KAP Study

Perception of Patient's Knowledge Regarding the COVID-19 Pandemic Attending the Dental OPD of Dow Dental College

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ABSTRACT

OBJECTIVE: To understand the patient's knowledge and perception of the COVID-19 pandemic and associated preventative measures.

METHODOLOGY: A cross-sectional research was carried out among dental patients visiting the Dow Dental College Karachi OPD from August to October 2020. The questionnaire was developed in compliance with the COVID-19 community recommendations of the CDC and WHO. The estimated number of dental patients attending the dental OPD each month is 3200; thus, using this as population size, the sample size computed was 344 by using open epi and retaining the power at 80%, the confidence interval at 95%, and the margin of error at 0.05 percent.

RESULTS: In total, 344 patients took part in the research. Regarding the COVID-19 pandemic knowledge, most patients (317/344) thought that fever, fatigue, and dry cough were the most frequent symptoms linked with COVID-19. The majority of them believed that wearing a mask 314/344, i.e., 91.2%, and washing their hands 324/344, i.e.,94.1% properly, was required to reduce the effects of COVID-19.

CONCLUSION: The findings revealed that most participants firmly understood COVID-19 as a pandemic. They demonstrated positive attitudes and excellent behaviors for avoiding disease infection transmission.

KEYWORDS: SARS-Cov-2, physical distancing, PPE Personal Protective Equipment, vaccines, pandemics

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INTRODUCTION

COVID-19 was declared a worldwide pandemic by World Health Organization in 2020 due to its occurrence and severe effects, with cases affecting over 200 countries[1]. Pakistan, a lower-middle-income country (LMIC), registered its first case of COVID-19 in March 2020, and since then, as of June 2021, 940,000 patients have been reported[2]. To mitigate the effect of COVID-19 different crucial steps have been taken by the government of Pakistan, such as smart Lockdown, social distancing, and roll out of COVID vaccines[3,4].

With inadequate healthcare services, a country like Pakistan took prompt and effective actions to restrict the virus's spread and reduce the likelihood of many victims[5]. The National Institute of Health of Pakistan has played a critical role in developing and disseminating measures for preventing and transmitting COVID-19, this has included delivering information on using personal protective equipment and face masks and maintaining good hand and general body hygiene practice[6], the number of COVID -19 cases and fatalities in Pakistan continues to climb, with Province Sindh being particularly hard hit, with 327,604 cases and 5236 deaths[2]. Consequently, careful adherence to prudent procedures is required to reduce the load on the health system. The public's ability to follow these directions is determined by their understanding and views of the situation[7].

It is not uncommon for misinformation and incorrect beliefs to increase in the populace during catastrophic disasters or exceptional conditions, amplifying their fears and leading them astray. Inadequate information impedes their grasp of the nature of the state, prompting them to seek treatment too late[8]. The COVID-19 outbreak has captivated the world's attention since it can potentially create catastrophic political, social, and economic disruption; hence, it calls for considerable worldwide concern and coordinated efforts from all countries to avoid the dangerous spread of COVID-19[9]. Meanwhile, one of the concerns has been community views of the outbreak, and various studies have shown that the effectiveness of government interventional efforts is greatly dependent on people's compliance with these control measures. Public collaboration is critical in preventing the spread of COVID-19, and combating the pandemic necessitates long-term efforts and ongoing attention. There is an urgent need to assess the population's views to boost interventional progress duringcoronavirus[10]; we investigated the perceived knowledge among dental patients regarding

COVID-19.

METHODOLOGY

A cross-sectional study was conducted among dental patients visiting the OPD of Dow Dental College Karachi; the ethical committee approved this study of Dow University of Health Sciences. The study was carried out from August to October 2020. Dental patients who were willing to participate in the study were studied irrespective of any gender visiting the dental OPD greater than 18 years of age. Those patients who did not sign the informed consent and came for emergency dental treatment were excluded from the study. A self-administered questionnaire was designed and was pretested first on the 10% of the population as pilot research; the questionnaire was created following the Centers for Disease Control and Prevention (CDC) and World Health Organization's COVID-19 community recommendations. The questionnaire was divided into three sections: socio-demographic factors, knowledge, and awareness of COVID-19and practices toward COVID-19 prevention measures. The approximate number of dental patients visiting the dental OPD per month is 3200, so keeping this as a population size by using open epi and holding power to 80%, 95 % confidence interval, and margin of error as 0.05%, the sample size calculated was 344.

Statistical Analysis

SPSS version 24 was used for data analysis. The Statistical Package for the Social Sciences (SPSS version 25.0; IBM Corp., Armonk, NY: USA) was used to summarize the primary data characteristics in the research using frequencies and percentages.

RESULTS

Overall, 344 patients participated in the study, out of which 73 (21.22) were males and 271 (78.77) were females. 183/344 were between the ages of 18 - 25 years. The income of most of the patients was less than 25000, most of the patients were educated (**Table I**).

As far as knowledge related to the COVID-19 pandemic is concerned, 317/344 believed that the most common symptoms of COVID-19 are fever, tiredness, and dry cough. According to them, pneumonia was the most common complication related to COVID-19. 294/344 had considerable knowledge that the incubation period required for COVID-19 is 2-14 days (**Table II**)

Regarding the practice and attitude towards the preventive measures (88.96%), they didn't intend to have a vaccination against COVID-19 when it will be fully functional. There was a slight difference in the percentage of participants influenced by the media regarding COVID-19 and its vaccination, i.e. (43.60% yes vs. 56.40% no). 96.51% of them agreed that physical and social distancing and preventive measures are necessary to mitigate the effect of COVID-19. To curb the impact of COVID-19, around 91.27% of them believed that it is required to wear a mask, and 94.1% believed in the importance of hand washing (**Table III**).

TABLE I: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF DENTAL PATIENTS (n= 344)

Variables	Frequency (%)
Gender	
Male	73 (21.22)
Female	271 (78.77)
Age	
18-25	183 (53.19)
26-35	103 (29.94)
36-45	33 (9.59)
46-55	21 (6.10)
55 & above	04 (1.16)
Marital Status	
Single	215 (62.5)
Married	129 (37.5)
Income	
Less than 25000	109 (31.6)
25000-50000	86 (25.0)
51000-100,000	93 (27.03)
100,101-200,000	43 (12.5)
200,000 and above	13 (3.77)
Education	
No formal education	2 (0.58)
Primary education	2 (0.58)
Secondary education	25 (7.26)
Intermediate	113 (32.84)
Undergraduate	132 (38.37)
Postgraduate	70 (20.34)

TABLE II: KNOWLEDGE AND AWARENESS RELATED TO COVID-19 (n=344)

Variables	Frequency (%)
Sign and Symptoms	
Common cold & Stuffy nose	22 (6.39)
Fever, tiredness, and dry cough	317 (92.15)
Nausea, vomiting, diarrhea	5 (1.46)
Complications related to COVID-19	15 (4.36)
Internal bleeding	283 (82.26)
Pneumonia	46 (13.38)
Incubation Period	
Within two days	11 (3.19)
2-14 days	294 (85.46)
15-20 days	39 (11.35)

TABLE III: PRACTICES AND ATTITUDE TOWARDS COVID-19 AND ITS PREVENTION MEASURES (n=344)

Variables	Frequency (%)
Will you get vaccinated	
Yes	38 (11.04)
No	306 (88.96)
Have you got influenced by Media information	
Yes	150 (43.60)
No	194 (56.40)
Fear of COVID virus	
Not too much	80 (23.25)
Slightly	172 (50.00)
Too much	92 (26.75)
Are you following physical distancing and Lockdown to curb the effect of COVID-19	
Yes	332 (96.51)
No	12 (3.49)
Are you wearing a mask	
Yes	314 (91.27)
No	30 (8.73)
Type of recommended mask	
Fabric	54 (15.69)
Surgical	197 (57.26)
N95	93 (27.05)
Are you regularly hand washing	
Yes	324 (94.1)
No	20 (5.90)

DISCUSSION

Pandemics pose a significant threat to any country globally. During such times, the community confronts several obstacles. Lack of awareness frequently leads to an uncaring attitude, which can harm one's ability to tackle these obstacles. The consequences of these epidemics and pandemics are often severe. Fear and anxiety associated with diseases and pandemics also impact community behavior[11]. The accelerated dissemination of COVID-19 is a significant public health risk in Pakistan and worldwide because severe and strict preventive measures, such as lockdowns, have been relaxed[12]. Vaccines are presently being deployed at various levels, although no therapy has been legally licensed against COVID-19, making prevention the primary option in combat against COVID-19. People must have a comprehensive grasp of the pandemic and desirable attitudes toward preventative measures to prevent prevention from being efficient[13]. As a result, this study aimed to assess dental patients' awareness, philosophy, and perceived knowledge.

According to the study findings, more than half of those participating were well-versed in COVID-19 and its prophylactic measures. Our results are consistent with Twinamasiko N et al.'s study in Mulago, Uganda[14], and Zhong and colleagues' study among Chinese people[15]. While on the other hand, Akalu et al.'s study found a significant incidence of common knowledge among chronic illness patients in Addis Zemen Hospital, Northwest Ethiopia[16], this might be because the country was in a state of Lockdown due to COVID-19, and the Ministry of Health broadcast COVID-19 educational messages throughout the country throughout the Lockdown.

Encouragingly, the majority of patients thought COVID -19 is a severe disease that poses a health risk to the population, with 96.5 percent mentioning a lockdown and curfew were essential to contain the pandemic; this is comparable to research performed with the general community in Saudi Arabia[10], in which the majority of the participants agreed Lockdown was an intelligent technique for controlling the epidemic. Fever, dry cough, and tiredness were the most common symptoms reported in our study. These results are consistent with Huynh et al.[17] and Reuben et al.[18], who found an appropriate understanding of COVID-19 symptoms. The majority of the participants were unwilling due to COVID -19 vaccinations despite being educated. The primary reason could be the skepticism toward other vaccination that may have transferred to the covid-19 vaccination. Another reason for this may be that the conspiracy theories sparked by media could play a negative role; also, our society's religious and cultural norms tend to create such disbelief that people avoid vaccination. Polio is a prime example, and Pakistan is still plagued by polio vaccination reluctance. In the Pakistani community, such disbeliefs are fiercely disputed on social media. Such conspiratorial tales have already sown the seeds of resistance to the planned COVID-19 vaccination in a country where vaccine hesitancy impedes the control of vaccine-preventable diseases[19].

Our findings revealed that most individuals followed these instructions, with 96.51 percent adopting social distance, 91.27 percent using masks while outside, and 94.1 percent routinely washing hands. These findings are consistent with the results of a survey conducted by Geltzer P. in the United States and the United Kingdom, in which 92.6 percent and 86 percent of the public, respectively, followed these preventive methods[20]. In the KAP study conducted by Zhong et al., approximately 95-96 percent avoided crowded places, and 97 percent wore a mask when going outside[15]. These findings can be attributed to the disease's extensive public knowledge.

However, several limitations must be considered. The majority of the respondents were educated, so the results of our study may not be generalizable to all demographics, mainly illiterate individuals. Self-reporting of data, like in this study, may result in reporting bias, as in hand hygiene. Furthermore,

because a substantial majority of respondents in this study attended dental OPD for their ailment, this survey may have revealed strong disease awareness. Unfortunately, the research may not have accurately reflected all of the proportions of our modern society; nonetheless, it may have provided a basic summary of the behaviors that exist in the culture. Because of the small number of participants, further research is needed to look at other aspects of COVID-19 in Pakistan, such as the cost burden and availability of SARS-CoV-2 vaccinations among low-income populations.

CONCLUSION

In conclusion, our survey results indicate that the people of Pakistan belonging to low socioeconomic strata have reasonable practices and positive perceptions due to the peak of the COVID-19 infection phase. When it comes to the knowledge of COVID-19, each gender has a different point of view. Health education and health initiatives have attempted to improve the general population's understanding of COVID-19 while preserving safe practices and optimism in people's attitudes.

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AUTHOR CONTRIBUTIONS

Siddiqui S: Conceived the idea, wrote and proofread the article
Abrar SK: Conceived the idea and wrote the article
Kashmiri Z: Conceived the concept, wrote and proofread the article
Mustafa M: Designed analysis, data collection
Nasir Z: Wrote and proofread the article
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