General Public Awareness Regarding Covid-19 Among Patients Visiting the Dental OPD

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Abstract

Background and Objectives: The Covid-19 pandemic created a worldwide health crisis disrupting our daily lives. With no clear mode of therapy for it, prevention for the outbreak was the best course of action. The objective of the study was to assess general public awareness regarding Covid-19 among patients visiting the dental OPD at Altamash Institute of Dental Medicine.

Methodology: A total of 300 questionnaires were distributed among patients visiting the dental OPD at Altamash Institute of Dental Medicine between October-November 2020. 277 questionnaires were returned completely filled. Questions were close ended, assessing knowledge of symptoms of covid-19, mode of transmission, prevention, as well as source of information about covid-19.

Results: The results showed that a majority of people were aware of covid-19 & its symptoms. However, people were not fully aware of its transmission. Participants were generally well aware of SOPs & protection from covid-19 infections. Television and internet were the most commonsources of information regarding covid-19.

Conclusion: The study showed that most participants exhibited good knowledge of Covid-19. Mass vaccination remains a problem in Pakistan and using television and internet to educate the people regarding eventual vaccination will be of great help.

Keywords: Covid-19, pandemic, corona virus, preventive SOPs.

Introduction:

The world was first alerted to the presence of covid 19 in the city of wuhan in China. The initial cases were reported in December 2019 with continuing new cases the following year. The common symptom among hospitalized cases was pneumonia of unknown etiology, most of the cases being of vendors in Huanan seafood market. After investigation by Chinese authorities & WHO, the cause of infection was stated to be Novel Corona Virus. It would be another 2 months till this virus would come to be known as covid-19.[1,12]

Corona viruses are single-stranded, non-segmented, positive polarity RNA genome. They are named Corona Virus because under electron microscope prominent club shaped spikes resembling a crown ('corona' in Latin) can be seen on the outer surface. They generally cause diseases in Animals and are the second most important cause of common cold in Humans. Last two Epidemics related to the same family of viruses were recorded in 2002 and 2012, namely SARS and MERS respectively.[2]

In order to contain the virus strict curfew was implemented globally to restrict intermingling and unnecessary contact with strict emphasis on personal hygiene and cross infection control. In Pakistan first case was reported on 26th of February 2020. After the spread of virus within the country leading to epidemic the country was put under a nation-wide lockdown from April 1 and extended twice until 9 May.

The city of Karachi (as of 28 August 2020) has recorded about 92,000 confirmed cases, making up more than 30% of all cases of COVID-19 in Pakistan. While the total numbers of cases in

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Received: 15th November, 2022
Revised: 1st December, 2022
Accepted: 28th December, 2022
DOI: https://doi.org/10.52442/jrcd.v3i2.58

Pakistan have been recorded to be approximately 296,000, recovered cases are approximately 281,000.[3]

With the global outbreak of covid-19, some general safety & precautionary measures were announced worldwide. These were aimed to raise general public awareness on this relatively new disease.

The safety protocols introduced included protection of airway via masks, hands by washing/sanitizing & wearing gloves to minimize transfer via physical contact. The objective of this study is to judge general awareness of people regarding knowledge of covid-19 ranging from etiology, symptoms & personal protection during this pandemic.

Methodology:

After acquiring permission from Ethical Review Committe e at Altamash Institute of Dental Medicine, a total of 300 questionnaires were distributed among the patients visiting the Dental OPD at Altamash Institute of Dental Medicine at phase 4 DHA during the months of October and November 2020.

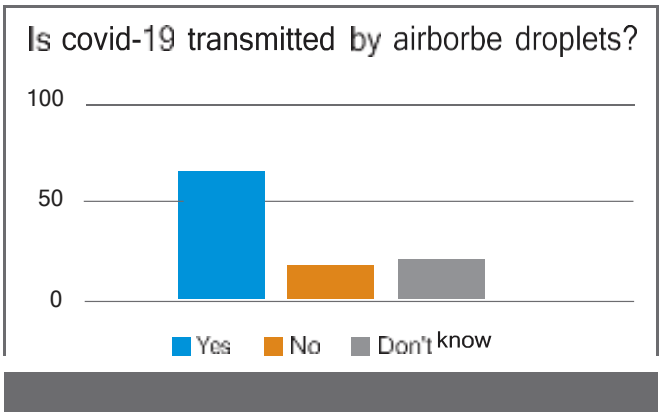
Their participation was completely voluntary. Incompletely filled questionnaires were disregarded. 277 completely filled questionnaires were considered. Data was compiled & analyzed using SPSS version 20.

Results:

Results showed that while 95% of the people were aware of the covid-19 pandemic, approximately 62% believed it to be transmitted via droplets. 41% believed covid-19 to be a blood borne disease while 31% assumed it was transmitted via oral route through contaminated food, as shown in figure 1 and 2.

The participants were generally aware of the symptoms of covid-19 infection, but only half the people believed the infection to be fatal. The majority of the participants were aware of social distancing and protection via masks and disinfecting hands by sanitizers.

While the people were unsure if a vaccine exists yet, an interesting observation presented when only 50% people agreed to be vaccinated against covid-19 when an opportunity presented. The remaining half were either downright refusing to be vaccinated or unsure.



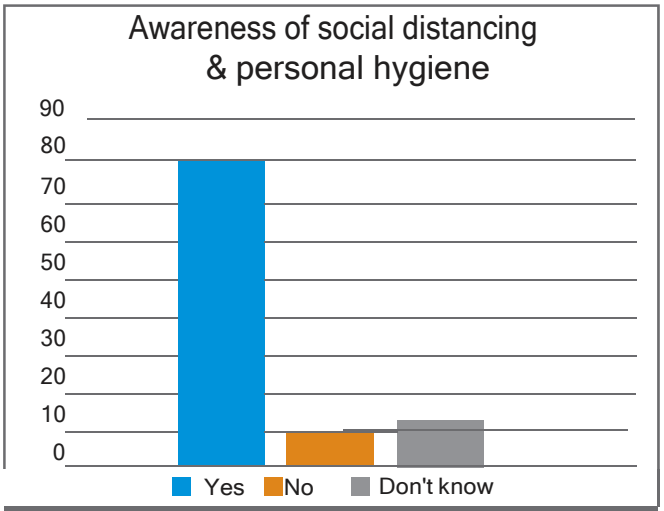


Figure 2. Awareness of social distance & personal hygiene

Discussion:

General population faces many challenges during a Pandemic or Epidemic. Lack of knowledge most certainly leads to negative implications on the preparation to handle any Pandemic. Hence, this study attempted to evaluate the awareness and knowledge needs in the society. Covid-19 not only posed a health risk, but the threat of contagion resulted in isolation and quarantine. Country borders were closed to limit spread and even after removal of such restrictions, traveling was a risk.[18,19]

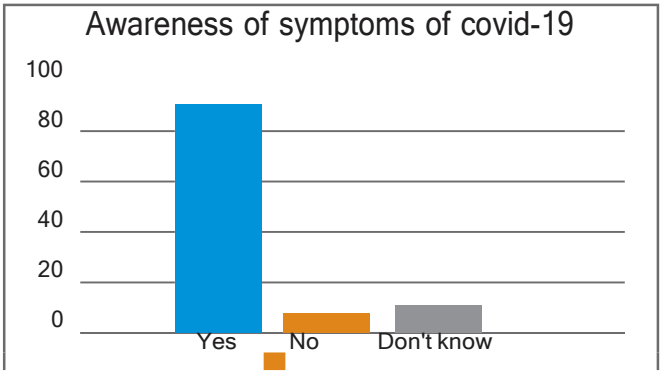


Figure 3. Awareness of symptoms of covid-19

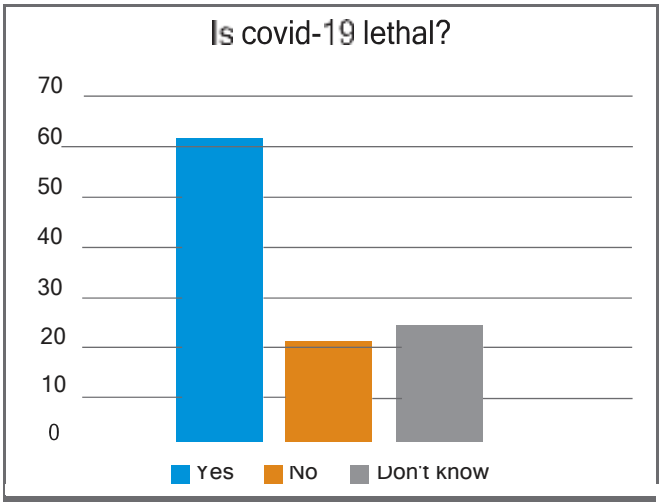


Figure 4. Lethality of covid-19 infection

During the swine flu outbreak in 2009, Rubin et al conducted a telephonic survey in the UK to assess public awareness and anxiety levels in the population. It also inquired if the general population was using personal protective measures in order to limit the spread of the disease.[4] Swine flu and COVID-19 infection both are similar in terms of disease. Both diseases are viral in origin and involve the respiratory system and spread by airborne droplets. Similar precautions are often recommended for the prevention of swine flu and COVID-19 infection. A study from Ethiopia reported, poor knowledge and erroneous believes of healthcare professionals, during the Ebola virus outbreak in 2015 and it urged for intensive training of the healthcare professionals.[5] In a study conducted in Trinidad and Tobago in 2016, following the H1N1 epidemic, it was seen that a significant proportion of the general public was unaware of the seriousness and measures of prevention of the epidemic.[6] As shown in figure 3 and 4.

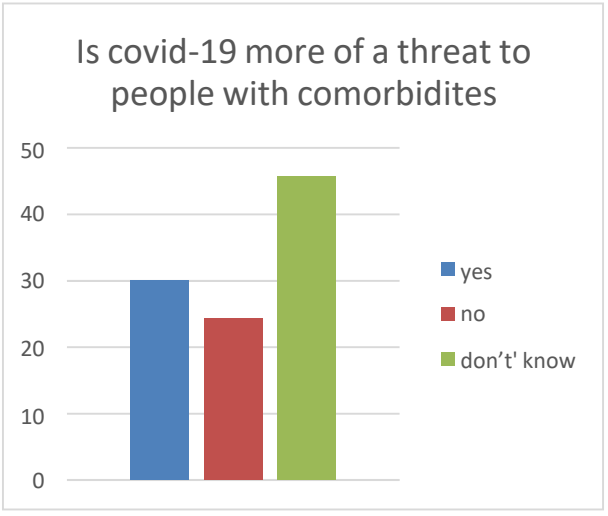


Figure 5. Association of covid-19 with comorbidities

The majority of participants believe that the use of sanitizers, hand wash, and masks during the pandemic can help control the spread of disease. This indicates increasing concern of participants towards personal hygienic measures to avoid COVID-19 infection. 81.4% of patients believe that hand washing, gloves, use of hand sanitizers and masks can prevent the spread of disease. 78.6% of patients accept that social distancing measures are valuable in protecting against COVID19. According to Dalton et al, social distancing via isolation & citywide lockdown is beneficial in controlling the initial transmission of the virus. While hygiene maintenance reduces viral load & infection when already in contact with a potential host.[7] It is reassuring to see over ¾ of the surveyed population aware of basic SOPs.

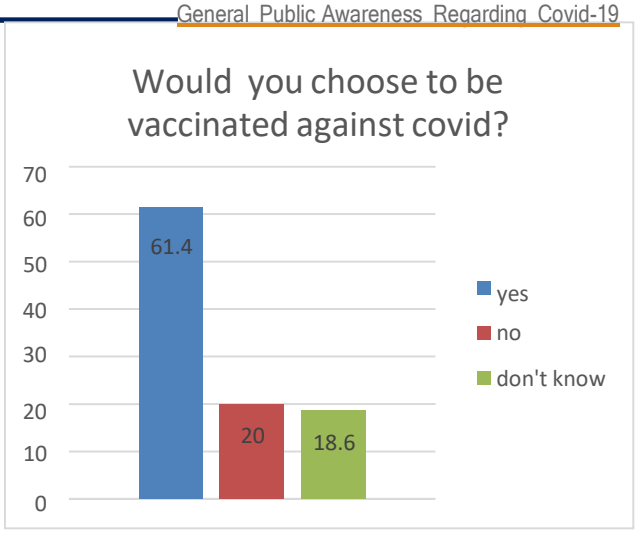


Figure 6. Choice of covid-19 vaccination

Even though majority of people are aware of the pandemic, only 62% agreed that the virus can spread via airborne droplets.[12] 40% even believed that covid-19 is a blood borne disease. Roughly 31% thought that they can contact covid via contaminated food. 90% of the patients are well aware of the common symptoms of COVID19 infection.[13] Despite being aware of the symptoms only 55.7% believe that COVID19 can be lethal. 58.6% of patients believe that PCR, nasal swab, antigen/antibody tests can detect COVID19 infection.

Only 30% of patients surveyed believe that existing medical conditions can aggravate COVID19 leading to more severe symptoms and increasing mortality, while on the other hand 42.9% of patients are unaware of this fact. A study by Morley et al presents that older individuals are more susceptible to infections with poorer outcome. This can attributed to frailty and presence of underlying medical conditions,[8] as shown in figure 5. Similarly, a study from Wuhan, China also reported that greater risk & poorer prognosis existed in patients with one or more comorbid conditions.[9] 31.4% are well aware that as of December 2020 there is no vaccine available worldwide for COVID19. 55.7% of patients recorded that they will get vaccinated against COVID19 if given the chance, while the rest of patients were unsure or would not vaccinate themselves if given the choice in the near future, as shown in figure 6.The phobia of vaccines remains a cause for concern in Pakistan.

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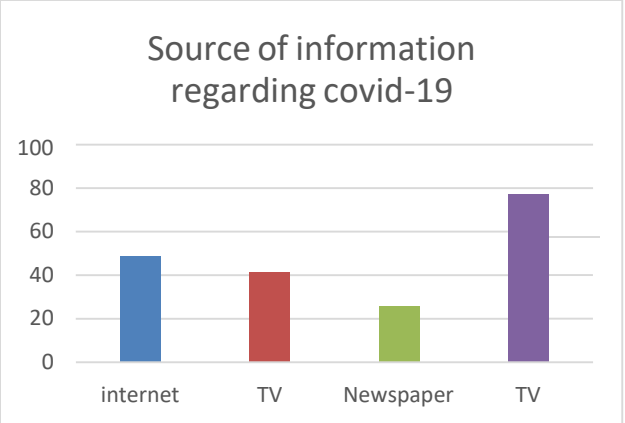

Figure 7. Sources of information regarding covid-19

Since early 2020, covid-19 outbreaks have been occurring from time to time. Even though healthcare workers (HCW) have been providing care and support in these testing times, they are more susceptible to exposure because of close contact with patients. Taiwan reported multiple healthcare associated outbreaks during 2021.16,17 Doctors, nurses and supporting staff members were affected. While most of the affected were not fully vaccinated with both doses, majority of the affected were unvaccinated.[15]

Pakistan is among the nations who have yet to eradicate polio. A study conducted by the researchers at Aga Khan University in 2012 reported that parents admitted lack of participation & cooperation when vaccinating their children against polio. This was more common in rural areas compared to urban. Similarly Shah et al reported that Balochistan had the highest number of polio cases, which is attributed due to poor infra-structure and lack of knowledge and awareness. This is even more alarming considering the population in our survey included citizens from a metropolitan city like Karachi.[10,11] Covid-19 vaccines are in rapid development by major pharmaceutical industries worldwide and are expected to be globally available early 2021. A pandemic situation has called for emergency creation of such vaccines as opposed to long planned research and such unusual times bring their own challenges when it comes to developing vaccines. Their safety and long term side effects do remain a cause for concern but with clinical trials showing as great as 90% success rate, it is remains our last hope of protection against this viral disease.[14] After creation of vaccines, the next course of action is to optimize the regimen of vaccination, booster dosage and surveillance of vaccine efficacy.[20]

Our study showed most of the participants being alerted of the covid-19 pandemic via television followed by internet & social media. This indicates that TV and internet are the most popular media of choice for being aware of latest happenings as shown in fig 7.

Conclusion

By analyzing the results we can observe that most of the surveyed participants were well aware of the SOPs. However, there is still need to educate the masses by providing accurate information on how on the transmission of this disease. Most of the participants received information about covid-19 from television. Government & private bodies should use television to raise awareness during these testing times.

Conflicted of Interest: None
Funding Source: None

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How to cite this article?
Malik MHA, Ameer AB, Khan MT, Iqbal Z, Shan e Zohra, Tariq U. Assessment of the perception of smile esthetics by laypersons, dental students and dental practitioners. J Rehman Coll Dent 2022;3(2): 1-4

Author Contributions

1. Shoaib Ahmed Khan - Data collection, write up
2. Hasham Aleem - Data collection, write up, statistical analysis
3. Batool Zehra- Write up
4. Mohammad Saqib Hameed - Supervision, Design of research, Review
5. Zafar Abbas - Design of research and questionnaire
6. Taha Arshad - Data collection