

Effect of COVID-19 on healthcare professionals: A multicentre survey

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Abstract

The COVID-19 pandemic has affected around 50 million people all over the world with profound repercussions on the global healthcare system. Several studies have drawn attention to the potential risk of long term mental health problems in healthcare professionals combating the virus as frontline warriors. We undertook this cross-sectional study to observe the impact of the COVID-19 pandemic on healthcare providers. An electronic questionnaire created using the web survey tool "Google Forms" was distributed among healthcare professionals through social media platforms. From 13th April 2020 to 23rd April 2020, 250 anonymous responses were obtained from healthcare professionals worldwide. On analysis using Google Forms, 84.8% professionals reported anxiety while dealing with COVID-19 cases. From strained inter-personal relationships to feeling jeopardized in their respective protective gear, various reasons of apprehension were reported. 41.7% of the participants considered switching their career pathways. The psychological well-being of the front line healthcare professionals should be monitored and their views ought to be obtained on impending changes to practice.

Keywords: COVID-19, Effect, Healthcare professionals

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I. Introduction

The name "COVID-19" (acronym for 'coronavirus disease 2019') was announced by the World Health Organisation on 11 February, 2020 for a pneumonia caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The virus was termed as SARS-CoV-2 on the same day by the International Committee on Taxonomy of Viruses (ICTV) as it is genetically related to the coronavirus that caused the SARS outbreak in 2003. [1] The WHO declared COVID-19 outbreak as a "public health emergency of international concern" on 30 January 2020. [2] So far, across 216 countries and territories around the world and 2 international conveyances, almost 50 million cases have been reported with around 1.2 million deaths. [3]

Various studies have been conducted around the world to gauge the psychological effect of the COVID-19 medical emergency on healthcare professionals. A YouGov poll conducted in the United Kingdom for the Institute for Public Policy Research in April 2020 saw 50% of the 996 participating health professionals admitting deterioration in mental health since the onset of the COVID-19 crisis. 21% expressed an inclination to resign from their jobs in healthcare. [4][5]

The coronavirus pandemic has created a demand for a rapid decision-making process while triaging and isolating patients with suspicion of infection, and also after staff and patients test positive on whether to shut down departments and operating theatres. This constant pressure of functioning optimally under time constraints, limited resources and media scrutiny during the COVID-19 outbreak has led to a significant surge of stress levels in frontline clinicians of Greece. Moreover, donning personal protective equipment with limited access to toilet and water for prolonged periods of time has resulted in physical and mental fatigue amongst frontline workers. Breathing difficulties have also been reported with the protective gear provided. [6]

A study conducted 5 weeks into the COVID-19 pandemic in Italy recognized the need for urgent attention to the mental health of healthcare workers directly involved in treating COVID-19 patients who reported emotional burnout secondary to sub-optimal patient care and professional inefficiencies to prevent post-traumatic stress disorder in the future. [7]

In the words of Hakan Öğütlü at the department of psychiatry at Ankara City Hospital, Turkey, "Although coronavirus-related diseases will end soon, it is predicted that serious psychiatric disorders will be a lasting consequence of the pandemic." However, on the brighter side, the appreciation received by the healthcare workers from the public who now seemed to have a greater sense of unity with healthcare professionals was encouraging. [8]

Muhammad Saleem et al in a single centre study among healthcare professionals in Pakistan concluded that psychotherapeutic studies should be initiated to help healthcare providers build resilience as self control has been found to “buffer the negative influence of COVID-19”. [9]

We decided to conduct a survey ourselves to obtain firsthand accounts of the experiences and views of healthcare professionals during the coronavirus pandemic. Therefore, we initiated an online survey using the web survey tool called Google Forms to interpret the effect of the coronavirus pandemic from a healthcare professional’s perspective.

II. Aim

To study the effect of COVID-19 on healthcare professionals

III. Objectives

1. To obtain hands-on accounts of the effect of the COVID-19 pandemic from healthcare professionals actively involved in the frontline to ‘flatten the curve’ of the coronavirus outbreak.
2. To derive recommendations to changes in current practice based on the collated opinions of the participating healthcare personnel.

IV. Data Collection and Research Methodology

Study period: 13th April 2020 to 23rd April 2020

Type of study: Cross sectional study

Sampling method: Purposive sampling

Sample size: 250

Inclusion criteria: Healthcare professionals in clinical practice during the time of study including doctors, nurses and support staff such as cleaners

Exclusion criteria: Healthcare professionals not rendering their services in clinical areas during the time of study

Type of survey: Online, using the web survey tool called Google Forms

Questionnaire used: Available on request

Type of questions: 7 dichotomous (yes/no), 1 trichotomous (yes/no/maybe), 1 multiple choice and 6 paragraph type/opinion based questions. The grade and geographic location of practice was a mandatory question in the survey to ensure validity of the respondents.

Method of data analysis: Google Forms and its incorporated Google Sheets

V. Results and Discussion

The majority of respondents, 95.2% (n=238) declare that their work has been affected by the COVID-19 pandemic. 84.8% (n=212) report anxiety in dealing with COVID-19 positive patients. 66.4% (n=166) workers feel unsafe dealing with COVID-19 patients in the personal protective equipment (PPE) provided to them at their respective workplaces and propose full facial shield and filtering face piece (FFP3 or N95) masks and long-sleeved gowns as obligatory measures in addition to aprons. 84.4% (n=211) feel that a quarantine period is mandated after treating COVID-19 cases. 85.6% (n=214) agree that all healthcare workers dealing with COVID-19 patients should be tested. 84.8% (n=212) suggest that positive swabs be subjected to further confirmatory tests like high resolution CT scan of the thorax. 57.6% (n=144) health workers report relationship difficulties with their family, friends, neighbours or members of their household. [Fig. 1]

58.3% (n=130) respondents declare that their future career goal remains unchanged with the emergence of the COVID-19 outbreak. 20.2% (n=45) answered ‘maybe’ to career change; 21.5% (n=48) answered ‘yes’ to career change. [Fig. 2]

55 people feared the COVID-19 pandemic might last for a further six months from April 2020 while 42 believed it might continue for a further ten months.

Respondents opine that strained inter-personal relationships have been experienced due to either the layperson avoiding close contact with healthcare workers because they are “terrified of catching the virus” or the health workers apprehensive of close contact with their loved ones due to the worry of undue viral transmission to them.

Courtships have been challenged because of partners moving out of their residences or communication barriers being created due to travel restrictions. One of the respondents mentions sleeping separately from husband for underlying fear of infection transmission. Healthcare workers residing far from family state “feeling stuck” due to travel restrictions.

There have been reports of long working hours affecting work-life balance.

The concomitant exasperation gets vented out as unsolicited arguments with family members due to misdirected anger as admitted by respondents, leading to further psychological distress. To quote one of the participants, “I’m more stressed so snapping at them. Kids don’t want to come near me”.

Fear of death has been reported to be an important cause of anxiety surrounding the COVID-19 pandemic. Moreover, deaths due to coronavirus in hospitals have also resulted in distress among health professionals.

With respect to post-COVID changes to healthcare system, both positive and negative possibilities have been put forward. A potential transition to telemedicine through telephonic triage of patients and widespread emergence of artificial intelligence has been highlighted by maximum respondents. Better public awareness in infection prevention and more opportunities for clinical research are some other predictions. Besides, better preparedness for subsequent pandemic situations and financial rewards have also been expected. Furthermore, of special mention is a forecast made by one of the participants that the pandemic might result in a rapid transition from conventional learning methods to electronic learning with universal access to treatment guidelines globally for consistent delivery of care in medical institutions all over the world.

On the downside, there can be apprehension in the post-pandemic patient consultations as identified by a couple of participants. Few people in the cohort voiced concerns over the fact that patients with non-COVID symptoms are afraid of visiting the hospitals for fear of contracting COVID-19; also delay in treatment of non-COVID illnesses like cancer with change in goalposts in cancer pathways might lead to long waiting lists overwhelming the healthcare system worldwide causing burnout of the healthcare workers in the long run. Long term mental health problems are also a concerning possibility as per few healthcare workers.

As additional measures to social isolation, more widespread testing among members of the public with an aim to ‘test, trace and isolate’ with provision of masks to the public have been recommended by majority of the participants.

5.1. Figures

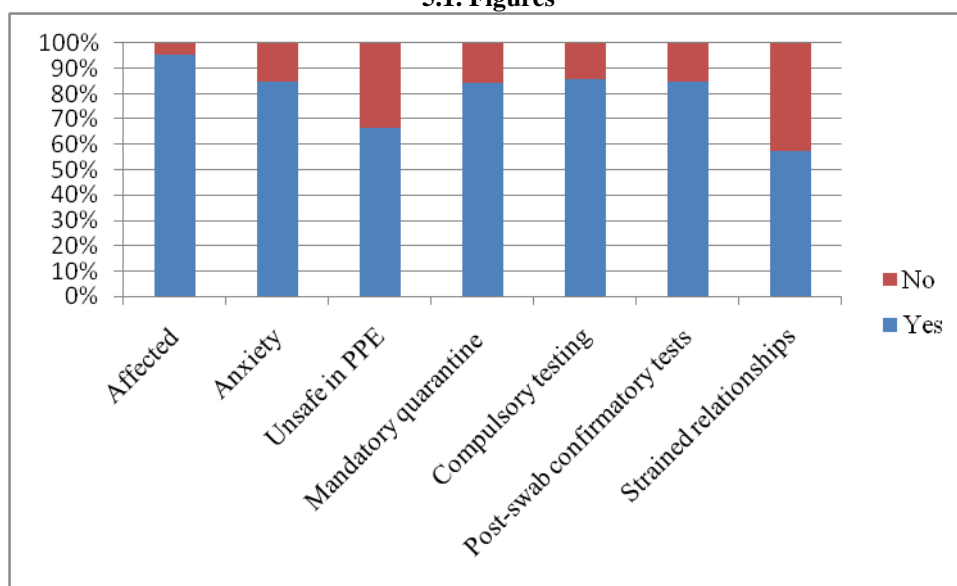


Fig. 1: Variables considered

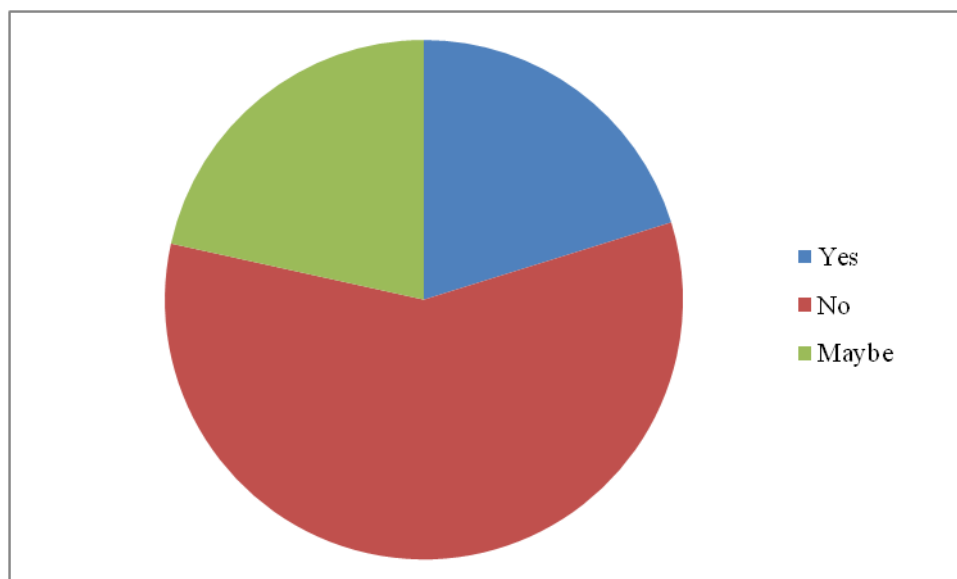


Fig. 2: Career change

VI. Conclusion and Recommendations

The fact that the COVID-19 pandemic has had a profound impact on the health and well-being of healthcare professionals as highlighted by previous studies is now justified by the vast majority of respondents claiming that they feel anxious while dealing with SARS- CoV2 positive cases. One of the other major consequences of the pandemic is strained inter-personal relationships due to the apprehension around healthcare professionals acting as potential carriers of the virus. However, notwithstanding the adverse outcomes of the unprecedented circumstances, over half of the participants would not opt for a career goal change.

The limitations of our study are regarding the heterogeneity of the sample; majority of the respondents are doctors and nurses. The time period is also brief. We have not considered the subsequent peaks and waves of the COVID-19 outbreak. Moreover, the anxiety levels experienced have not been measured at an individual level and pre-existing health conditions have not been considered.

It is of paramount importance to ascertain safety of healthcare professionals through state of the art personal protective equipment. Further research is warranted to innovate protective gear which lessens the physical discomfort associated with donning the current personal protective equipment for prolonged periods of time.

Continuous monitoring of the psychological health of the healthcare personnel through anonymised feedback and confidential drop-in sessions with mental health experts should be prioritised. In addition, periodic feedback and reviews on changes to practice must be sought from healthcare professionals in general.

Frequent communication with loved ones through virtual platforms, educating them of the nature of spread of the disease can help curb the feeling of isolation and can also potentially reduce the fear around interaction with healthcare workers.

Frontline workers directly involved in care of coronavirus positive cases should be subjected to testing at regular intervals to help reduce the fear of death consequent to COVID-19.

Overall, healthcare professionals although are overburdened and psychologically distressed with the pandemic situation have also been able to gain the confidence of more members of the public who now share a common purpose of fighting against the virus in solidarity with the healthcare professionals.

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