

Awareness, Behaviors and Perception regarding the COVID-19 Pandemic among Health Care Workers

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ABSTRACT

Introduction: It is essential that frontline forces like health care workers (HCWs) should have updated knowledge about the COVID-19 pandemic trends and its epidemiology.

Objective: This study was conducted to make an assessment of the awareness, perceptions and behaviors of HCWs towards the recent pandemic of COVID-19.

Methods: A cross-sectional survey on a structured questionnaire was carried out in a hospital in the metropolis of Karachi among HCWs involved in the management and treatment of COVID-19 from March to August 2023. A total of 179 responses from doctors, paramedical staff, laboratory technicians, nurses and other ground staff workers were received.

Results: The majority of the respondents were males (110, 61%) and physicians (54%), with a total work experience of 5 years or more (70%). 5 percent were noted to have had a prior experience in treating patients during the outbreak. The survey revealed that the participants of the study had some knowledge about precautionary measures and the management of patients. However, many of the HCWs were not aware about current updates sample testing and on quarantine measures. It was perceived by many HCWs that this pandemic as a public health issue of great importance, and were also concerned about getting infected themselves.

Conclusion: HCWs lack enough understanding about the COVID-19 pandemic, both in terms of epidemiology and current updates. As a result, regular updates must be provided through educational seminars that make use of virtual media, and professional counselors may be scheduled to help reduce anxiety related to the pandemic.

Keywords: SARS-CoV-2, COVID-19, Health care workers (HCWs) le History.

INTRODUCTION

In January 2020, a new illness outbreak in China's Hubei Province was reported to the World Health Organization, and it was deemed a Public Health Emergency of International Concern. The cause of the pandemic was coronavirus 2 of the severe acute respiratory syndrome (SARS CoV- 2). Corona Virus Disease-19 (COVID-19) is the name given to the illness^{1,2}. A number of those who were infected reported varying reactions, from minor to significant respiratory system impairment, and recovered without needing medical intervention. On the other hand, the development of severe disease and its related problems was more common in older patients and patients with concomitant disorders.

Until July 2021, COVID-19 has cost 4,325,692 casualties and several million cases globally, both in developing and developed countries. Pakistan, which provides refuge to 220 million people, experienced its first occurrence as early as February 26, 2020. As of right now, Pakistan has 1,080,360 cases and 24,085 documented deaths³⁻⁴. Doctors, lab technicians, nurses, paramedics, and other health care professionals as well as ground personnel like ambulance drivers and cleaners are among the front-line combatants in this pandemic. In the fight against the pandemic, each of them has been indispensable. This study is required because prior research on pandemics has demonstrated that the most crucial factors influencing favorable outcomes are medical professionals' perceptions and understanding of the pandemic and its epidemiology, as well as epidemic awareness⁶⁻⁸.

Over 11,000 COVID-related deaths were reported worldwide between March 2023 and August 2023, with the majority of those deaths occurring in the United States. Around a million cases were reported to the World Health Organization worldwide during this time period, while it's likely that there were significantly fewer testing facilities and reporting rates, which led to a significant undercount. In particular, epidemiologists are keeping a close eye

on the most recent strain of SARS-CoV-2, JN.1, and searching for any indications that it could result in a more serious infection than earlier strains⁹.

By identifying new cases, enforcing public health protocols, and informing and teaching the general public, healthcare workers are essential in managing pandemic epidemics. Therefore, the goal of this study was to assess the healthcare workers' (HCWs') awareness, knowledge, and views of the COVID-19 pandemic while they were employed at a medical institution in Karachi.

METHODOLOGY

This was a cross-sectional study which was conducted among HCWs who were working in a hospital with affiliation to a teaching institution. It had also been designated recently as a COVID-19 specialized hospital. It was a 180 bedded hospital with a super-specialty ward for the treatment of patients. All the HCWs were involved in the treatment and management of COVID-19 patients which included medical specialist doctors, nurses, the paramedical staff. Along with that laboratory technicians and ground staff workers were also involved. The study was conducted in a period of six months (March to August 2023). The study participants included all those currently working in a hospital setting for (universal sampling).

A self-administered questionnaire was created following a review and discussion of the literature. Three experts—a physician, an epidemiologist, and a microbiologist—validated the questionnaire's content. There were three portions to it: Section A comprised demographic information, Section B covered knowledge and behavior related to COVID-19, and Section C assessed study participants' perceptions. Strongly agree (SA, 5), Agree (A, 4), Neutral (N, 3), Disagree (DA, 2), and strongly disagree (SDA, 1) were the five points on a 5-point Likert scale.

The Institutional Ethical Review Committee, Ziauddin University, Karachi, approved the study protocol with Reference number: 7911023KBGE. Consent from the hospital's medical superintendent was acquired in order to interview the HCWs.

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Every participant gave their informed written consent after being given a verbal explanation of the study's goal.

The Statistical Package for Social Sciences (SPSS) was the statistical program used for data analysis. To measure knowledge and awareness, descriptive statistics like percentages and proportions were used. The results were shown in tables. Healthcare workers and doctors were compared using the chi-squared test; a p-value of less than 0.05 was considered significant.

RESULTS

The response rate for this study was 89%, with 179 out of 221 HCWs participating. Their age was 25±9 years, mean±SD. 110 members, or 61% of the total, were men. Of these, doctors or medical professionals made up about half. Of the 97 (54%), lab technicians and nurses made up 16 (8.9%). Nearly 125 people, or 70%, had up to five years of job experience. Physicians and other healthcare professionals such as nurses and lab technicians had similar levels of awareness and knowledge. The primary results monitored were: 82 (44%) physicians and 100 (55%) other healthcare professionals knew the patient's country of birth; additionally, 67 (55%) physicians and 50 (43%) other healthcare professionals knew the date the pandemic began. 60 (63%) doctors and 36 (38%) other HCWs were aware of the approximate number of definitive cases. 65 (54%) doctors mentioned the mode of transmission to be via direct contact. The quarantine measures to be taken after exposure were known to both doctors and other HCWs equally. Symptoms reported most frequently were cough and fever. The question about the agent being potentially used as a potential bioterrorism weapon was believed by 73 (52%) doctors

and 69 (49%) other HCWs. Several thought that the vaccine is an effective pandemic control measure - 130 (65%), while 81 (48%) doctors and 89 (53%) HCWs knew that for the active prevention of disease transmission, consistent hand washing and personal hygiene methods are effective.

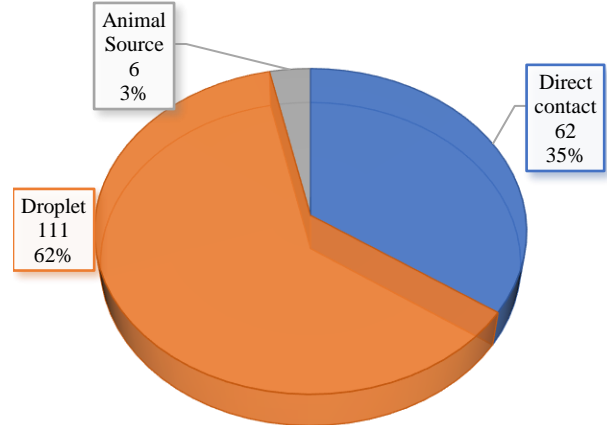


Figure 1. Mode of transmission of disease

HCWs should be uptodate on COVID-19 information
 Hand-washing , personal hygiene measures and social distancing are effective in preventing transmission of disease
 Treatments for COVID-19 are symptomatic and not curative

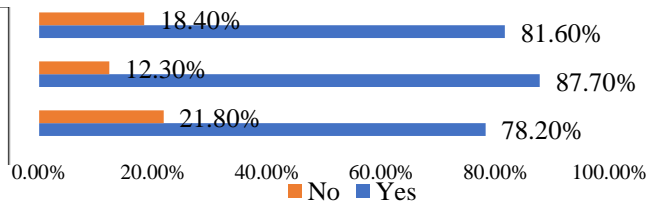


Figure 2: Awareness about the pandemic

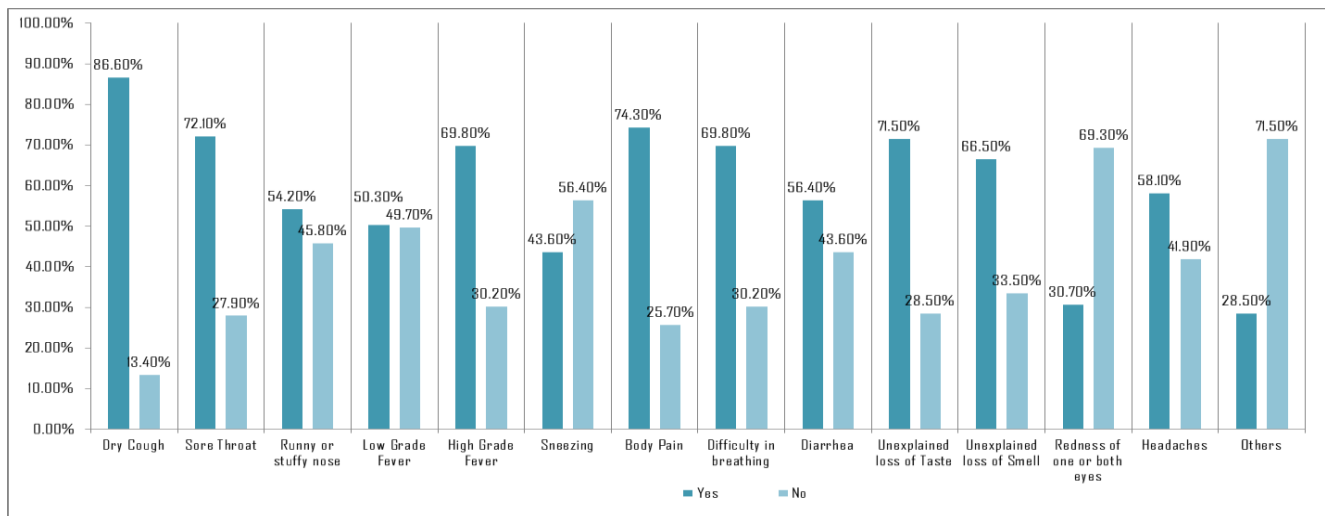


Figure 3. What are the possible symptoms of the disease?

DISCUSSION

The world paid a heavy expense of the loss of human lives due to COVID-19. Medical professionals are an important foundation for the care of human beings; their perception and awareness

regarding the pandemic has assumed more importance at this time. Hence, this survey was conducted to assess the perception and knowledge of medical workers regarding the epidemiology and disease mechanisms of COVID-19. We concluded that the level of

awareness was variable among HCWs regarding different aspects of the disease and its epidemiology. However, the level of awareness did not show much difference between doctors and other health care workers in all different aspects. Most participants of the study knew of the mode of transmission, place of origin and usual symptoms of COVID-19. They were aware of whom to quarantine and for how much duration. Since most HCWs were familiar with the source of knowledge at the time of the study and the epidemiological factors of the pandemic were still relatively fresh, the degree of knowledge was roughly the same for all participants. The lack of optimal knowledge could be attributed to the ongoing revision of advisory body guidelines, which may have been difficult for them to stay up to speed with given the workload associated with the epidemic^{2,3,10}. That knowledge predicted practice approach is evident from the study⁶.

Health care workers (HCWs) should implement the best preventive and treatment strategies to stop the spread of the pandemic, as they are part of the frontline defense force against it. Even though the information on the disease's symptoms was sufficient, it lacked information about the virus's structure, similarities to earlier coronavirus strains, handling of suspects, isolation, and immunization. Ideally, they would all be aware of the differences related to the illness; this can be accomplished by the infection control committees setting up seminars and training sessions on new developments. Additionally, physicians, nurses, and laboratory technicians can receive up-to-date critical directives via social media¹³⁻¹⁶.

Perception of the pandemic was another essential active goal to work for in the ongoing condition. The results of our study showed that health care workers (HCWs) viewed the situation as severe and were afraid of contracting an infection. (this was more widespread among other HCWs as opposed to doctors). It was also decided that having information is essential to surviving the pandemic. Political commitment was deemed to be crucial for handling the nation's increasing COVID-19 caseload, and health care workers felt they had the government's full support¹⁷. It has been observed that stress at work and a fear of dying may contribute to health care workers' mental health issues. In order to lessen HCWs' fear and anxiety of infection and to offer mental support, local efforts for motivational lectures, individual counseling, and motivational talks are needed^{3,18-21}.

CONCLUSION

There are very few components of COVID-19 that health care workers are sufficiently aware of, such as epidemiology, which includes time and place of origin, mode of transmission, and case management. HCWs declared that the pandemic was the public health community's top concern and that there was a great deal of dread among them that they might become sick or die. Since the pandemic is still a problem today, informational sessions, counseling, and motivational speeches will help close the knowledge gap and ease HCWs' anxieties and concerns. This will help them be better prepared for future pandemic-related situations as well as other communicable diseases.

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