Original Article

COVID-19 Pandemic: Knowledge, Practices and Barriers Among Patients Attending Gynae Outdoor

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Abstract

Objectives: To determine the knowledge about COVID-19 disease, practice towards its preventive measures, and barriers faced by the patients to adopt COVID-19 preventive measures.

Methodology: It was a descriptive study conducted at Sharif Medical and Dental College from August to September 2020. Data was collected on a structure proforma and analyzed using SPSS version 23.

Results: Total number of women were 398; their mean age was 27.75±5.16. Most of the participants have knowledge about the symptoms of COVID-19 disease, its mode of spread, and preventive measures however more than fifty percent (52.5%) of the participants were not aware of the fact that persons infected with COVID-19 who are asymptomatic can be a source of spreading infection to healthy individuals. Percentage of the participants who always practiced the preventive measures against COVID-19 was low. Level of awareness was significantly associated with age groups (p=0.01), occupation (0.00), education (0.00). However, level of practice revealed significant association with occupation (p=0.02), education (p=0.00), and monthly income (p=0.01) The major barriers in adopting preventive measures against COVID-19 disease were uncertainty about COVID-19 pandemic (15.8%), followed by social fear (14.7%), limited availability of ace mask and hand sanitizers in 14.6% and lack of awareness in 13.9%.

Conclusion: Significant number of women was not aware of the fact that persons infected with COVID-19 who are asymptomatic can be a source of spreading infection to healthy individuals. Percentage of the participants who always practiced the preventive measures against COVID-19 was low. Uncertainty about pandemic was a major barrier in adopting preventive measures.

Key Words: Barriers, COVID-19, Knowledge, practice, prevention

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Introduction

COVID-19 is an infectious disease erupted from Wuhan city of China, and spread globally in no time.[1] It is caused by a newly discovered virus that belongs to family of corona virus. This virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. However, transmission thorough aerosol, and contact with infected surfaces is also common.[1, 2]

Clinical presentation varies from asymptomatic infection to severe febrile and respiratory illness. Most people infected with the COVID-19 virus experience mild to moderate illness and recover with symptomatic treatment.[3] Immunocompromised people such as older people, those with organ transplant, on radiotherapy or chemotherapy, blood or bone cancer, with stem cell transplant, on immunosuppressive therapy have higher risk of infection, morbidity and mortality.[4] The best way to prevent and slow down its transmission is to be well aware about the symptoms and spread of this viral disease.[5] In Pakistan COVID-19 is spreading rapidly

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leading to 296149 confirmed cases and 6298 deaths till 31[1st] August 2020.[6]

COVID-19 pandemic has affected 216 countries of the world.[2] Transmission of disease is rapid from human to human and prevention is better as no definitive cure has been found till date. World Health Organization has stressed on recommended preventive measures.[7] So this study will be conducted to assess the awareness about symptomatology, spread and preventive measures of COVID-19 disease, practice of preventive measures, and the barriers faced by patients to adopt COVID-19 preventive measures. It will identify the knowledge gaps and addressing these gaps can improve their knowledge and practice. Addressing the barriers may be helpful to improve their compliance to adopt the preventive measures.

Methodology

The ethical approval of this descriptive study was obtained from Institutional Ethical Review Committee. It was conducted from August 2020 to September 2020.

All pregnant, postnatal women, and patients presenting with gynaecological problems in gynae outpatient department were included in the study after their consent. Pre-pubertal girls were excluded. An assumed proportion of 0.50 was used with acceptable difference of 0.05 and confidence level of 95%, the calculated sample size was 385. Non probability convenience sampling technique was used.

Online literature review was done regarding COVID-19 disease. As the study participants were from general population of Pakistan so “URDU” language was selected and a 15 item questionnaire was developed. Closed ended questions were phrased. The questionnaire was emailed to five experts via email and was handed over to four experts in the form of hard copy for content, and construct validation. Their responses were collected, analyzed and suggested modifications were in cooperated. Cognitive pretesting was done with study participants to ensure that the respondents interpret the items in the manner that the researcher intends. Pilot testing was done. Data was entered in SPSS 23 and the reliability of the scale was measured using Kuder Richardson test 20 for knowledge section and Cronbach alpha was applied for practice section.

Data was collected on a structured proforma comprising of four sections such that demographics, awareness about COVID-19 disease, practice of COVID-19 preventive measures, and barriers to adopt preventive measures. Demographics of study participants were noted like age, education, occupation, affected by COVID-19 disease either herself or family, and monthly family income. Section on awareness was comprised of nine questions regarding knowledge about symptoms of disease, its spread, and prevention. Study participants were asked to respond in “yes” or “no.” Section to assess the practice of the participants about COVID-19 preventive measures was based on six question. The study participants were asked whether they practiced those measures or not. The level of practice of study participants was assessed on Likert scale i.e. never, some time, almost always and always. All are closed ended questions based on the COVID-19 prevention recommendations by World Health Organization.

Reviews on content and construct of questionnaire were taken by nine experts. Their responses were collected, analyzed and suggested modifications were in-cooperated. The scores received from the experts on content relevance were entered on Microsoft Excel and Content Validity Index (CVI) of individual items and of scale was calculated that was S-CVI/Ave =1 and S-CVI/UA= 1. Cognitive pretesting was done with study participants to ensure that the respondents interpret the items in the manner that the researcher intends. Pilot testing was done. Data was entered in SPSS 23 and the reliability of the scale was measured i.e., 0.51 for knowledge component, and 0.90 for practice section of questionnaire.

SPSS 23 was used for data analysis. Quantitative data like age was analyzed using mean, and standard deviation. Qualitative variables like age groups, occupation, education status, and monthly income was calculated in percent. Similarly, response to questions about knowledge, practice, and barriers was analyzed using percent. Association of knowledge and practice with age, education, occupation, and monthly income was measured using Chi square test.

Results

Total number of women were 398; their mean age was 27.75±5.16 ranging from 17 to 55 years. Most of them were from age group of 21-30 years i.e., 309 (77.6%). Two hundred and 24 (73.9%) were pregnant while 104 (26.1%) were non pregnant. 26 (6.1%) were illiterate while the rest have obtained varying degree of education as shown in table I. Most of them were house wives 385(96.7%), and 245(61.6%) have monthly income of 21-50,000 Pakistani rupees as detailed in table I.

Table I: Demographics		
Demographics		**N (%)**
Age groups (years)	13-20	19(4.8)
	21-30	309(77.6)
	31-40	61(15.3)
	40-50	7(1.8)
	51-60	2(0.5)
	Total	**398(100)**
Pregnancy status	Pregnant	294(73.9)
	Non pregnant	104(26.1)
	Total	**398(100)**
Occupation	House-wives	385(96.7)
	Teacher	7(1.8)
	Others	6(1.5)
	Total	**398(100)**
Education	Illiterate	26(6.5)
	Primary	24(6.0)
	Middle	36(9.0)
	Matric	96(24.1)
	FA	93(23.4)
	Graduation	86(21.6)
	Masters	37(9.3)
	Total	**398(100)**
Monthly Income (PKR)	20,000	95(23.9)
	21-50,000	245(61.6)
	50,000-1Lac	54(13.6)
	>1 Lac	04(1)
	Total	**398(100)**

Most of the participants have knowledge about COVID-19 disease but a significant number was not aware of the fact that persons infected with COVID-19 who are asymptomatic can be a source of spreading infection to healthy individuals. Although the study population was practicing COVID-19 preventive measures however the however most of them were inconsistent as detailed in table II. Level of awareness was significantly associated with age groups (p=0.01), occupation (0.00), education (0.00). However, level of practice revealed significant association with occupation (p=0.02), education (p=0.00) and monthly income (p=0.01)

The major barriers in adopting preventive measures against COVID-19 disease were uncertainty about COVID-19 pandemic (15.8%), followed by social stigma (14.7%), limited availability of ace mask and hand sanitizers in 14.6% and lack of awareness in 13.9%. (Figure 1)

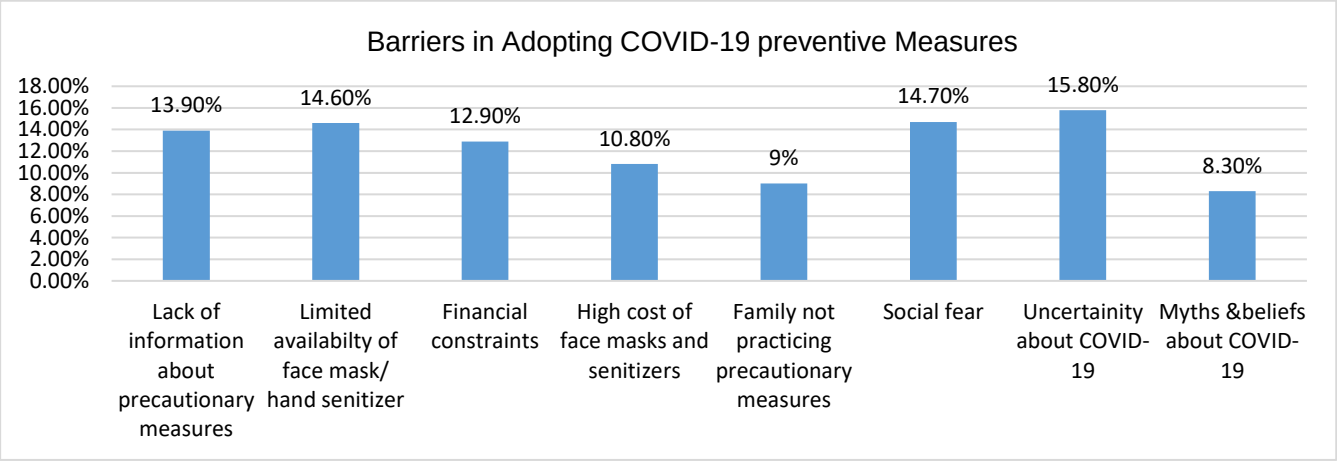
Discussion

World Health Organization declared COVID-19 as “Public Health Emergency of International Concern” in January 2020, and as “Pandemic” in March 2020.[8] As it is a global threat, WHO disseminated the information on different aspects of disease including its epidemiology, symptoms, transmission, prevention, treatment, COVID-19 related morbidity, and mortality.[9, 10] All the information was communicated in multiple language to facilitate the people all around the world. Pakistan Government, health sector, doctors’ community also communicated all the information in national, and local language for better understanding of the residents of

Table II: Knowledge and Practice about COVID-19 disease					
	A. Knowledge about COVID-19 disease			Yes N (%)	No N (%)
1	Does corona epidemic spreads by a virus?			369(92.7)	29(7.3)
2	Does corona epidemic spreads by coughing, sneezing, and living near an affected individual?			394(99)	049(1)
3	Are you aware that corona virus spreads by touching the used things of an infected individual by a healthy individual?			377(94.7)	21(5.3)
4	Is fever, cough, headache, body aches and difficulty in breathing are common symptoms of corona virus?			373(93.7)	25(6.3)
5	Can a COVID infected symptom free individual be a source of spread of disease?			189(47.5)	209(52.5)
6	Are you aware that frequent hand washing with soap, and face mask use is necessary for prevention of disease spread?			384(96.5)	14(3.5)
7	Are you aware that it’s necessary to maintain a distance of 2 meter from others to prevent spread of disease?			329(82.7)	69(17.3)
8	Is it necessary to properly clean in contact surfaces and household objects regularly?			385(97.7)	13(3.3)
9	Are you aware of the term being quarantine (living in a separate place in home)?			328(82.4)	70(17.6)
	B. Practice of preventive measures	**Never N (%)**	**Sometimes N (%)**	**Often N (%)**	**Always N (%)**
1	Do you use face mask while going outside of home/ in crowd?	6(1.5)	106(26.6)	162(40.7)	124(31.2)
2	Do you wash your hands frequently at least for 20 seconds?	0 (0)	110(27.6)	207(52)	81(20.4)
3	Do you discard your used tissue papers in dust bin with lid?	14(3.5)	147(36.9)	164(41.2)	73(18.3)
4	Do you cover your mouth and nose with internal side of your elbow while coughing or sneezing?	9(2.3)	1171(43)	139(34.9)	79(19.8)
5	Do you maintain at least 2 meter distance while meeting people or in crowded places?	48(12.1)	137(34.4)	159(39.9)	54(13.9)
6	Do you avoid unnecessary going out from home?	11(2.8)	159(39.9)	157(39.4)	71(17.8)

Table III: Association of knowledge and practice with study variables

		Level of awareness			Chi-square	Level of Practice			Chi-square
		Poor	Average	Good		Poor	Average	Good	
Age groups (years)	13-20	5	5	9	**0.012**	2	7	10	0.15
	21-30	81	110	118		69	92	148	
	31-40	22	19	20		21	20	20	
	40-50	06	01	0		5	2	0	
	51-60	2	0	0		1	1	0	
Occupation	House-wives	118	136	134	**0.00**	98	122	165	**0.02**
	Teacher	0	0	7		0	0	7	
	Others	0	0	6		0	0	6	
Education	Illiterate	23	3	0	**0.00**	19	4	3	**0.00**
	Primary	14	9	1		15	7	2	
	Middle	17	14	5		14	11	11	
	Matric	29	51	16		25	38	33	
	FA	15	38	40		16	30	47	
	Graduation	13	16	57		5	21	60	
	Masters	5	4	28		4	11	22	
Monthly Income (PKR)	20,000	35	32	28	**0.09**	34	31	30	**0.01**
	21-50,000	68	78	99		57	72	116	
	50,000-1Lac	11	25	8		7	18	29	
	>1 Lac	2	0	2		0	1	3	



Pakistan.[6] Electronic, print and social media also played an important role in spread of information during this period.

In current study most of the participants have knowledge about the symptoms of COVID-19 disease, its mode of spread, and preventive measures however more than fifty percent (52.5%) of the participants were not aware of the fact that persons infected with COVID-19 who are asymptomatic can be a source of spreading infection to healthy individuals. The results were comparable to the study conducted by Hayat K.[11] Similarly according to a study conducted in Cameroon; 94.3% have information about disease transmission.[12]

A study conducted in china revealed that majority of study population was aware of mode of disease transmission and its prevention.[13] Our study identified lack of knowledge in study participants about the "important aspect of disease transmission by asymptomatic persons". So, it is crucial to reinforce on this aspect and disseminate more information to create public awareness that COVID-19 affected people may not show symptoms but can spread disease to others in close contact with them. Mass communication can play a vital role to spread the knowledge about the lacking aspects of disease transmission for its better prevention.

Most of the study participants had good or average COVID-19 related knowledge i.e. 64.8%, 30.5% respectively. Level of awareness was significantly associated with age groups (p=0.01), occupation (0.00), education (0.00). Knowledge about COVID-19 pandemic was better in young age group 21-30 years, in employed versus housewives, and those who were educated as detailed in table III. However monthly

income does not show any significant association with level of awareness.

Similarly, a study conducted by Zhong BL, in China revealed significant association with age, gender, marital status, education, and employment status.[13] A survey conducted by Hayat K revealed that the participants aged 16-29 years had highest knowledge score as compare to other age groups (p=<0.001). Similarly, participants who were employed had significantly better knowledge score than unemployed i.e., p=0.01.[11] This may be because the young, educated, and employed population has more exposure to the different information sources in this era of technology.

Conclusion

Although overall awareness about the COVID-19 disease is satisfactory however significant number of women was not aware of the fact that persons infected with COVID-19 who are asymptomatic can be a source of spreading infection to healthy individuals. Percentage of the participants who always practiced the preventive measures against COVID-19 was low. Uncertainty about pandemic was a major barrier in adopting preventive measures.

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