55%)	9(9.47%)
Am	45(48.91%)	90(60%)	69(67.64%)	54(50.46%)	12(36.36%)	54(58.06%)	33(61.11%)	48(50.52%)
Better	3(3.26%)	6(4%)	3(2.94%)	6(5.60%)	0	6(6.45%)	0	3(3.15%)
DEP								
De	6(6.52%)	9(6%)	3(2.94%)	6(5.60%)	6(18.18%)	9(9.67%)	0	6(6.31%)
Am	30(32.60%)	45(30%)	45(44.11%)	21(19.62%)	9(27.27%)	21(22.58%)	27(50%)	27(28.42%)
DYSTH								
De	3(3.26%)	12(8%)	3(2.94%)	12(11.21%)	0	6(6.45%)	6(11.11%)	3(3.15%)
Am	18(19.56%)	24(16%)	30(29.41%)	9(8.41%)	3(9.09%)	12(12.90%)	15(27.77%)	15(15.78%)
SUI								
De	0	2 (1.33%)	1(0.98%)	1(0.93%)	0	0	1(1.85%)	1(1.05%)
Am	0	0	0	0	0	0	0	0
GAD								
De	24(26.08%)	45(30%)	36(35.29%)	24(22.42%)	9(27.27%)	15(16.12%)	21(38.88%)	33(3.73%)
Am	24(26.08%)	33(22%)	27(26.47%)	24(22.42%)	6(18.18%)	27(29.03%)	6(11.11%)	24(25.26%)
PAD								
De	12(13.04%)	18(12%)	24(23.52%)	3(2.80%)	3(9.09%)	15(16.12%)	9(16.66%)	6(6.31%)
Am	9(9.78%)	15(10%)	12(11.76%)	12(11.21%)	0	18(19.35%)	0	6(6.31%)
PTSD								
De	9(9.78%)	12(8%)	15(14.70%)	6(5.60%)	0	3(3.22%)	12(22.22%)	6(6.31%)
Am	3(3.26%)	12(8%)	9(8.82%)	3(2.80%)	3(9.09%)	9(9.67%)	3(5.55%)	3(3.15%)
PA								
De	1(1.08%)	1(0.66%)	1(0.98%)	1(0.93%)	0	0	1(1.85%)	1(1.05%)
Am	21(22.82%)	27(18%)	24(23.52%)	18(16.82%)	6(18.18%)	15(16.12%)	12(22.22%)	21(22.10%)

CMHC (Change in Mental health condition), DEP(Depression), DYSTH(Dysthymia), GAD-(Generalised Anxiety disorder), PAD(Panic disorder), PTSD(Post traumatic stress disorder),M (Male),F(Female), Fa(Faculty), R(Resident), O(Others), D (COVID Duty Done), E(COVID duty not done but expecting to do), NE (COVID duty not done neither expecting to do), De(Definitive yes as the response to the question), Am (May be) as the response to the question

Association of Socio-demographic variables and Psychiatric symptoms

Univariate linear regression, showed that DEP was significantly associated with age (p=0.005), Fa (p=0.006) and PA-De (p=0.010). GAD was significantly associated with D (p=0.007) and PA-Am (p<0.000). PAD was significantly associated with R (p=0.002), D (p=0.001), and PA-Am (p<0.000and PTSD was significantly associated with R (p=0.013), E (p=0.001), PA-P (p=0.036) and PA-Am (p<0.000) (Table 2).

Table 2: Association between socio-demographic variables, need to visit a Psychiatrist and the psychiatric symptoms. (Univariate Linear Regression)

Variable (Mean ± SD)	CMHC Mean ± SD (1.84±.729)	DEP Mean ± SD 1.43±.609)	GAD Mean ± SD 1.81±.854)	PAD Mean ± SD (1.35±.690)	PTSD Mean ± SD (1.24±.596)
Age (37.222 ±10.726)	.014, -.120 (-.245-.006), 0.063	.032, -.178 (-.303-.-.053), **.005***	.001, .033 (-.093-.160), .605	.012, -.107 (-.234-.019), 095	.000, -.006 (-.133-.121), .930
F	0.004, -.065 (-0.192-.062), .314	.001, .029 (-.098-.157), .652	.000, -.021 (-.149-.106), .742	.000, .013 (-.114-.141), .838	.000, -.010 (-.137-.118), .882
Fa	.005, .078 (-.118-.273), .434	.049, -.268 (-.461- -.076), **.006***	.028, -.032 (-.225-.162), 0.747	.089, -.010 (-.197-.178), .918	.045, .041 (-.151-.233), .672
R	.005, .105 (-.090-.300), .290	.039, -.111 (-.303-.081), .257	.028, .141 (-.052-.334), 0.415	.089, -.291 (.104-.479), **.002***	.045, .242 (-.051-.434), **.013***
D	.020, .119 (-.020-.258), .093	.003, .007 (-.133-.148), .921	.033, -.191 (-.329- -.052), **.007***	.044, .231 (.093-.368), **.001***	.057, .003 (-.134-.140), .968
E	.020, -.038 (-.177-.101), .587	.003, .061 (-.079-.202), .391	.033, -.029 (-.167-.110), .685	.044, .087 (-.051-.225), .214	.057, .240 (.103-.376), **.001***
PA-De	.031, .089 (-.036-.214), .162	.038, .165 (.040-.289), **.010***	.137, .038 (-.081-.155), .532	.146, -.029 (-.146-.089), .631	.092, .130 (.008-.252), **.036**
PA- Am	.031, .154 (.028-.278), **.016***	.038,.113 (-.012-.237), .077	.137,.370 (.251-.487), **<.000***	.146, .380 (.261-.496) **<.000***	.092, .279 (.157-.400), **<.000***

**p-value is significant at ≤0.05 (two tailed), CMHC- Change in Mental health condition, DEP-Depression, DYSTH-Dysthymia, GAD-Generalised Anxiety disorder, PAD-Panic disorder, PTSD-Post traumatic stress disorder, F-Gender Female, Fa-Designation Faculty, R-Designation Resident, D-COVID Duty Done, E COVID duty not done but expected to do, PA-De-yes as response to need to visit a psychiatrist, PA-Am- may be as response to need to visit a psychiatrist*

DISCUSSION

The survey was carried out to assess the mental health condition, of the doctors in the current scenario of the pandemic. We have assessed for symptoms of common mental health conditions, namely stress, depression, dysthymia, suicidal ideation, generalised anxiety disorder, panic disorder, post-traumatic stress disorder and self-perceived need to seek a psychiatric consultation for the same. The overall response rate was low, which coincides with other survey-based studies among doctors [7]. Multiple factors like a busy schedule, disinterest and stigma related to psychiatric disorders could explain a low response rate.

There was a high prevalence of psychiatric symptom among the doctors, who responded to the study. Studies done prior to the pandemic reported a lower prevalence of stress ranging from 24.24% to 40%, Depressive symptoms from 24.8% to 30.8%, Anxiety disorders between11% to 34% [7-14] among resident doctors and consultants. A study which assessed the mental health of doctors, in critical care unit (CCU) also reported a lower prevalence of stress, at 40%, this despite the common perception of CCU being a high stress function area [15]. Studies done during this pandemic period reported, a similar finding to the present study of stress at 63% among Orthdepedics [16]. A review of studies during COVID-19 pandemic noted depression prevalence of 22.8% among all health care workers [17]. One study found a higher prevalence of stress than our study at around 79%, among all medical doctors [7]. Doctors seem to have much higher prevalence of psychiatric disorders compared to general population where prevalence of depressive disorders was 2.68% [18], and anxiety disorders3.41% [19]. The study, shows that during this pandemic period anxiety rates have

significantly increased than rates of depression among doctors before the pandemic period. The current situation of the pandemic is also associated with disruptions like lock down and isolations which could have contributed to an increase in stress and other psychological morbidities, among doctors. Besides the increased Stress can have independent impact on a person's life [19].

In the present study depressive symptom, were positively associated with increasing age and being a consultant. Previous studies on the subject reported an association of depression with younger age, being a resident doctor and undergraduate medical students [20]. The morbidity and mortality associated with having COVID 19 infection at higher than younger age may have, contributed to stress and depression among senior doctors.

In the present study, only 0.83% medical doctors reported having suicidal thoughts. This is lower than rates generally described in other studies involving the doctors 14% by Caplan et al. [22] and 16.7% by Grover et al. [7]. According to National mental health survey of doctors and medical students done in Australia; thoughts of suicide were significantly higher in doctors (24.8%) compared with the general population (13.3%) and other professionals (12.8%). A review found the risk of suicide among doctors to be 5 to 7 times more than that of the general population [23]. Given the high prevalence of depressive and anxiety symptoms reported in the present study the rates of suicidal ideation do not match, this needs further examination for the possible reasons. One explanation could be the stigma attached with reporting these thoughts [23]; however, the identities of the respondents were not known to the authors, so this point needs a detailed evaluation.

For those doctors who had done,Covid-19 duties symptoms of generalised anxiety and panic disorder were higher than those who had not done and were expecting to be posted for the COVID 19.The explanation, could be a fear of infection among the doctors exposed to positive cases. PTSD symptom was associated with having not done the COVID-19 duties but awaiting the same, possibly due to the tremendous perceived stress, by the doctors.

Some of the respondents reported a need to seek a professional psychiatric consultation but none of doctors planned to do so in the near future. Despite of high reports of psychological problems by the study subjects there was low desire to seek professional psychiatric help. Doctors are known to be casual about their own health, and when psychiatric illness are concerned recognising and treatment seeking is lower among doctors [7, 24-25].

The present study is one of the initial studies, done from India in the current pandemic period. It attempts to provide the data to recognize, and plan the need for appropriate interventions for doctors suffering from psychological symptoms. The survey is ongoing and we aim to get a larger sample in order to assess the mental health of medical doctors and plan steps accordingly.

The current study has certain limitations. Firstly, the response rate has been low, secondly, self-reporting questions suffer a high degree of subjectivity, thirdly the psychiatric morbidity in some cases could be the result of other ongoing psychosocial factors which are unrelated to the current situation, this could not be differentiated by the study questionnaire, fourthly the present survey is a cross-sectional assessment and lacks a longitudinal perspective. The need to give socially appropriate answers could also have had an impact on the responses.

CONCLUSION

A significantly higher proportion of doctors in India experience stress, depression, anxiety disorder and post-traumatic stress disorder. These problems have significantly increased during COVID-19 Pandemic. Doctors are reporting less suicidal ideations while the likelihood of their presence may be higher. Despite the presence of high psychological morbidities there is a reluctance to seek psychiatric or professional help. Teaching the medical professionals' skills of stress management and addressing the issue of stigma associated with mental disorders should be undertaken for a proper management of mental health of this group. Medical doctors need to be alert and willing to accept their psychological problems so as to avoid serious consequences like suicide and burn out. Policy makers need to take an urgent note of these issues.

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