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AWARENESS, ATTITUDE AND PRACTICES RELATED TO COVID-19 IN GENERAL PUBLIC OF TWIN CITIES OF PAKISTAN DURING THE THIRD WAVE: A CROSS SECTIONAL STUDY

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ABSTRACT

Objectives: To determine the Awareness, Attitude and Practices related to Covid-19 in general public of twin cities of Pakistan.

Materials and Methods: This study was conducted across the twin cities, Islamabad and Rawalpindi in the months of August and October 2021. An adaptive cross sectional study was conducted, utilizing self administered questionnaires, distributed amongst patients above 15 years old in multiple hospitals. Confidentiality and voluntary participation was ensured in the collection of data throughout the study.

Results: About 305 patients participated in this study, of which 185 (60.3%) were male and 122 (39.7%) were females. Results showed that majority of the 188 participants (61.2%) believe that Covid-19 spreads due to close contact with an infected person. 177 participants (57.7%) believe that it spreads by coughing, followed by 50 (16.3%) participants believing transmission is due to touching contaminated surfaces. Around 86.3% (265 participants) say that the symptoms of COVID-19 are fever, cough and difficulty breathing. When asked about prevention; washing hands with soap and water, wearing masks, maintaining social distance, avoiding touching nose and eyes with hands and avoiding contact with infected people were the most chosen options by the participants. 229 participants (74.6%) claimed to have arranged for hand washing with soap inside or outside their houses and 133 participants (43.3%) had temporarily closed their homes for outside people.

Conclusion: The general public are well-aware regarding the current COVID-19 pandemic, having basic knowledge of its modes of transmission, prevention and treatment of the disease.

Key words: General Public, Coronavirus virus, Safety Protocols

INTRODUCTION

The 2019 novel Coronavirus (SARS-CoV-2) was declared as a “pandemic” on the 11th March 2020¹ when the disease had disseminated over 114 countries. First discovered in Wuhan, China in December 2019, the disease spread worldwide leading to Covid-19 pandemic. Since then, its alarming infection spread and mortality rate has caused a continuous havoc in

the world.

It is a highly infectious disease spread by direct human-human and animal-human contact via air droplets and virus particles released into the air when an infected person breathes, coughs or sneezes. People may also become infected when touching their eyes, nose or mouth after touching surfaces or objects that have been contaminated by the virus.^{2,3} Signs and symptoms range from mild ones (e.g. runny nose, fever, headaches, loss of smell, loss of taste and fatigue) to severe ones that include difficulty in breathing, pneumonia, respiratory arrest and organ failure.⁴

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The risk of Covid-19 spreading increases in crowded places, close contact settings and confined spaces with poor ventilation. Prevention measures include maintaining a safe distance from others by avoiding poorly ventilated crowded places and prolonged contact with others, frequently cleaning your hands with soap water or an alcohol-based hand rub, wearing masks and covering coughs and sneezes.⁵

Bringing awareness to the public was a challenge in many parts of the world including Pakistan. According to a survey, the total population of the Islamabad Metropolitan area is around 3.1 million with a literacy rate of approximately 75%.⁶ A good level of knowledge is expected among the Islamabad population and this level of awareness could be attributed to the use of media and their reinforcement, especially the social media⁷, the influence of which dramatically increased over the twin cities.

Awareness, attitude and practices related to Covid-19 pandemic in general public has been an ongoing concern throughout the country. According to a survey conducted in the Province Sindh⁸, the participants that belonged from the province of Sindh, showed much awareness (76%) and basic knowledge regarding the Covid-19 pandemic⁸. Therefore the objective of carrying out our research was to analyze and assess the awareness, attitude and practice present in the population of the twin cities.

The aim of this study is to determine the Awareness, Attitude and Practices related to Covid-19 among the general public of twin cities of Pakistan. This is essential in order to identify any inadequacy in the knowledge and can be educated to enhance their awareness and attitudes regarding the protective approaches against Coronavirus.

MATERIALS AND METHODS

This study was conducted across the twin cities of Pakistan, Islamabad and Rawalpindi, which coincide within the capital of the country. An adaptive cross-sectional study was carried out among the general population of the twin cities from August to October 2021 to assess their knowledge, attitude and perceptions regarding COVID-19. The study utilized a self-administered, hand-written questionnaires distributed among the patients arriving in various hospitals in the capital region. The questionnaire was originally in English but was later translated in Urdu as well in order to convey

the questions in a better way to the participants for people who are not fluent in the English language. The targeted population consisted of 307 participants aged 15 years and above. The participants were permanent residents of Pakistan and voluntarily took part in the study. Furthermore, the questionnaire consisted of a consent portion in which the objectives, voluntary participation and confidentiality were clearly conveyed to the participants. Ethical approval was obtained from the Ethical Approval Committee of Islamic International Dental Hospital (IIDH) Islamabad.

The following demographics were recorded in the questionnaire; name, age, gender, marital status, occupation, education, number of family members and residential area. A hand-written questionnaire was circulated to the conveniently available patient population (n=307) of OPD of a dental hospital in Islamabad. It comprised of a demographics section and 20 questions that was the main theme of our research. Each question had 3 to 6 options to choose from. Participants were told to select the most apt answer among the options and were allowed to select more than one option. The questionnaire was divided into three parts; namely the demographics, the portion that assessed the knowledge towards COVID-19 and the third portion assessed the attitude of the participant towards the prevention and curative measures during the current pandemic. To evaluate the knowledge of COVID-19, general questions regarding the transmission, symptoms and treatment of COVID-19 were included. For example, "How is COVID-19 spread?"; "What are the symptoms of COVID-19?"; "Does it affect only humans?"; "Is it transmitted from animals to humans?" etcetera.

In order to assess the participant attitude towards the pandemic, the questions included revolved around the knowledge towards COVID-19 treatment and the steps of prevention. For example, "What to do to prevent coronavirus?" with options like "Wash hands", "Avoid touching nose and eyes", "Maintain social distance", "Avoid contact with infected people" etcetera. The data derived from the questionnaire was analyzed using Statistical Package for Social Sciences (SPSS IBM Corp) version 22. Descriptive statistical analysis described the items included in the survey. Frequency and percentages of qualitative (age, gender, occupation, education etc) and quantitative variables were calculated.

RESULT

The demographic details of the participants are

summarized in Table 1. The participants in this study comprised 60.3% males and 39.7% females. The age distribution revealed that 35.2% were aged 26-35 years, 38.8% were 36 and above, and 26.1% were 15-25 years old. Among the participants, 71.0% were married, 29.0% were unmarried, and the majority were non-government employees (50.5%). Higher education was prominent (28.0%), while urban residents constituted 73.3% of the sample. Families with equal to or more than five members accounted for 69.1% of the participants.

The possible ways of human-to-human transmission of COVID-19 was asked from the general public. The results illustrated in Table 2 indicate that 188 participants (61.2%) believe it spreads due to close contact with an infected person which accounts for the

majority of the population. 177 participants (57.7%) believe that it spreads by coughing, followed by 50 (16.3%) participants believing there is transmission with touching contaminated surfaces. Around 21 participants (6.8%) believed it transmitted by eating infected animal products and 21 participants (6.8%) were unaware of the transmission.

Around 86.3% (265 participants) say that the symptoms of COVID-19 are fever, cough and difficulty breathing followed by 18 participants (5.9%) who believed that sore throat and blocked nose were the symptoms. Only 6 participants (2%) said the symptom of COVID was headache while the remaining 18 participants (5.9%) were unaware of the symptoms.

When asked about the prevention, washing hands with soap and water, wearing masks, maintaining social distance, avoiding touching nose and eyes with hands and avoiding contact with infected people were the most chosen options by the participants. Some participants chose all the options to be apt in this particular question.

When asked what initiative has been taken by the participants to protect their family members, around 229 participants (74.6%) said they have arranged for handwashing with soap inside or outside their houses and 133 participants (43.3%) had temporarily closed their homes for outside people.

It was asked from the participants the possible problems that were faced to create awareness in their families regarding COVID-19 awareness and 156 individuals (50.8%) said that they faced no problems. Among the problems, reluctance to use face masks was the most prevalent and chosen by 109 (35.5%) individuals. It was asked about the possible treatments and 237 (77.2%) individuals chose that supportive treatment was the way to treat coronavirus while 49 individuals (16.0%) went with the option of vaccination.

DISCUSSION

For a long time, the Coronavirus has been a regular topic of conversations and discussion among the general public and the media as well. If not anything, this has raised the awareness of the general public regarding the prevention from the virus and awareness of its spread. As far as the prevention is concerned, in this study, a majority of participants (72%) displayed an awareness of handwashing with soap and water which has been a persistent reminder for the public through

Table 1: Demographic details of participants

Gender	n	%
Male	185	60.3
Female	122	39.7
Age		
15-25 years	80	26.1
26-35 years	108	35.2
36 and above	119	38.8
Marital status		
Married	218	71.0
Unmarried	19	29.0
Occupation		
Student	12	3.9
Housewife	43	14.0
Government employee	43	14.0
Non-government employee	155	50.5
Unemployed	54	17.6
Education		
Primary	3	1.0
Secondary	64	20.8
Intermediate	52	16.9
Bachelors	81	26.4
Higher education	86	28.0
No education	21	6.8
Residence type		
Urban	225	73.3
Rural	82	26.7
Number of family members		
Less than 5	95	30.9
Equal to or more than 5	212	69.1

Table 1: Results of questionnaire

How is COVID spread?	n	%
Coughing	177	57.7
Contaminated surfaces	50	16.3
Contact with infected animals	15	4.9
Eating infected animal products	21	6.8
Close contact with infected person	188	61.2
Not aware	21	6.8
When do symptoms appear?		
2 to 5 days	85	27.7
2 to 14 days	198	64.5
Not aware	24	7.8
What are the symptoms of COVID-19?		
Fever, dry cough, difficulty breathing	265	86.3
Sore throat, blocked nose	18	5.9
Headache	6	2.0
Not aware	18	5.9
Who is most at risk for COVID-19 infection?		
Old age	246	80.1
Pregnant women	13	4.2
Children	59	19.2
Individuals with cancer, diabetes, chronic respiratory diseases	66	21.5
Migrants	79	25.7
Not aware	15	4.9
What to do to prevent coronavirus?		
Wash hands with water and soap	221	72.0
Avoid touching eyes and nose with hands	154	50.2
Avoid contact with infected people	151	49.2
Wearing masks	172	56.0
Maintaining social distance	154	50.2
Maintaining self-quarantine	93	30.3

social media, television media as well as brochures put up in almost every public place.

Considering self-quarantine and social distancing 30.3% and 50.2% of the participants respectively chose the options which means that they believe that cancelling social events as a whole and staying at home would be a way to prevent the spread of Coronavirus. This can be correlated with a study conducted in Sindh during the first wave of Coronavirus where a strikingly high number of participants (98%) believed that denying social communication and staying at home is an effective way to prevent the onset and spread of

Taking all family members in home quarantine	75	24.4
Strengthening to health care	63	20.5
Creating a strong voluntary force to fight COVID-19	44	14.3
Have you taken any initiative to protect your family members?		
Temporary closure of outside people coming inside home	133	43.3
Arrange for hand washing with soap inside or outside home	229	74.6
Wash hands with soap after touching pets	59	19.2
Which of the following describes COVID-19 treatment?		
Supportive treatment	237	77.2
Vaccine	49	16.0
Don't know	21	6.8
Have you faced any problems to create awareness in your family about COVID-19?		
Negligence about severity of the disease	73	23.8
Reluctance to use masks	109	35.5
Not being able to stop going out of the house	56	18.2
Don't face any problem	156	50.8
How is COVID transmitted?		
Humans to animals	51	16.6
Animals to humans	99	32.2
Animal products (e.g.: milk, meat)	61	19.9
Well-cooked products	30	9.8
It is important to use face mask.	280	91.2
It is important to wash hands and face after coming from outside	292	95.1
It is important to report a suspected case to health authorities	203	66.1

the Coronavirus.⁸

A significant number of participants displayed enough awareness regarding transmission i.e. spread by contact with infected person (62%) and by coughing (58%). This has also been endorsed publically and on electronic media for the general public. When asked about treatment, majority (77.2%) of the participants chose supportive treatment to the most apt option. On the other hand, only a small amount of participants chose vaccine (49%) as the treatment option for coronavirus. The general public has been well informed by the authorities and the media regarding the significance of vaccination and most patients are usually clear about

the fact that vaccine does not treat the symptoms of Coronavirus, but serves as a preventive measure to decrease the severity of the symptoms⁹, especially in old patients and patients with underlying systemic debilitating diseases e.g. diabetes mellitus.¹⁰

Regarding measures taken by the general public, 74.6% of the participants have claimed that they have arranged for a handwashing station within and outside their homes since handwashing is probably the most convenient and the easiest measure for which practice can be endorsed on a small scale. In our study, over 95% of the participants believed that washing hands and face is important to prevent the spread of Coronavirus. The second prevalent option (43.3%) was temporary closure of their home for people living inside and preventing outside people from entering the houses. On a small scale, the aforementioned two practices that were expected to be followed were chosen by most of the participants in our study. This shows good motivation and will power of the participants to carry out the preventive strategies to break the chain of COVID-19 spread.

When our participants were asked about the challenges they had to face in endorsing preventive practices, almost half of them (50.2%) said that they faced no problems. Among the problems faced, reluctance to use masks was the most prevalent (35.5%). According to a study conducted in USA and Canada, it was concluded that the reluctance to wear masks is because of wanting to have unimpeded social interactions and also a belief that masks are not effective.¹¹ According to a report by The Guardian, this belief dates back to 1919 when Spanish flu first originated.¹² There are other examples in history that demonstrate that this has not been the first time that the authorities have faced challenges from general public in following the preventive strategies against a pandemic.¹³

CONCLUSION

The respondents of our study were well-aware regarding the current COVID-19 pandemic, its modes of transmission and basic knowledge regarding prevention and treatment of the disease. Most of the participants were motivated to carry out preventive measures to halt the spread of the disease. It was noted that the major challenge that was faced in endorsing COVID-19 practices was the hesitation of general public to wear masks during public interaction.

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