KAP STUDY

Awareness, Attitude and Practices Related to COVID-19 Pandemic in General Public of Province Sindh, Pakistan

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ABSTRACT

Background: The outbreak of COVID-19 started from Wuhan, China and spread throughout the world, from the day it infected first person until now it has been the leading cause of death in 2020. It has changed the daily life routine of people and is responsible for the adaptation of practices as precautionary measures the current study was aimed "to assess the knowledge of the public about COVID-19 and to investigate their attitude and practices during lockdown".

Methods: It was a cross sectional study conducted by the Masters in Healthcare Management students of Ziauddin University Karachi, from 28 March to 5 April 2020 during COVID-19 Pandemic Lock down. The sample size was n=384. A questionnaire based on three forms was formulated to record the Knowledge Attitude and Practice of people about COVID-19 and data was analyzed.

Results: In the study, 53.5% (316) were male and 46.8% (282) were female participants, most of them were from Karachi 62.1% (374), 42.4% (255) were highly educated (masters) and 47% (283) were health care providers (Doctors, Nurses, and Paramedic Staff etc.). As far as, attitude is concerned people showed a positive response towards Government policies announced for this pandemic and they were following a good hygiene practice.

Conclusion: The participants showed much (76%) awareness regarding this pandemic i.e., COVID-19, its outbreak and basic knowledge about it. Most of them were satisfied by the measures taken by the Government of Province Sindh.

Keywords: Awareness; Attitude; Practices; COVID-19; Public.

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INTRODUCTION

Coronaviruses infections are emerging respiratory viruses and known to cause illness ranging from the common cold to severe acute respiratory syndrome (SARS)[1,2]. The current outbreak of novel coronavirus (COVID-19) in Wuhan City, Hubei Province of China has emerged as a global outbreak and significant public health issue[3]. On 30 January 2020, the World Health Organization (WHO) named the disease Covid-19 caused by the corona virus. WHO has declared this pandemic a Public Health Emergency of International Concern (PHEIC)[4,5]. The disease is highly infectious and its main clinical symptoms include fever, dry cough, fatigue, myalgia, and dyspnea. Corona virus is zoonotic pathogens that can be transmitted via animal-to-human and human-to-human[6].

There is no evidence right now to suggest that Covid-19 will disappear in summer, a senior WHO expert said, urging countries to fight the new virus decisively at current stage. "We do not know yet what the activity or behavior of the virus will be in

different climatic conditions". In Pakistan the first case was reported on February 26 in Karachi and till mid of March provisional government lock down the province of Sindh because of continuous rise in number of cases. People were also required to stay at home to avoid contacting with others, maintain social distancing and personal cleanliness. All the measures were taken according to WHO CDC prevention guidelines[7, 8].

The government has imposed lock down so that the people stay at home and adopt social distancing. Educational institutions, government and private offices, mosques, shopping centers and bazaars are also closed across the country. So far, the death rate from the outbreak of COVID-19 has not been alarming in Pakistan but still the cooperation of the people and national unity must be shown in order to fight this virus with courage and determination. The current study was aimed to assess the knowledge of public about COVID-19 and to investigate their attitude and practices during lockdown. This survey has the potential to highlight the knowledge gaps and important elements which could be helpful to encourage Pakistani people and other authorities to play more active role not only in prevention and treatment and possibly to overcome this rapidly growing and highly contagious disease.

METHODS

It was a cross sectional study conducted by the Masters in Healthcare Management students of Ziauddin University Karachi, from 28 March to 5 April 2020 during COVID-19 Pandemic Lock down. The sample size was calculated based on the proportion of 50% at bound of error 5% and confidence interval of 95%. Calculated sample size was n=384. A questionnaire based on three forms was formulated to record the Awareness, Attitude and Practice of people about COVID-19. The proforma was shared with the people by using Google form link that was sent to them using social media (WhatsApp, Facebook) and responses were recorded for 3 days. The Google survey started with participant consent and further assessment was performed after the consent. Data was analyzed using SPSS version 20. Results are expressed in frequency and percentages. Ethical approval for the project was taken from ERC of Ziauddin University.

RESULTS

Total 610 participants submitted their response in 3 days after that link was kept off for responses and data was analyzed. Thus, 12 participants did not answer for all the questionnaires and they were excluded from study. In this study, 53.5% (316) were male and 46.8% (282) were female participants, most of them were from Karachi 62.1% (374), and followed by other cities of province Sindh i.e. 47.9%. Educationally 46.7% (281) were graduate, 42.4% (255) were highly educated (masters), and 47% (283) were health care providers (Doctors, Nurses, and Paramedic Staff etc.). The major age group who participated in our study was 21-30 years (71.9%) followed by 31-40 years (14.8%). Most of the participants were aware about the disease outbreak, cause, mode of transmission, sign and symptoms and preventive measures. However, when asked about most susceptible age group for the infection 49.2% (296) as shown in Table 1.

Table 1: Awareness of participants regarding COVID-19 (n=598).

Participants awareness	Response in frequency n(%)				
1. The disease outbreak started from:	**China**	**Italy**	**Iran**	**America**	**Others**
	593 (98.5%)	3 (0.3%)	2 (0.2%)	1 (0.1%)	1 (0.2%)
2. Cause of disease	**Bacteria**	**Virus**	**Fungi**	**Parasite**	**Other**
	15 (2.5%)	582 (96.5%)	0 (0%)	0 (0%)	3 (0.5%)
3. Disease can be transmitted through: Frequency (%)	**Air**	**Person to person contact**	**Contact with infected person and objects touched**	**Sexual route**	**Others**
	37 (6.1%)	118 (19.6%)	440 (73.1%)	1 (0.2%)	7 (1.5%)
4. Most susceptible persons for the disease are:	**Children**	**Young sters**	**Adult and older**	**Disease is not specific to any age group**	
	16 (2.7%)	4 (0.7%)	296 (49.2%)	286 (47.5%)	

5. An infected person may show sign and symptoms of:	**5 days**	**6-10 days**	**11-15 days**	**Up to 21 days**	
	94 (15.6%)	95 (15.8%)	380 (63.1%)	32 (5.3%)	
6. Si gns and symptoms of COVID – 19 are:	**Dry cough, fever and breathlessness**	**Productive cough, fever and flu**	**Allergy, seizers and red spots on skin**	**Seizers, fever and cough**	**I don't know**
	565 (93.9%)	28 (4.7%)	1 (0.2%)	2 (0.3%)	4 (0.7%)
7. If a person had a contact with infected person what should he/she do:	**Isolate himself/herself and wait for sign and symptoms to appear**	**Immediately rush for COVID – 19 screening test**	**Live a normal routine life**	**Disinfect him/her self**	
	426 (70.8%)	137 (22.8%)	1 (0.2%)	35 (5.8 %)	
8. Is there any specific treatment/ vaccine available for COVID-19?	**Yes**	**No**	**I don't know**		
	27 (4.5%)	515 (85.5%)	58 (9.6%)		
9. What are the chances of recovery after being infected by COVID – 19?	**5%**	**50%**	**80%**	**>95%**	
	22(3.7%)	100 (16.6%)	179 (29.7%)	295 (49%)	
10. If someone is having symptoms and travelling history:	**He/she hide it as it may require quarantine**	**He/she inform about all related history to doctor**	**Treatment of COVID – 19 is expensive it is better to hide the history from doctor**	**Self-medication is an effective way to deal with the symptoms**	
	83 (13.8%)	491 (81.6%)	10 (1.7%)	13 (2.2%)	
11. The primary source of knowledge shared by you in above questionnaires is:	**TV/News paper**	**Social media Apps (FB, WhatsApp)**	**Self -surfing on Internet**	**Others**	
	188 (31.2%)	322 (53.5%)	75 (12.5%)	17 (2.8%)	

When asked about attitude (Table 2) and practices (Table 3) most of those positively on taking preventive measure and by the policies of the Sindh Government planned for this Pandemic. They also reported that negligence by the public in this lockdown may worsen the situation and may be a cause of increase in number of cases and may provoke the incidence from hundreds to thousands.

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Table 2: Attitude of participants regarding COVID-19 (n=598).

Questions based on participants attitude	Response in frequency (%)			
	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Government has taken good measures and provided sufficient information COVID–19	497 (82.6%)	349 (58%)	53 (8.8%)	8 (8.3%)
2. We should stay at home avoid social communication as directed by government and healthcare professionals	497 (82.6%)	99 (16.4%)	4 (7%)	0 (0%)
3. We should avoid traveling to other cities during this pandemic	503 (83.6%)	88 (14.6%)	5 (8%)	5 (8%)
4. Do you think this lock down will be helpful in preventing the spread of infection?	393 (65.3%)	188 (31.2%)	18 (3.0%)	2 (0.3%)
5. Do you think Government policies are effective in this outbreak?	145 (24.1%)	383 (63.6%)	70 (11.6%)	3 (5%)
6. Despite lock down people are not staying at their homes	212 (35.2%)	339 (56.3%)	40 (6.6%)	8 (1.3%)
7. Non-Serious attitude of people is leading to an increase in number of cases of COVID-19 in Sindh	412 (68.4%)	171 28.4%)	14 (2.3%)	2 (0.3%)

Thus, 98.9% participants responded "positive" when asked about practices of prevention followed by them as shown in Table 3. The role of social media, TV and other internet sources in spreading the knowledge and awareness is also acknowledgeable as most of the participant`s responses are highlighting that the primary source of information to them was social media followed by TV and other resources.

Table 3: Practices followed by participants (n=598).

Questions based on followed practices	Response in frequency (%)		
	Yes	No	I don't know
1. We should wash our hands frequently:	596 (99.0%)	4 (0.7%)	0 (0%)
2. We should avoid touching mouth, nose and eyes	587 (97.5%)	10 (1.7%)	4 (0.7%)
3. While going out of home, we should cover our face:	582 (96.7%)	15 (2.5%)	4 (0.7%)
4. We should keep hand sanitizer while going out to sanitize our hands:	585 (97.2%)	15 (2.5%)	2 (0.3%)
5. We should cover our face while sneezing or coughing:	595 (98.8%)	5 (0.8%)	2 (0.3%)
6. If we develop any of symptom of COVID-19 we should isolate ourselves	596 (99.0%)	2 (0.3%)	1 (0.2%)
7. It is our national responsibility to follow instructions provided by government	597 (99.2%)	1 (0.2%)	1 (0.2%)

DISCUSSION

Currently, Corona virus is the daily discussion topic among the public and media too, which resulted in increasing public attention towards their awareness and preventive measures towards covid-19. In this study, 76% participants showed the sufficient basic knowledge regarding COVID-19 as expected graduate participants and pharmacist/healthcare providers are more knowledgeable than others are and there was no significant difference in knowledge of COVID-19 when genders were compared. But this frequency is higher than the similar study conducted in Riyadh to evaluate the public awareness regarding swine flu and they reported only 51% respondents were knowledgeable about the viral breakout[11]. However, the people have basic knowledge regarding COVID-19 that it is viral disease (96.5%), mode of transmission (73%), signs and symptoms of disease (93.9%) and vaccine/treatment availability (85.5%). However, the results regarding knowledge of susceptible age group signs and symptoms of COVID-19 are not satisfactory and it highlights the need to raise more awareness[12]. As our study suggests, most of the participants reported the main source of their knowledge is Internet (53.5%) and TV (31%). For this reason, attention of higher authorities is required to improve these mediums to be used for health promotion specifically for such emerging infectious diseases[13].

Survey results identified that 98% people who belongs to different professions, different age groups and different regions of Pakistan are following a good hygiene practice. These findings are parallel with the findings of previous study conducted to assess the public awareness in Saudi Arabia, their participants also showed high level of personal hygiene practices[5,14,15].

Generally, most of the public has a positive attitude towards the roles of guidelines provided for COVID-19 prevention. Another important finding is that more than 89% participants showed support for the government actions to control corona virus and 88% respondents find Government policies effective for this pandemic. Among which most participants are in the age group of 20-30 years old and it has been found that female gender has more believe in government abilities as compare to males. Whilst, 98% participants believe that they should stay at home and avoid social communications and these findings can be compare with a survey conducted in America for COVID-19 public awareness which reported 80% respondents are willing to stay at home and skip social events[16].

There were some areas where public knowledge was relatively low, for example every 5 out of 10 respondents believed that the most susceptible persons for COVID-19 are adults and older age group and only 4 out of 10 respondents understands that COVID-19 is not age specific. When asked about chances of recovery after getting infected by COVID-19 only 5 out of 10 respondents were aware that there are more than 97% chances of recovery after getting infected from COVID-19[17,18]. Previously many studies have been conducted to demonstrate the level of knowledge regarding other infectious viral breakouts like Avian Influenza, influenza strain H1N1 and swine flu. There is also a survey conducted in India for COVID-19 awareness in healthcare workers[19,20]. However, to the best of our knowledge, this is the first survey conducted in Pakistan to assess the knowledge and attitude of people toward COVID-19. Therefore, this study could be helpful for public health officials in planning healthcare related education or awareness programs for other emerging infectious disease[21,22]. As it was lock down in province usage of technology was preferred, Google form based survey was conducted and questionnaire was filled by sending the link using social media apps so most of the enrolled participants were educated.

CONCLUSION

The participants of our study were much aware regarding this Pandemic COVID-19, its outbreak and basic knowledge. Most of them seemed to be satisfied by the measures taken by Government of Sindh and they showed that they are following hygiene practices as preventive measure as instructed by Health Care Professionals. The only misconception / gap that needs be addressed are the knowledge regarding age of onset and signs and symptoms of disease.

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CONFLICT OF INTEREST

There was no any conflict of interest.

ETHICS APPROVAL

The Institutional Review Board of Ziauddin University approved this research.

PATIENTS CONSENT

Proper consents were obtained from the participants of the study.

AUTHORS' CONTRIBUTION

All the authors contributed equally in manuscript writing and analysis the final submitted copy was critically reviewed and approved by FA.

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