

A STUDY TO EVALUATE THE PERCEIVED STRESS AMONG INDIAN DOCTORS COMBATING THE COVID-19 PANDEMIC

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ABSTRACT: The nation is going through the second wave of corona virus, where all the people of the country are staying at their homes and praying for their wellness, doctors are working at corona wards for the safety of the people. Lack of personal protective equipments (PPE), unable to help some patients who are waiting outside the emergencies as the beds are as of now loaded up with the limits. Patients are passing on in light of the fact that the hospital organizations can't assist the patients with the proper oxygen supply, consistently every second minute we hear the news of an individual, some are dying at the ventilators and another are dying because they are not able to find oxygen cylinder. The cremation grounds have no space for the last ceremonies of the dead bodies, relatives are sitting tight in lines for the last customs of their loved ones and in these critical situations doctors are working tremendously, to get infected or to bring infection at their homes, the fear of losing their near and dear ones, the feeling of helplessness in front of their patients are always in their minds. The present study was led with the aim to assess the stress among clinical specialists in India who are working during Covid-19. A comparative analysis of the level of stress among male and female specialists was also conducted. The data was collected online using Perceived Stress Scale (PSS) through Google-docs and Type-forms. The results found that 63% of doctors experience moderately high perceived stress and the female doctors scored more on stress in comparison of male doctors, which defies considerable level of stress at the hospitals. The study points towards the need of interventions at the workplaces of the doctors to help them coping-up with their mental stress.

Index Terms- Covid-19, Stress, Doctors.

BACKGROUND OF THE STUDY

Coronaviruses are a large group of contaminations known for containing strains that can cause perhaps deadly illnesses in birds or animals. In humans they're generally spread through airborne drops of fluid conveyed by contaminated people.

The most well-known side effects of COVID-19 are dry cough, fever, sluggishness, anosmia and hyposmia. Some patients may have diarrhea, body-ache, nasal clog, runny nose or pharyngitis. The symptoms are regularly mild and start gradually. A couple of individuals become infected anyway don't develop any inconvenient symptoms and even don't feel unwell. WHO report says numerous individuals (about 80%) recover from the illness without requiring uncommon treatment. Around 1 in every 6 people who gets infected from the virus ends up being really sick out and makes inconvenience saturations. Continuously settled people, or those having any co-morbidities like hypertension, diabetes or cardiovascular disease, will without a doubt make authentic affliction. Individuals with fever, cough and inconvenience breathing should look for clinical treatment.

The novel corona viruses (COVID-19) began from Wuhan, China. From that point forward it has influenced a big portion of the countries and landmasses in light of its fast spread. This infection was pronounced a public health emergency situation by WHO followed by statement of a pandemic status in March, 2020. The nation is battling with a subsequent wave, raising more feelings of dread about its overpowered medical services framework. Numerous people are waiting outside the medical clinics in big cities as the hospitals are filled with capacities. Various people are died while waiting for oxygen. This pandemic situation is as worst as about each passing seconds we hear about death of a person. At this time when all the people are restricted themselves at their homes with fear and praying for their wellness, the medical professionals are working and dealing with the bleeding edge at their hospitals tremendously. They experience the serious mental health illnesses results which might be ascribed to incredibly long working schedules, heavy work-loads, and inadequate stock of personal protective equipments (PPE) supplies, the dread of getting infected, unable to see their families, over-reporting by varying media and web-based media, and different news channels and high rate of contamination among the handling staff, and the violence against the medical staff of each passing hour.

Limited available data from India and creating mental well being in the hospitals, there must be a need to assess emotional wellness among clinical specialists. Improving the understanding of psychological issues among specialists can help in modifying the systems regarding the hours of work of doctors. The study expected to evaluate the mental pressure among specialists working in different medical clinics or hospitals in India during COVID-19.

Psychological Pressure at work during COVID-19 -

"After given training," they said, "experts were fused into the bleeding edge battle against COVID-19. Besides, it was unreasonable to set up separate isolated rooms including a vestibule and cleaned zone because of lacking of gears once the hospitals immediately transformed into an allotted COVID-19 hospitals."

"Health workers should be prepared with whole-body defensive gear under bad pressure for approx more than half of a day, including twofold layer protective gear, triple layered face covers, twofold layered of gloves, isolation tops with foot covers, and guarded glasses."

"To stay away from being contaminated while evacuating defensive gear, health employees cannot drink a sip or take a meal or unable to use the restrooms during their working times. Some of them are dried out in view of over the top sweating, while many of them make cystitis and a rash". (Medicalnewstoday)

Females in the medical care appear to be enduring mental stress and burnout in this pandemic, disproportionately when in the comparison with men, recommends another preprint research paper distributed on the medRxiv* worker. Females are confronted with more critical burdens in such a circumstance. They are as yet compelled to bear or challenge prior work environment issues, for example, gender bias or discrimination, sexual harassment and different imbalances, yet they make up 75% of the health workforce. Female specialists are now depression prone and endure more burnout and report more self-destructive contemplations comparative with their male partners. Moreover, they do substantially more work random to their expert duties, for example, nurturing and providing care, contrasted with men – by and large, this is 2.5 times greater and harder.

Findings from the researches over the world suggest that medicinal experts especially employees, interns or residents are slanted to making mental health problems, for instance, mental stress, apprehension, and substance abuse. (Mavroforou A, et al.)

It has been found further that work pressure is consistently associated with energetic exhaustion, which can incite the lack of excitement of work or feeling powerless, caught and crushed. (Romani M, et.al.) Frequently uncovered work stressors among specialists are those normal for the action, and those who belongs to steady asks for, feeling overburdened, related to occupations inside the affiliation, and those who associated at their workplaces and career development.(Tür Fç, Toker I, et. al.)

Researches on the psychological problems looked by doctor is obliged to barely any the country over audits and some specific emergency facility overviews. A huge public outline of 2584 specialists from Canada showed that both the genders experienced raised degrees of mental pressure, which was connected with decreased levels of satisfaction with their private practice. (Richardsen AM, et.al.) A research found, 524 doctors from the UK where residents and senior clinical staffs uncovered that almost 27% of the experts scored in the extent of melancholy. In this manner, a research of 50,000 specialists and residents from Australia displayed an extended recurrence of outrageous mental hopelessness close by a 2-crease extended event of self-destruction ideations in specialists differentiated and general population. A Survey from Australia (2011), information suggest that psychological burnout and morbidities among doctors are consistently associated with progressively clinical bumbles and helpless patient outcomes. (Barger LK. et al.,)

Very few researches from India have surveyed mental health issues, burnout and psychological stress among doctors. These assessments have been generally limited to interns and residents, with barely any examinations focusing on residents or experts. Studies have uncovered that almost 33% of experts experience psychological stress. Studies among interns have point by point the level of stress among three-fourth of the members (Supe AN. A study of stress in clinical understudies at Seth GS Medical College) and those including colleagues have declared the inescapability of stress to be pretty much higher as 91.1%. Researches which have uncovered mental grimness recommend that many interns have distress (51.3%), anxiety (66.9%), and stress (53%). (Chakraborti A, et al.) These wide assortments across different surveys are a result of differences in the instruments used to overview the diverse mental develops. Studies have also surveyed the blocks in searching for mental help and these recommend that disgrace, classification issues, nonattendance of care, and fear of unfortunate intercession to be the huge hindrances for searching for assist related to emotional well being issues. (Menon V, et al.) Surprisingly, none of the assessments from India has evaluated the stress and mental issues in senior specialists (medical services experts).

Cases in India as on 07/05/2021

Cases	Recovered	Deaths
2.15Cr	1.76Cr	2.34L
+4.14L	+3.32L	+3,915
+4,14,000	+3,32,000	

OBJECTIVES

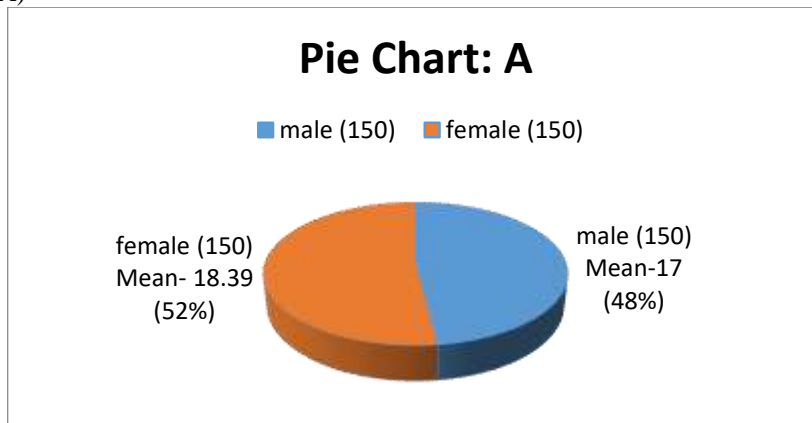
- To evaluate the psychological stress among doctors who are working in different hospitals in India during COVID-19 times.
- To compare the psychological stress among male doctors and female doctors who are working in different hospitals in India during COVID-19 times.

HYPOTHESIS

There will be high level of psychological stress in clinical specialists who are working in different hospitals during COVID-19 in India.

RESEARCH METHODOLOGY

Sample: 300 doctors who were working in different medical clinics or hospitals during COVID-19 were selected using purposive sampling. (Pie Chart: A)



Measures**PERCEIVED STRESS SCALE (PSS)-**

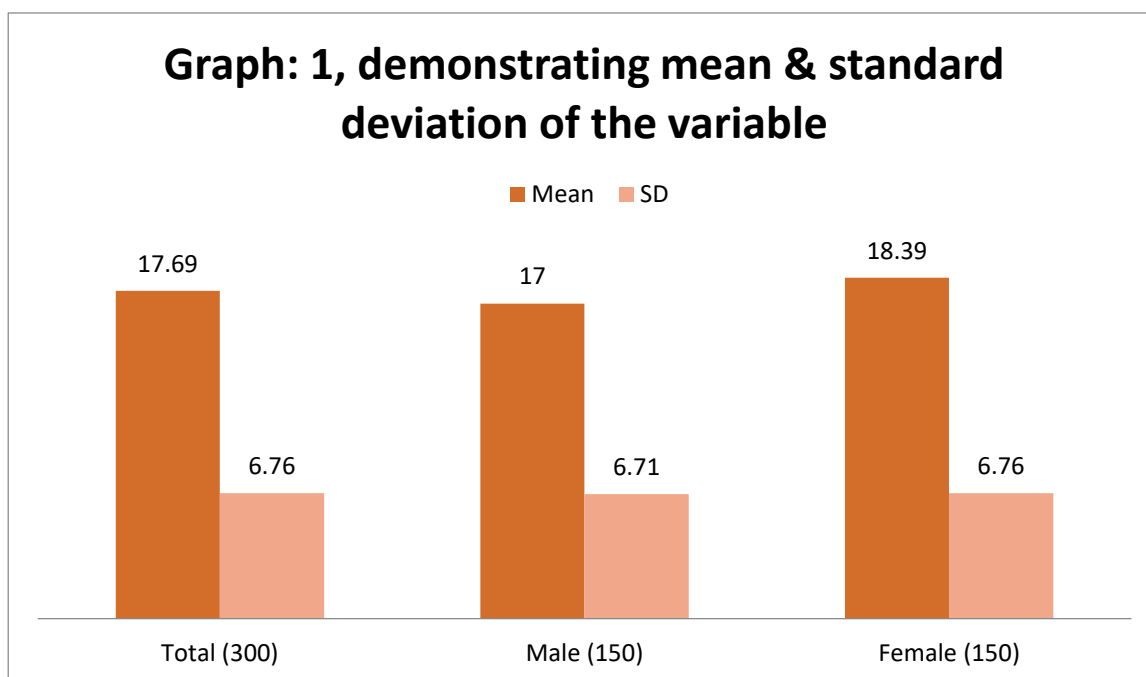
The scale is developed by Sheldon Cohen in 1983. It is the most standardized psychological tool for evaluating the level of stress and for assisting us with perceiving how different conditions impact our perceived stress and feelings. The 10 items in this tool present about your assessments and contemplations during the recent month. The respondents had to rate each thing on a 4-point scale: (0-never, 1-almost never, 2-sometimes, 3-fairly-often, 4-very-often)

Procedures

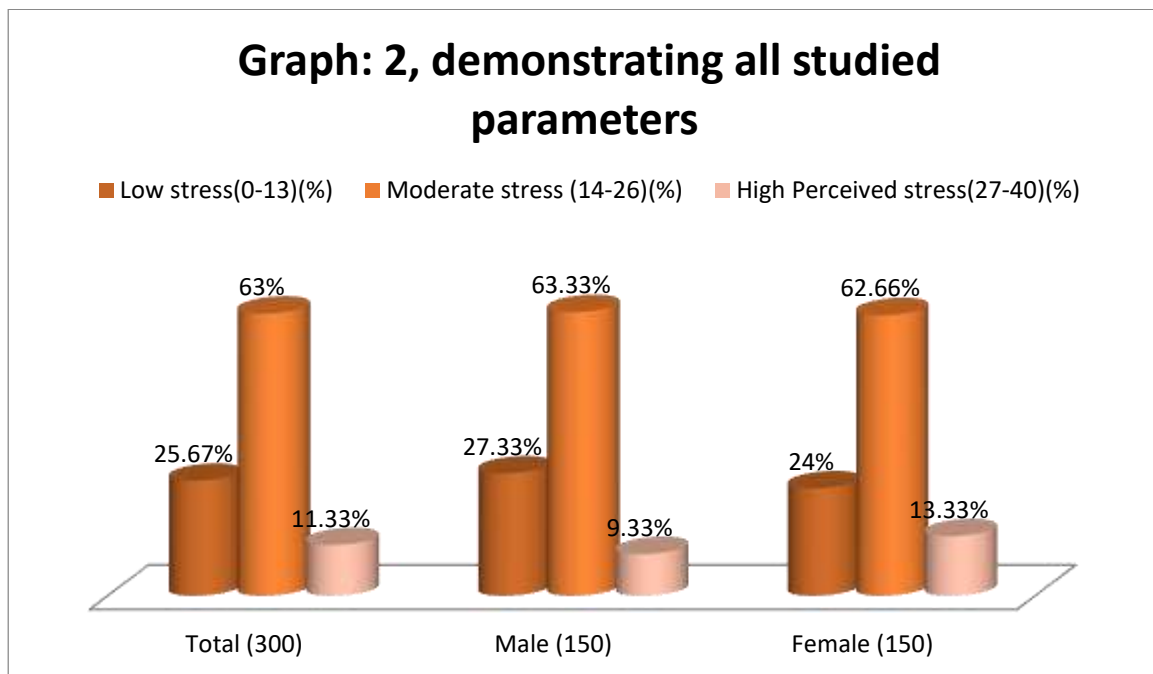
The current study was conducted on 300 doctors who were working in different COVID-19 hospitals in India using purposive sampling. The study was completed during and after lockdown for a complete duration of 13 months. As the time was not as good and doctors were also busy at the hospitals, an online survey has been done and the questionnaire was sent through whatsapp or e-mail. The doctors participating in the study were duly informed about the study. The written consent were taken from all the participants by marked a column as "agree". Participation was only on the voluntary basis. Data protection and anonymity were ensured. When participants submitted the questionnaires, they were said thanks. After the benchmark evaluation, the participants were screened on high, moderately and low stress.

Statistical Analysis Used

MS Excel sheet was used to analyzed the obtained data. For the all categorical and continuous variables percentage, mean, standard deviations (SD), and z test were calculated.

RESULTS

After the analysis, the results are showing that the total mean of doctors is 17.69 (Graph: 1), clarifying that the doctors who are working during COVID-19 are moderately high stressed. Only 25.67% of clinical experts experience low stress. The moderate and high score of PSS in specialists may be a result of the heavy work pressure. Their working days starts with going to the speculated patients or treating the COVID-19 positive patient, inspecting their confined wards, facing the shortage of oxygen while treating patients, pressing factor of their duties, fear of getting infected or not to go and see their families are always with them.



The mean of PSS scores in male clinical specialists is 17, while in female clinical specialists it is 18.39. The scores have divided into three sections respectively, Graph: 2 shows that only 24% of female specialists experience low stress, while 27.33% of male specialist fall under low stress category. 9.33% of male specialists experiences highly perceived stress, while 13.33% of female clinical experts experience the same. 62.66% of female specialists encounter the moderately high stress and 63.33% of male doctors experience moderately high stress, which clarifies that female clinical specialists encounter more stress while working during COVID-19.

When we compare the standard deviation (SD) for both groups individually, it shows that SD of male specialists (6.71) is lower than female specialists (6.76). SD scores among female doctors have a more broad spread; while as in male doctors, PSS scores will in general group around the mean. Since it is observed that significant level=0.5, $z = -1.80$, (p-value), it is concluded that the null hypothesis is accepted.

DISCUSSIONS/ CONCLUSIONS

The situation of doctors are much of the time troubling. The current study shows the work stress of doctors during COVID-19. A report says, India reports more than 3,00,000 new infections and lost approximately 2,000 lives of people in a day only. The doctors are fighting the war tremendously by forgetting their personal lives. They are living isolated since first outbreak of the pandemic. Doctors are working too hard as they don't have time for even their families. A news was from the Gujrat, India that two doctors returned back to perform their duties just after the last cremation of their mothers. They are working upon the humanity. Instead of being appreciated, almost every third day we all hear the news about the doctors are getting beaten-up as they are unable to provide beds, oxygen or unable to save lives. Patients are waiting outside the hospitals as some hospitals are already full with their strengths. Times of India reported, in India, we lost 734 doctors as on Feb,2021 and data is increasing in numbers day by day. Even the media is not showing in which hospitals the critical care units are available but they are busy in spreading loads of negativity. In these situations the life of clinical specialists are getting worst. To measure the level of psychological stress among the doctors and additionally telling where the stress comes from. We used the most standardized tool PSS for measuring the stress. The scale has a potential ranged from 0-40. The extent of PSS ranges were also divided into three parts. The lower two and upper two quartiles were joined and set apart as stressed or not stressed.

The mean worth of the score is 17.69 which demonstrates moderately high stress among specialists as 63% of the clinical experts fall under this classification. In the current study we compared the data between the genders, which is showing that mean estimation of total female specialists is 18.39, while the male clinical experts, it is 17, which confronts that female experts are more stressed than male experts. There might be a few clarifications for this. The first one refers to gender stereotype, since females as nurturers and care givers may confront more stress for their patients and the uncertainty in the recovery. Furthermore, in a man centric culture like India, females as daughters, moms and wives need to continue care duties for the family, youngsters, and relatives when they get back and can't self-isolate subsequent to getting back from work, setting family at the higher risk of spread the infection. This would likewise add to expanded exhaustion for female clinical specialists. Moreover, absence of symmetrical help with home management, because of traditional standards, might be prompting all the more family strain. Ultimately, female specialists may confront more working environment loads and less security and support because of gender inequalities, with there being more male specialists in supreme numbers and also more in administrative or senior positions.

The way by which the country and society support doctors, and other health employees, eventually impacts the national patient security culture. The psychological wellness of doctors during worldwide pandemic is likewise remarkable as it could affect on mortality and recovery rates. Immediate consideration is expected to decrease psychological stress, workload and family strain in frontliners treating Covid-19 patients, and to improve their security.

REFERENCES

- Barger LK, Ayas NT, Cade BE, Cronin JW, Rosner B, Speizer FE, et al. Impact of extended-duration shifts on medical errors, adverse events, and attentional failures. *PLoS Med.* 2006; 3:e487. [PMC free article] [PubMed] [Google Scholar]
- Chakraborti A, Ray P, Sanyal D, Thakurta RG, Bhattacharayya AK, Mallick AK, et al. Assessing perceived stress in medical personnel: In search of an appropriate scale for the Bengali population. *Indian J Psychol Med.* 2013; 35:29–33. [PMC free article] [PubMed] [Google Scholar]

- Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *J Health Soc Behav.* 1983;24:385–96. [PubMed] [Google Scholar]
- <https://www.indiatoday.in/coronavirus-outbreak/corona-warriors/story/hours-after-mothers-cremation-2-gujarat-doctors-back-on-duty-1792308-2021-04-18>
- <https://medicaldialogues.in/state-news/maharashtra/maha-doctor-slapped-abused-and-beaten-up-after-covid-patient-death-1-held-3-absconding-70236>
- <https://news.abplive.com/videos/news/india-heart-breaking-on-duty-covid-doctors-beaten-up-in-up-s-prayagraj-1454339>
- <https://www.nytimes.com/2021/04/24/world/asia/india-coronavirus-deaths.html>
- <https://timesofindia.indiatimes.com/india/744-not-162-doctors-lost-their-lives-due-to-covid-19-in-india-ima/articleshow/80670607.cms>
- <https://www.google.com/search?q=covid+cases+in+india&oq=covid+cases&aqs=chrome>.
- Mavroforou A, Giannoukas A, Michalodimitrakis E. Alcohol and drug abuse among doctors. *Med Law.* 2006; 25:611–25. [PubMed] [Google Scholar]
- Menon V, Sarkar S, Kumar S. Barriers to healthcare seeking among medical students: A cross sectional study from South India. *Postgrad Med J.* 2015; 91:477–82. [PubMed] [Google Scholar]
- Medicalnewstoday.com. 2020. *COVID-19 Medical Staff Experience Insomnia And Higher Stress.* [online] Available at: <<https://www.medicalnewstoday.com/articles/covid-19-medical-staff-experience-insomnia-and-higher-stress>>
- National Mental Health Survey of Doctors and Medical Students, Australia. 2011. [Last assessed on 2017 May 16]. Available from:
- http://www.beyondblue.org.au/docs/default-source/default-document-library/bl1132-report-nmhdms-full-report_web.pdf?sfvrsn=2.
- Richardsen AM, Burke RJ. Occupational stress and job satisfaction among physicians: Sex differences. *Soc Sci Med.* 1991; 33:1179–87. [PubMed] [Google Scholar]
- Romani M, Ashkar K. Burnout among physicians. *Libyan J Med.* 2014; 9:23556. [PMC free article] [PubMed] [Google Scholar]
- Supe AN. A study of stress in medical students at Seth GS Medical College. *J Postgrad Med.* 1998;44:1–6. [PubMed] [Google Scholar]
- Tür FÇ, Toker İ, Şaşmaz CT, Hacı S, Türe B. Occupational stress experienced by residents and faculty physicians on night shifts. *Scand J Trauma Resusc Emerg Med.* 2016; 24:34. [PMC free article] [PubMed] [Google Scholar]
- Who.com. 2020. Coronavirus [Online] Available at <https://www.who.int/westernpacific/health-topics/coronav>

