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Research Article

**EPIDEMIOLOGICAL ASPECTS AND PSYCHOLOGICAL  
REACTIONS TO COVID-19 OF MEDICAL PRACTITIONERS**Dr Maria Faiz<sup>1</sup>, Dr Kiflain Hassan<sup>1</sup>, Dr Sara Riaz<sup>1</sup>, Dr Fiza Anwer<sup>1</sup><sup>1</sup>Khyber Teaching Hospital**Article Received:** June 2020**Accepted:** July 2020**Published:** August 2020**Abstract:**

**Introduction:** There have been 3 090 445 cases of coronavirus disease 2019 (COVID-19) and 217 769 death reported worldwide as of April 30, 2020. **Objectives:** The main objective of the study is to analyse the epidemiological aspects and psychological reactions to COVID-19 of medical practitioners. **Material and methods:** This cross-sectional study was conducted in Khyber Teaching Hospital during January 2020 to June 2020. This study was done through systematically designed questionnaire. This survey analysis was conducted among medical students and professionals. The data was collected from 120 participants, who are willing to participate in this study. **Results:** The data was collected from 120 participants. This data consists of both medical students and professionals. There are 68 (56.7%) female and 52 (43.3%) male participants. Out of 120, 88 (73.3%) are medical professionals and 32 (26.7%) are medical students. According to respondents, there are different sources of information for Covid-19. Social media is the main source of information (46.7%), television (26.7%), others (15.8%) and print media (10.8%). There are different sources of transmission, aerosols and droplets, contact with human fluids and contact with contaminated surface. All of them is considered to be the major source of transmission. **Conclusion:** It is concluded that adverse psychological symptoms were prevalent among medical care workers in Pakistan during the COVID-19 epidemic.

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## INTRODUCTION:

There have been 3 090 445 cases of coronavirus disease 2019 (COVID-19) and 217 769 death reported worldwide as of April 30, 2020. In China alone, there were reports of more than 84 373 COVID-19 cases with 4643 deaths. After the rapid spread of the outbreak to many countries in the world, the World Health Organization (WHO) declared the COVID-19 outbreak as a pandemic on March 11, 2020. Public health intervention nationwide and quarantine had been implemented in most of the countries in the past months<sup>1</sup>.

COVID-19 is basically a medium size RNA virus and the nucleic acid is about 30 kb long, positive in sense, single stranded and polyadenylated. The RNA which is found in this virus is the largest known RNA and codes for a large polyprotein. In addition, coronaviruses are capable of genetic recombination if 2 viruses infect the same cell at the same time<sup>2</sup>.

Several epidemics (such as H1N1, H5N1, avian influenza, Ebola, SARS, Zika, and Nipah) have affected India and other countries in the past, which were successfully tackled with appropriate research. The emergence of novel human pathogens and re-emergence of several diseases are of particular concern<sup>3</sup>. A novel human coronavirus initially referred to as the Wuhan coronavirus (CoV), currently designated as severe acute respiratory syndrome (SARS)-CoV-2, is responsible for the latest pandemic that is affecting human health and economy across the world. On 30 January 2020, the WHO declared the Chinese outbreak of COVID-19 to be a Public Health Emergency of International Concern because of its rampant spread, thus posing a high risk to countries with vulnerable health systems<sup>4</sup>. According to the WHO situation report (14 May 2020) update on COVID-19, there have been more than 42,48,389 reported cases and 2,94,046 deaths worldwide. By imposing a nationwide lockdown, India has curtailed the spread of this virus to a certain extent; however, the total

number of reported cases has crossed 78000 with approximately 2500 deaths and these numbers continue to rise<sup>5</sup>.

DHCP (dentists, medical hygienists, medical assistants, and receptionists) need to update their knowledge and skills regarding infection control and follow the protocols recommended by the relevant authorities to protect themselves and their patients against infections. Several medical care facilities in affected countries have been completely closed or have been only providing minimal treatment for emergency cases<sup>6</sup>.

## Objectives

The main objective of the study is to analyse the epidemiological aspects and psychological reactions to COVID-19 of medical practitioners.

## MATERIAL AND METHODS:

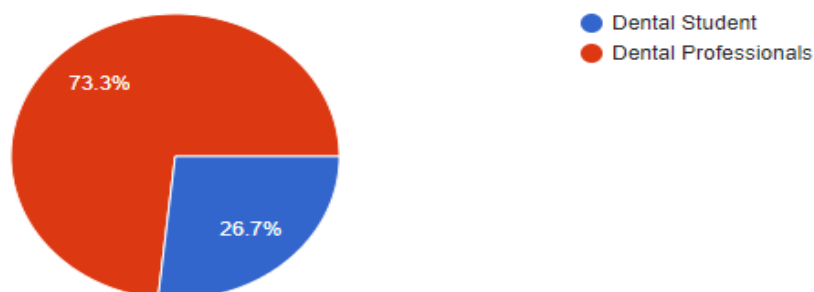
This cross sectional study was conducted in Khyber Teaching Hospital during January 2020 to June 2020. This study was done through systematically designed questionnaire. This survey analysis was conducted among medical students and professionals. The data was collected from 120 participants, who are willing to participate in this study. This questionnaire was based on 15 questions related to Covid-19 and treatment options.

## Statistical analysis

The data was collected and analysed using SPSS version 19.0 and Microsoft excel 2019. All the values were expressed in mean and standard deviation.

## RESULTS:

The data was collected from 120 participants. This data consist of both medical students and professionals. There are 68 (56.7%) female and 52 (43.3%) male participants. Out of 120, 88 (73.3%) are medical professionals and 32 (26.7%) are medical students (figure 01).



**Figure 01:** It shows the %age of medical students and medical professionals

According to respondents, there are different sources of information for Covid-19. Social media is the main source of information (46.7%), television (26.7%), others (15.8%) and print media (10.8%). There are different sources of transmission, aerosols and droplets, contact with human fluids and contact with contaminated surface. All of them is considered to be the major source of transmission.

Table 01 explains the responses of all 120 participants. According to participants latest pandemic effect directly on future dentistry and teledentistry is the best possible option.

**Table 01:** Analysis of questionnaire for selected participants (n=120)

<b>Variables</b>	<b>Frequency</b>	<b>% age</b>
<b>Gender</b>		
Male	53	43.8
Female	68	56.2
<b>Occupation</b>		
Medical professional	88	72.7
Medical student	33	27.3
<b>Source of information</b>		
Television	32	26.4
Print media	13	10.7
Social media	56	46.3
Others	20	16.5
<b>Major source of transmission</b>		
Aerosols & Droplets	36	29.8
Direct/Indirect with Human Fluids	12	9.9
Contact with Contaminated surfaces	08	6.6
All of them	65	53.7
<b>Treatment option</b>		
Conduct Telephone Triage to assess Patient's need of Emergency treatment	77	63.6
Physically check all incoming Patients	13	10.7
Absolute shutdown of Medical practice	31	25.6
<b>Protocol of waiting area</b>		
Apply Social Distancing protocol in Waiting Area for patients	13	10.7
Pre-screening of Patients and provision of masks and disinfectants to patients	13	10.7
Schedule appointments apart enough to avoid Patient contact	12	9.9
All of above	83	68.6
<b>Protocol of Emergency treatment</b>		
Airborne Precautions and use of N95 masks for operating Dentist	53	43.8
Airborne Precautions and use of N95 masks for people entering that room	38	31.4
Defer the patient	30	24.8

**Table 02:** Which of the following emotions do you feel when thinking about COVID-19

Emotions (Score 0–4)	I Do Not Feel It 0 N (%)	Lightly 1 N (%)	Moderately 2 N (%)	Quite Intensely 3 N (%)	Intensely 4 N (%)	Mean (SD)
Fear	59 (16.6)	146 (41.0)	85 (23.9)	51 (14.3)	15 (4.2)	1.49 (1.06)
Anxiety	58 (16.3)	133 (37.4)	84 (23.6)	59 (16.6)	22 (6.2)	1.59 (1.13)
Concern	12 (3.4)	94 (26.4)	106 (29.8)	87 (24.4)	57 (16.0)	2.23 (1.11)
Sadness	90 (25.3)	70 (19.7)	85 (23.9)	66 (18.5)	45 (12.6)	1.74 (1.35)
Anger	157 (44.1)	83 (23.3)	43 (12.1)	40 (11.2)	33 (9.3)	1.18 (1.35)

**DISCUSSION:**

In our survey, the vast majority performed a telephonic triage the day before the appointment, along with a full-body protection during the operative procedure. The necessity to reduce the number of incoming patients in the waiting room was held important by 87.1% of the colleagues. The way patients are received in the medical office has been modified as well, since 68.8% is providing patients with surgical mask and hand sanitizer upon arrival. Surprisingly, only a small minority is considering the body temperature check upon entrance as a valid method for critical case detection notwithstanding the low cost and the good reliability of this procedure<sup>7</sup>. It must be remembered that the current approach to COVID-19 is to control the source of infection; use infection prevention and control measures to lower the risk of transmission and provide early diagnosis, isolation, and supportive care for affected patients. Based on relevant guidelines and research, dentists should take strict personal protection measures and avoid or minimize operations that may produce droplets or aerosols<sup>8</sup>.

**CONCLUSION:**

It is concluded that adverse psychological symptoms were prevalent among medical care workers in Pakistan during the COVID-19 epidemic. Screening for adverse psychological outcomes and developing corresponding preventive measures would be beneficial in decreasing negative psychological outcomes of COVID-19 pandemic among medical care workers.

**REFERENCES:**

1. He X., Lau E.H.Y., Wu P., Deng X., Wang J., Hao X., Lau Y.C., Wong J.Y., Guan Y., Tan X., et al. Temporal dynamics in viral shedding and

transmissibility of COVID-19. *Nat. Med.* 2020;1–4.

- Zhou F., Yu T., Du R., Fan G., Liu Y., Liu Z., Xiang J., Wang Y., Song B., Gu X., et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: A retrospective cohort study. *Lancet.* 2020;395:1054–1062.
- Wölfel R., Corman V.M., Guggemos W., Seilmaier M., Zange S., Müller M.A., Niemeyer D., Jones T.C., Vollmar P., Rothe C., et al. Virological assessment of hospitalized patients with COVID-2019. *Nature.* 2020;1–5.
- Bryant RA. Acute stress disorder as a predictor of posttraumatic stress disorder: a systematic review. *J Clin Psychiatry.* 2011;72(2):233–9.
- Xu H., Zhong L., Deng J., Peng J., Dan H., Zeng X., Li T., Chen Q. High expression of ACE2 receptor of 2019-nCoV on the epithelial cells of oral mucosa. *Int. J. Oral. Sci.* 2020;12:8. doi: 10.1038/s41368-020-0074-x.
- Spitzer R., Kroenke K., Williams J., Löwe B. A brief Measure for assessing generalized anxiety disorder. *Arch. Intern. Med.* 2006;166:1092–1097. doi: 10.1001/archinte.166.10.1092
- Ahmed M.A., Jouhar R., Ahmed N., Adnan S., Aftab M., Zafar M.S., Khurshid Z. Fear and practice modifications among dentists to combat Novel Coronavirus Disease (COVID-19) outbreak. *Int. J. Environ. Res. Public Health.* 2020;17:E2821. doi: 10.3390/ijerph17082821.
- Meli L, Birk J, Edmondson D, Bonanno GA. Trajectories of posttraumatic stress in patients with confirmed and rule-out acute coronary syndrome. *Gen Hosp Psychiatry.* 2020;62:37–42.