**Knowledge of COVID-19 Symptoms and Prevention among Pakistani Adults:
A Cross-sectional Descriptive Study**

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Abstract

Objectives: this study was conducted to assess the awareness of COVID-19, and to ascertain the knowledge about symptoms, and prevention among Pakistani adults.

Methods: The cross-sectional descriptive study was conducted in March 2020 in Sargodha, Pakistan. Sample was consisted of 200 male and female adults age ranged between 21-50 years. A self-constructed piloted semi structured questionnaire was used for data collection. SPSS 24 was used for data analysis.

Results: Of the 200 participant, 148 (74 %) were male and 52(26%) were female. 98 (49 %) were between 21-35 years of age while 102 (51%) were between 35-50 years. Overall, 174 (87%) participants knew about COVID-19; 170 (85 %) believed that the disease is dangerous for elderly or already sick people, and 134(67%) thought that they know about the symptoms 144 (97 %) male and 63 (33 %) were female were aware about the common symptoms of COVID-19 such as fever, cough and tiredness.

Conclusion: There is a need to improve the awareness of people regarding the symptoms and seriousness of the disease so that people take preventive measure to protect themselves and rapid transmission of the disease could be controlled.

Key words: Covid-19, pandemic, knowledge, symptoms, global health emergency

1. Introduction

The coronavirus disease 2019 (COVID-19) is a pandemic outbreak originated in China in December, 2019 [1]. The World health organization in February, 2020 declared it a global health emergency [2] and on 11th march recognized a pandemic [3]. The disease has been spreading all over the world as of 3 April 2020; in more than 180 countries, the reported confirmed cases of COVID-19 are more than 1.01 million [4]. COVID-19 is a highly infectious disease with symptoms of runny nose, nasal congestion, fever, cough, dyspnea, fatigue, diarrhea and myalgia [5]. In severe cases, acute respiratory syndrome, coagulopathy or impairment in forming blood clots, metabolic acidosis or septic shocks may also develop [6].

The findings of a study which was conducted in December, 2019 to explore the clinical features of the disease reported that out of 41 patients, most prevalent symptoms reported by patients were fever (98%), cough (76%), and fatigue (44%). Whereas the less common symptoms were sputum production (28%), headache (8%), hemoptysis (5%) and diarrhea (3%) [7]. Till now the novel COVID-19 has no specific treatment therefore, physicians are mainly relying on a variety of treatment techniques including antiviral drugs, steroids, immunosuppressant plasma from recovered patients [8], psychological support and traditional Chinese medicines [5].

Pakistan is a densely populated country that is dealing with many challenges including efforts to reform the crippling economy, untapped public health structure, weak institutes and poor governance at local level. All these factors make Pakistan that is already facing the pandemic, more vulnerable toward the devastating consequences of COVID-19. There are more than 7000 confirmed cases, and 135 people have lost their life [9]. The Govt. is trying to promote awareness in people all across the country. Lock down has been implemented to restrict the mobility of people. They are also continuously advising people to stay at home and to maintain social distance

in case they have to come out of their home due to certain reasons. But still incidents of non-serious attitude can be seen from time to time. Due to lack of precautionary measures number of cases are increasing.

2. Subjects & Methods

The current cross-sectional descriptive study was conducted in March 2020 in Sargodha, Pakistan. Convenience sampling technique was used to draw the sample of 200 adolescents and adults including both male and female. A semi-structured questionnaire was constructed by carefully reading the material available on the disease and validated by trying out among the participants. Those participants were excluded from advance analysis. The questionnaire consisted of four sections including: demographic details such gender, age, education, working status and locality, awareness about COVID-19 (12 questions), knowledge about symptoms of COVID-19 (9 questions), and preventive practices (9 questions) [3,8].

Approval from institutional review committee was obtained. Participants were contacted at various places including educational institutes, offices, or rural areas. They were informed about the nature and rationale of the study and informed consents were obtained from all of them. Participants were assured about the confidentiality of their data. The semi-structured questionnaire was given to the participants the perception, knowledge and preventive strategies were assessed using two options – yes, and no. Data were analyzed using SPSS 24. Frequencies and percentages were computed for all variables. Chi-square test was used to find out the association between the two groups (male and female) and their knowledge of COVID-19.

3. Results

A total of 270 participants were contacted; 190(70%) male and 80(30%)female. Of them, 70(26%) refused to participate. The final sample stood at 200(74%), and of them 148(74%) were males and 52(26%) were females.

Table 1

Demographic Characteristics of the participants (N = 200)

Category	f	%
Gender		
Male	148	74%
Female	52	26%
Age		
21-35	98	49%
35-50	102	51%
Education		
Graduate	90	45%
Postgrad and above	94	47%
professional	16	8%
Employment		
Working	168	84%
Non-working	32	16%
Locality		
Urban	124	62%
Rural	76	38%

Table 2**Awareness of COVID-19 among Participants (N = 200)**

Sr.No	Items	Yes		No/Don't know	
		<i>f</i>	%	<i>f</i>	%
1	Do you hear about Coronavirus	174	87%	26	13 %
2	Is there any medicine for COVID-19	86	43%	224	57%
3	Are antibiotic effective for this?	102	51%	98	49%
4	Is there any vaccine for it	46	23%	154	73%
5	Do you know about its symptoms?	134	67 %	66	33%
6	What do you think it's a minor flu like problem?	110	55%	90	45%
7	it can only survive in cold weather	152	76%	48	24%
8	it is not life threatening?	104	52%	96	48%
9	Is it dangerous for elderly or already sick people?	170	85%	30	15%
10	Is it dangerous for people of all ages?	64	32%	146	68%
11	Is drinking hot water is effective	94	47 %	116	63%
12	Eating ginger is the cure for COVID	134	67%	66	33%

Table 3**Knowledge about Symptoms of COVID-19 among Participants**

		Correct answer Male	Correct answer Female	<i>P</i> value
1	common symptoms of COVID-19 are fever, tiredness, and dry cough	144 (97%)	33 (63%)	.000
2	Some people may have aches and pains,	90 (61%)	17 (33%)	.000
3	Some people may have nasal congestion	65 (44%)	14 (27%)	.030
4	Runny nose is also a symptom	84 (57%)	15 (29%)	.000
5	sore throat is also a symptom	78 (53%)	29 (55%)	.702
6	Some people may have Diarrhea	58 (39%)	12 (24%)	.054
7	High fever (Temperature)	138 (93%)	43 (97%)	.050
8	Most people recover from the disease without special treatment.	96 (65%)	41 (79%)	.060
9	coughing	132 (89%)	42 (80%)	.120

Table 4**Awareness of Prevention Practices among Participants (N = 200)**

	Practices	Yes		No	
		<i>f</i>	%	<i>f</i>	%
1	Wearing mask	156	78 %	44	23%
2	Regularly and thoroughly clean your hands	166	83 %	34	17%
3	covering your mouth and nose with your bent elbow or tissue when you cough or sneeze	128	64%	72	36%
4	Avoid touching eyes, nose and mouth.	166	83%	34	17%
5	Social isolation is best when someone around you is having symptoms	154	77%	46	23%
6	Keep at least I meter distance when someone is coughing	110	55%	90	45%
7	Avoid going outside unnecessarily	136	68%	73	27%
8	Lock down is compulsory	142	71%	58	29%
9	Govt should quarantine those having doubt of symptoms	108	54%	92	46%

4. Discussion

As COVID-19 is spreading very rapidly all around the world and causing serious health issues, there is a dire need to make public aware of the precautionary measure so that they can save themselves from this dangerous disease. The present study was conducted to explore the risk perception, knowledge of symptoms and preventive strategies among general public in Pakistan. Pakistan is a developing country and most part of the population are living in the rural areas.

In this study cross sectional study, 74% participants were male while 26% were female; age ranged between 21 to 50 years. The main reason for this broad age range was to get a more comprehensive view of the people's level of awareness about the disease, knowledge about symptoms and preventive techniques. People having different education levels were included in the study, most of them belonged to urban areas. Out of 200 participants 87% reported that they had heard about corona virus, and 67% confirmed that they know about the symptoms of the COVID-19. 55% believed that this is not a serious problem and just like a mild flue in nature. 76% participant were of the opinion that the virus can only survive in cold weather. 85% were sure that the disease was alarming for elderly only while 32% considered it life threatening for all age groups. 67 % participants have given their view in favor of eating ginger to treat the COVID-19 symptoms, while 68 % reporting that drinking hot water has no effects on the symptoms.

Further it was observed that male participants are more aware of the symptoms of COVID-19 as compared to female respondents. One reason of this difference between the level of knowledge between the two gender might be our traditional gender roles. In patriarchal Pakistani society, men are considered as the figure head who are responsible for the decision making about family while women are considered to be focused more on household and taking care of family and home [10] Men have more social interaction as they have to go outside to earn for the family so they get more opportunity to interact and discuss current news including psychosocial issues with others and update their knowledge. Though this social mobility increases their knowledge but also make them more vulnerable as they have to go out of home more frequently to meet the different needs of their family as recently reported by Govt of Sindh, that during the pandemic 68.3% male and 31.7% females were affected by the coronavirus [11]. Another reason of males being more knowledgeable about symptoms of COVID-19 could be that they spend more time on watching

news channels as compared to females [12]. It was reported that 31% male tv viewers watch news channels as compared to 22 % female viewers therefore, male viewers dominate the watching on news channels then female viewers. It was further recounted that in cable or satellite tv viewers, males dominated the viewership by 11 % as 29% males watch news channels whereas female viewers are only 18% of the sample.

In the current study, it was further found that though people have many misconceptions and ambiguities about the disease and its symptoms they were aware of the preventive strategies as 83 % reported that regularly cleaning and washing hands and avoiding to touch face, eyes and mouth are important. 78 % were in favor of wearing mask while 77% in social isolation. 71 % participants considered lockdown necessary while 68 % were in view of avoiding going outside unnecessarily. The main reason for having good awareness about the preventive strategies is likely to be news channels and media coverage. Govt is also trying to spread awareness about the disease and emphasizing to stay home and maintain social distance and 65% Pakistani reported satisfied with the performance of the govt [13]. One main area in which govt and health authorities need to pay attention is to educate people about the seriousness of the disease and its symptoms as still 62% Pakistanis believe that the threat of coronavirus has been exaggerated. This is largely based on some conspiracy theories that circulate through misinformation and digital fake news. There are several methods that Gov can employ to tackle this issue of misinformation. For example, Gov can encourage TV news hosts to bring more health case specialists onto their programs. Similarly, they can run their media campaigns in which correct information is given to the public. Govt health departments and hospitals can also be used for the same purpose.

The strength of the present study it's the first in its nature which made an effort to cover all the possible extents related to the awareness, knowledge of symptoms and prevention about COVID-

19 in the study population. These are the basic information which must be in the knowledge of general public. Nonetheless, the research had certain limitations as it was conducted on a small sample which was drawn using convenience sample which might diminish the generalizability of the findings.

References

- 1- Lu H, Stratton CW, Tang YW. Outbreak of pneumonia of unknown etiology in Wuhan China: the mystery and the miracle. J Med Virol. 2020;92. DOI:10.1002/jmv. 25678
- 2- World Health Organization. 2019-nCoV outbreak is an emergency of international concern. 2020. <http://www.euro.who.int/en/health-topics/emergencies/pages/news/new s/2020/01/2019-ncov-outbreak-is-an-emergency-of-international-concern> (access Feb 16, 2020).
- 3- Cucinotta D, Vanelli M. WHO Declares COVID-19 a Pandemic. Acta Bio Med [Internet]. 2020Mar.19 [cited 2020Apr.17];91(1):157-60. Available from: <https://www.mattioli1885journals.com/index.php/actabiomedica/article/view/9397>
- 4- [Internet] Reliefweb: Johns Hopki University. Coronavirus COVID-19 Global Cases by Johns Hopkins CSSE. <https://reliefweb.int/report/world/ coronavirus-covid-19-global-cases-johns-hopkins-csse>
- 5- Chen N, Zhou M, Dong X, Qu J, Gong F, Han Y, et al. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. Lancet. 2020; 395: 507-13
- 6- Zhong B-L, Luo W, Li H-M, Zhang Q-Q, Liu X-G, Li W-T, et al. Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: a quick online cross-sectional survey. International Journal of Biological Sciences. 2020;16(10):1745-52. Epub 2020/03/15

- 7- Yi Y, Lagniton PNP, Ye S, Li E, Xu RH. COVID-19: what has been learned and to be learned about the novel coronavirus disease. *Int J Biol Sci* 2020; 16(10):1753-1766.
doi:10.7150/ijbs.45134. Available from <http://www.ijbs.com/v16p1753.htm>
- 8- -Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet* (London, England). 2020; 395: 497-506
- 9- Govt. of Pakistan. Islamabad: Know about COVID-19. <http://covid.gov.pk/>, Accessed 17-04-2020.
- 10- Rizvi, N., S Khan, K. & Shaikh, B.T. Gender: shaping personality, lives and health of women in Pakistan. *BMC Women's Health* 14, 53 (2014). <https://doi.org/10.1186/1472-6874-14-53>.
- 11- Tunio, H. Twice as many men contracting coronavirus than women in Sindh, data reveals. *The Express Tribune* (newspaper on the internet). 2020 April 12 (cited April 17. 2020); Food: Available from <https://tribune.com.pk/story/2196441/1-twice-many-men-contracting-coronavirus-women-sindh-data-reveals/>
- 12- Gallup Pakistan. “Television audience viewership special press release”, January 2017, <http://gallup.com.pk/television-viewership-in-pakistan-an-average-tv-viewer-spends-two-hours-daily-watching-television/>
- 13- Gallup Pakistan. “Social, Healthcare special press release”, April 2020, <http://gallup.com.pk/wp-content/uploads/2020/04/10th-April-2020-English.pdf>).