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Awareness and Psychosocial Effects of COVID-19 Pandemic on Health Care Professionals and Medical Students Across the State of Maharashtra

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ABSTRACT

Background: COVID 19 -The pandemic which has advanced globally in mere time, is a disease resulting from an infection by a newly discovered strain of coronavirus- ' SARS-coV-2'. The healthcare professionals, are working tirelessly, and are honouring their services towards the general population, despite the threat of getting infected. Therefore in such circumstances, it has become essential to assess the knowledge and attitude of the medical professionals towards this pandemic, and also to discuss the effects this crisis is causing on their psychosocial stability.

Objective: 1. To assess the knowledge regarding COVID-19 mode of transmission, clinical effects, its protective and preventive measures from our health care professionals and medical students. 2. To assess psychological behavioural pattern in the form of fear, anxiety, sleep patten, depression from analyzing solutions from these questionnaires.

Methodology: A validated questionnaire was distributed amongst the doctors, private practitioners, Postgraduate residents, interns, medical students and the nursing staff in various government and private institutions. The results were then analysed statistically and the answers were recorded, tabulated and represented in pie charts.

Results: The study would play a key role in assessing the level of knowledge, attitude and practices of healthcare professionals and medical students have in context to COVID 19.

Conclusion: COVID-19 pandemic has affected psychologically as well as psychosocially on medical professionals which could be analysed from our study.

Key Words: Covid19, Psychological effects, Pandemic, Healthcare professionals and medical students

INTRODUCTION

The International Committee on Taxonomy of Viruses (ICTV)¹ termed this infection as, COVID-19, which was previously known as 2019-nCov², has turned out to be a rapidly expanding pandemic. The vast aura of this pandemic is leading to anxiousness and uncertainty not only in the general population but also in the healthcare industry. This vigorous spread of the pandemic has become alarming for medical staff as well as the general population. The first line fighters against COVID 19 are facing an elevated risk of acquiring the infection by getting exposed to lengthy, tiring shifts to compensate the health requirements.

The patients who showed symptoms of viral pneumonia were the first cases reported and diagnosed as COVID 19 in Wuhan, China³. This pandemic was declared as an emergency On January 30 and all the nations globally were asked to make efficient efforts to break the chain of transmission of COVID 19.⁴ This infection was declared as a pandemic on March 11, 2020.⁵ The very first death of a 61 years elderly patient due to COVID was announced by China on 11 January.⁶ Just in a few weeks, this infection escalated across the globe.⁷ This pandemic is an additional load for the medical along with the tiring hours leading to psychological stress, burnout, and fatigue.⁸

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COVID-19 is an infection having mainly droplet transmission, also faceo -oral, and direct contact routes have been identified, and has an incubation period of 2-14 days.⁹ Till today, no accurate treatment or vaccine has been explicitly developed to treat COVID-19. Therefore, applying preventive measures to control this infection is the line of treatment. Strategic Preparedness and Response Plan (SPRP) has been set up, which is helping in raising funds that are aimed to control the spread, offer prompt treatment, and reduce financial and communal impact.

OBJECTIVE

1. To assess the knowledge regarding COVID-19 mode of transmission, clinical effects, its protective and preventive measures from our health care professionals and medical students.
2. To assess psychological behavioural pattern in the form of fear, anxiety, sleep patter, depression from analyzing solutions from these questionnaires

MATERIALS AND METHODS

Study design: Cross-sectional study

Study population: Qualified healthcare professionals and medical students across various hospitals and colleges across the state of Maharashtra.

Study period: June 2020 – July 2020

Study setting: The survey will be conducted in the form of an online questionnaire which will be sent to various eligible participants including medical students, nurses, Asha workers, COVID-19 counsellors, interns, residents and medical specialists in the state of Maharashtra through the links which will be shared by using the platform of social media.

The eligible study participants include medical practitioners, postgraduates, residents, medical interns and medical students from across the state even those who are stuck in lockdown or at their home or both working and non-working doctors in covid19 wards. The participants will participate voluntarily in this survey.

The survey will be done after gaining approval from the institutional ethical committee (IEC). Electronic consent will be taken from all the eligible responders before answering the questionnaire. Based on the guidelines for clinical and community management of COVID-19 by the National Health Commission of the People's Republic of China¹⁰, a questionnaire will be created. This will consist of questions elaboration the socio-demographic status of the participants. Other questions would be based on awareness and psychological effects of the pandemic. Questions will also be adapted from the insomnia Severity Index [ISI]¹¹, Patient Health

Questionnaire 2.¹²

The question will be based on socio-demographic criteria for Age, gender, education, place of practising medicine/undertaking medical education. Rest of the questions will be added to assess the knowledge and attitude of the participants towards factors such as route of infection, safety measures, possible treatment and ways to stop the chain of transmission. Also, the psychosocial effects of the pandemic will be analysed using the basis of the insomnia severity index (ISI)¹¹, and various attributes regarding the emotional health of the participants. For the process of data collection, a convenient sampling method will be used which will be presented in the form of frequencies and percentages. Illustrative statistics will be presented for all the categories based upon the responses.

Selection criteria: All the participants should be either certified healthcare professionals or medical students.

Implications: The results of this survey will help to assess the awareness of COVID 19 and the effects it is causing on the emotional health of the participants.

METHODOLOGY IN PICOT FORMAT

P (Population): more than 500 health care professionals and medical students, as Study participants

I (Intervention): Assessment of views regarding knowledge and psychological effects of health care professionals and medical students

C (Comparison): Not applicable.

O (Outcome): Identification of knowledge of preventive measures taken, and it's psychological as well as psychosocial effects and analyzing it in percentages

T (Time): Study was conducted over 1 month

Measurements: Questionnaire-based evaluation of opinions.

Quantitative variables: None

Statistical methods

The inputs will be noted from the questionnaire, statistically and will be analysed in percentages.

EXPECTED RESULTS

The study would play a key role in assessing the level of knowledge, attitude and practices of healthcare professionals and medical students have in context to COVID 19. Nevertheless, COVID-19 pandemic has affected psychologically as well as psychosocially on medical professionals which could be analysed from our study. If accurate effects are identified, measures could be taken to assess the specific do-

mains that show a deviation from the expected results and to create awareness in that particular concerning issue. Obtaining the information and spreading awareness at a higher level such as the study design of this topic, would help in the evaluation of the consequences, that are faced by Medical professionals due to this pandemic.

DISCUSSION

COVID 19 is an aggressive pandemic that has affected almost every sector in the community. In this crisis, HCWs are affected in one way or the other by this pandemic and are at a higher risk of developing this infection. Thus, healthcare professionals must be aware of the details of this situation. The survey of Assad et al. held in 2020 among healthcare workers in Saudi Arabia showed that doctors and nurses had remarkable better knowledge in comparison to the healthcare staff.¹³ All groups of healthcare professionals had a positive attitude towards the use of PPE kit for suspected/confirmed of COVID 19.

According to a survey by Modi et al. that took place in 2020, medical practitioners and students from the Mumbai zone exhibited consciousness of COVID-19 with a percentage of 71.2% accurate responses.¹⁴ It was seen that awareness among medical students was comparatively higher than any other clinical/non-clinical branch. The necessity of implementing training programs for controlling COVID 19 infection was concluded from this study. A study conducted by Manson et al. during this pandemic in 2020, concluded that only a fifth of infected personnel was regularly wearing the personal protective equipment.¹⁵ The risk of acquiring infection was also higher due to inappropriate use of PPE (repeated use of masks).

Also, some studies conducted by Zhang WR enlightened the fact that the healthcare professionals during this pandemic had some impacts that showed the effects of severe insomnia, anxiety, depression, and obsessive-compulsive symptoms.¹⁶ Some evidence were reflected in the global burden of disease study.¹⁷⁻⁹. The results which will be concluded from this study will help in putting a light on the attributes of healthcare professionals towards COVID 19.

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