# GENERAL PERCEPTION ABOUT COVID-19 IN PAKISTANI FEMALES VISITING THE GYNAECOLOGY DEPARTMENT OF A TERTIARY CARE HOSPITAL: A CROSS-SECTIONAL SURVEY

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## ABSTRACT

***Objective:*** To gain insight about the perception of female subjects on COVID-19.
***Study Design:*** Cross-sectional study.
***Place and Duration of Study:*** Gynaecology department of Pak Emirates Military Hospital, Rawalpindi, from Mar to Jun 2020.
***Methodology:*** The data obtained from a questionnaire filled by a total of 205 female participants with mean age of 31.84 ±_8.52 years, visiting the Gynaecology outdoor patient department was used. The data was analyzed and descriptive analysis was made in percentages.
***Results:*** Electronic media (TV/Radio) was the main source of information about COVID-19 for 170 (83%) of the participants. Most of the participants identified that the main symptoms of COVID were flu 115 (56%), cough 104 (51%) and fever 109 (53%). About the protective and hygienic measures, 125 (61%) chose hand washing for twenty seconds while 116 (57%) of the participants chose wearing masks and 87 (42%) opted for maintaining the distance from an infected individual. One hundred (49%) of the total participants believed that the transmission of the virus to infants takes place via breast milk of nursing females while 147 (72%) of the females responded negatively for the breastfeeding to be responsible for the transmission of the virus. One hundred and thirty females (73%) believed that this disease was completely curable while 55 (27%) of females responded that a complete cure was not possible.
***Conclusion:*** Most of the females have generally satisfactory information about the signs and symptoms of the novel virus and the commonly employed precautions against the disease.

**Keywords:** COVID-19, Precautions, Perception, Questionnaire.



## INTRODUCTION

Coronavirus induced disease (COVID)-19 is caused by severe acute respiratory syndrome-coronavirus 2 (SARS-CoV-2). The disease was first emerged in Wuhan province of China in December 2019 and was treated as pneumonia with unclear etiology. Later, the respiratory samples were examined by the PRC (People's Republic of China) Centre for Disease Control (CDC) and it was found that the causative agent is a novel coronavirus. This was named as the Novel Coronavirus Pneumonia (NCP). This virus attacks the human respiratory system and hijacks the body cells. This novel virus primarily infects the cells lining the airways and lungs[1]. At first, the virus was named as 2019-nCoV by Chinese researchers. Later, the International Committee on Taxonomy of Virus named the novel corona-virus as Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2)[2]. On February 11, 2020, this Pneumonia was named Coronavirus disease-19 (COVID-19) by the World Health Organization (WHO) and it was declared as a global health emergency[3]. By 11th March 2020, 113 countries in totalwere observed to be affected by the virus with 118,162 people infected and 4290 deaths (mortality rate 3.63%)[4]. According to the World Health Organization, a total of 7,805,148 confirmed cases were presented globally with 431,192 mortalities. Though this is the third Coronavirus outbreak, previous virus outbreaks include Severe Acute Respiratory Syndrome

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Coronavirus (SARS-CoV) and the Middle East Respiratory Syndrome Coronavirus (MERS-CoV) outbreak[5]. After spreading the virus in China, this novel virus was spread to many other parts of the world including America, Australia, Europe and Asia including Pakistan.

The neighboring countries of Pakistan were affected by the virus including China which was the epicenter of the coronavirus outbreak. In Pakistan, the first case of COVID-19 was confirmed by the Ministry of Health, the Government of Pakistan on February 26, 2020, in Karachi, Sindh province. On the same day, a case was reported in Islamabad by the Health Ministry of Pakistan. In both cases, there was observed a travel history from Iran[6]. Pakistan tried to prevent the rapid spread of this virus by employing preventive measures including setting up specialized testing laboratories, quarantine centers, campaigns for spreading awareness among the masses and lockdown. Hospitals were designated for the treatment of COVID-19 patients and SOPs (standard operating procedures) were distributed to be implemented on strict compliance.

Isolation wards were built all over the country to cope with the pandemic. Similarly, quarantine facilities for subjects who might have been exposed to the infection or who might spread the virus were also designated[7].

The COVID-19 symptoms seem to appear after 2 to 14 days of exposure to the virus. After 14-41 days the patient might succumb to death depending upon the age and the state of the immune system. Older aged adults with certain comorbid conditions appear to have a higher risk of developing complications. The time duration for the onset and progression of the disease is relatively shorter for such individuals. The most commonly encountered symptoms are fever and chills, cough, sore throat and fatigue, while other symptoms include sputum production, headache, haemoptysis, diarrhoea, dyspnoea, and lymphopenia. These symptoms have been noted for beta coronavirus before but what makes COVID-19 unique is targeting lower respiratory tract and involvement of gastrointestinal tract distress. A very low number of SARS and MERS coronavirus patients have experienced such states[8].

The COVID-19 affected individuals with comorbidities are more at risk of mortalities, particularly with the cardiac complications. It has been proposed that individuals with myocardial inflammation, getting an infection caused by the virus may result in cardiac injury[9]. There is no specific treatment for COVID-19 yet and no vaccine is available. Some of the COVID-19 recovered individuals develop neutralizing antibodies in the blood which may immobilize the virus particles. The first-line option is self-care. The treatment is typically based on the symptoms. Throughout the history of viral epidemics and pandemics, pregnant females have suffered worse outcomes than non-pregnant individuals. Since there is increased oxygen consumption and decreased functional residual capacity during pregnancy[10], COVID-19 may implicate greater risk inpregnant women compared to the non-pregnant adult population. Furthermore, pregnancy is an immune-suppressed condition, and a compromised immune system renders women more susceptible to complicated infections. Finally, SARS-CoV-2 might be transmitted vertically from mother to fetus and cause clinically significant infection. The objective of this study was to assess the awareness among females visiting the gynaecology department of a tertiary care health setting, about the COVID-19 infection, and the knowledge about the preventive hygienic measures against this novel virus.

## METHODOLOGY

This questionnaire-based cross-sectional study was carried out on female individuals visiting Gynaecology OPD (outdoor patient department) Pak Emirates Military Hospital (PEMH), Rawalpindi, to investigate the COVID-19 related knowledge. After the formal approval of institutional ethical review committee, ER No. A/28/EC/175/2020 Dated 24 July 2020, the study was conducted for duration of 4 months from March to June 2020. The study was carried

out considering the principles of the Declaration of Helsinki (revised version, 2013). Inclusion criteria of the study were the adult Pakistani females with any ethnicity visiting the Gynaecology department of the hospital. The study excluded the subjects with any persisting emotional or behavioral issues. A questionnaire was designed and distributed among females (n=205) with mean age of 31.84 ± 8.52 years. Informed consent of the included study subjects was taken before the filling of the questionnaire. The questionnaire was explained to them and the purpose of the study was described to them as well. The confidentiality of data in sharing personal information was maintained.

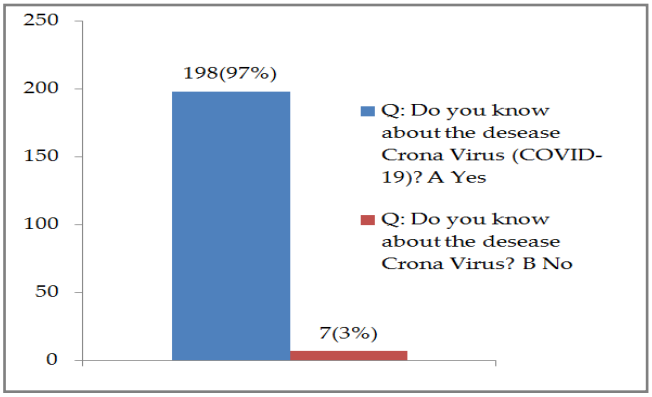


**Figure-1: An illustration of general awareness of COVID-19 among females.**

After getting the questionnaires filled, their responses were analyzed and data were interpreted. The questionnaire was divided into four sections including; demographic comprising age and education status, information-based questions concerning COVID-19, questions about their awareness regarding the spread of disease and their general behavior towards this global pandemic. All the data were analyzed and the descriptive analysis was made in percentages. The information was expressed in the form of a bar graph, pie chart and table.

## RESULTS

A total of 205 female participants filled the questionnaires after giving their consent to be a part of the study. The included study subjects had mean age of 31.84 ± 8.52 years. The responses of the participants regarding their awareness of novel coronavirus have been illustrated in the form of a table (table). About 97% of the total participants of the study showed their knowledge about the etiology of this global pandemic (fig-1). The response regarding the source of information on the COVID-19 exhibited the highest frequency (83%) of the use of electronic media (TV/Radio) as a means of a quick source of information. The internet as an electronic mean revealed relatively a higher frequency (21%) in terms of knowledge of the information related to COVID-19 (fig-2).

**Table: Recent knowledge of awareness concerning COVID-19 in females.**

| Questions (Correct Response) | Percentage of Participants with the Correct Response |
|---|---|
| Symptoms of COVID-19 appear after 14 days | 140 (68%) |
| This viral disease is spreading worldwide | 123 (60%) |
| Physical contact with the patient is the rout of virus transmission | 98 (48%) |
| COVID-19 can cause fatalities | 68 (33%) |
| Some infected individuals don't show up certain symptoms | 82 (40%) |

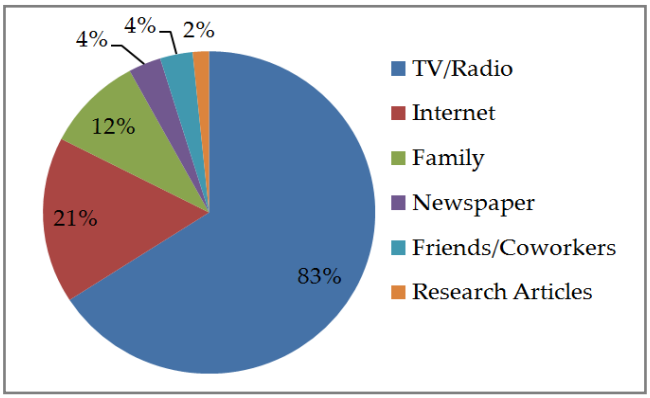


**Figure-2: A representation of responses by participants against the source of information.**

Regarding the appearance of the symptoms in the infected individuals, 115 (56%) of the participants responded for flu, 104 (51%) for cough, 109 (53%) for fever, 48 (23%) for body aches, 16 (8%) for shivering, 44 (21%) for sore

throat while 23 (11%) of the participants responded that this disease results in the loss of sense of taste and smell. About the protective and hygiene measures, 87 (42%) of the participants opted for maintaining a distance to an infected individual, 125 (61%) chose to wash hands for twenty seconds, 88 (43%) chose social distancing for preventing from virus, 74 (36%) of them responded to cover up face while coughing or sneezing while 116 (57%) of the study participants responded to wear a mask as a preventive measure against the spread of the virus and getting infected. One hundred (49%) of the study participants responded that infected nursing mothers may transmit the virus from breast milk into infants, 82 (40%) of the females responded negatively about the transmission through breast milk while 23 (11%) of the females did not know about the transmission through breast milk to infants. Responding to a question whether an infected nursing mother with severe symptoms can breastfeed her infant; 48 (23%) of participants responded as "yes", 147 (72%) of the participants responded as "no" while 10 (5%) of the participants did not give any response. One hundred and fifty (73%) of the females hoped to have this disease completely cured while 55 (27%) of the females responded negatively about the complete cure.

## DISCUSSION

COVID-19 is a severe acute respiratory syndrome. This global pandemic has greatly affected the world. It was first appeared as chronic pneumonia in the Wuhan province of China[11]. The COVID-19 patients from Wuhan with earlier onset were younger, more probably to be males and reported to be exposed to the Huanan Seafood Wholesale Market[12]. The World Health Organization declared it a global health emergency after the sudden outbreak of this novel coronavirus. The transmission rate of this novel virus (SARS-CoV-2) is comparatively higher than SARs CoV[13].

The study participants' feedbacks from the questionnaire reveal that the majority of the females have a general perception of the disease. Following the response of participants concerning the common signs and symptoms, most of the females were familiar with flu, fever, cough, body aches, sore throat and loss of sense of smell and taste respectively. The majority of the participants of this study exhibited hand washing for twenty seconds and wearing a face mask as the first line of the self hygienic measure. Generally, most of the participants of this study demonstrated a positive perception of the prevention and control of this pandemic.

The results from a Jordan-based study carried out in dentists exhibited a total of 133 (36.1%) participants knew the incubation period of the virus. In our study findings, 140 (68%) of the study participants had the knowledge of the incubation period (14 days) for the COVID-19[14]. The findings of another Jordanian study conducted on pharmacists regarding media's effect on the COVID-19 awareness, revealed social media as the highest frequency (58.2%) source of information on COVID-19 while our study findings report electronic media (TV/Radio) as the highest (83%) followed source of awareness on the pandemic[15]. Contrary to our findings, the results from a Turkish study demonstrated (64.4%) of the participants never heard about COVID-19 and most study participants (60.1%) were reported to be unaware of the causes of this global virus[16]. In accordance with our study findings, results of a study from Saudi Arabia have shown hand washing as the most practicing (84%, 51%, and 34% respectively in all groups) preventive measures against the spread of the virus. In our study, 61% of the participants chose hand washing as a protective measure against the virus[17].

The health policymakers are highly required to pay attention to effective risk communication and awareness for this pandemic control for the masses. The findings of this study revealed a moderate level of perception about preventive measures but a low-risk perception. The findings from a local study demonstrated that study subjects were uncertain about the prevention of the newly discovered virus[18]. The higher level of

positive responses on the general perception of the COVID-19 revealed that information shared by electronic media has a higher impact on the public. However, our study showed that the participants had a piece of moderate knowledge about the transmission mode of the novel coronavirus.

## CONCLUSION

It is quite noteworthy that the general information and the responses towards COVID-19 are evoked to prevent the threat of this disease. The study demonstrates that most of the females have general information about the virus. The females' level of knowledge regarding the novel coronavirus is satisfactory. The circulating information spread by the electronic media has a significant influence on the COVID-19 general information. However, there is a need for regular educational mediation on infection control measures for the general public. Moreover, the lack of potent pharmaceutical interventions for SARS-CoV-2 upheavals the possibility of the virus recurrence. Therefore, the general public is required to practice the protective measures with strict compliance against the virus spread.

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## CONFLICT OF INTEREST

This study has no conflict of interest to be declared by any author.

## REFERENCES

1. Sahin AR, Erdogan A, Agaoglu PM, Dineri Y, Cakirci AY, Senel ME, et al. 2019 novel coronavirus (COVID-19) outbreak: a review of the current literature. Eurasian J Med Oncol 2020; 4(1): 1-7.
2. Zu ZY, Jiang MD, Xu PP, Chen W, Ni QQ, Lu GM, et al. Coronavirus disease 2019 (COVID-19): a perspective from China. Radiol 2020; 296(4): 15-25.
3. Rodriguez-Morales AJ, Bonilla-Aldana DK, Tiwari R, Sah R, Rabaan AA, Dhama KJJPAM. COVID-19, an emerging coronavirus infection: current scenario and recent developments-an overview. J Pur Appl Microbiol 2020; 14(1): 5-12.
4. Organization WWH. Novel coronavirus (COVID-19) situation. 2020. Available from: https://covid19.who.int/
5. Zhou P, Yang XL, Wang XG, Hu B, Zhang L, Zhang W, et al. A pneumonia outbreak associated with a new coronavirus of probable bat origin. Nature 2020; 579(7798): 270-73.
6. Saqlain M, Munir MM, ur Rehman S, Gulzar A, Naz S, Ahmed Z, et al. Knowledge, attitude, practice and perceived barriers among healthcare professionals regarding COVID-19: A Cross-sectional survey from Pakistan. J Hos Infect 2020; 105(3): 419-23.
7. Waris A, Khan AU, Ali M, Ali A, Baset AJNM, Infections N. COVID-19 outbreak: current scenario of Pakistan. New Microbes and New Infect 2020; 35(C): 100681.
8. Assiri A, Al-Tawfiq JA, Al-Rabeeah AA, Al-Rabiah FA, Al-Hajjar S, Al-Barrak A, et al. Epidemiological, demographic, and clinical characteristics of 47 cases of Middle East respiratory syndrome coronavirus disease from Saudi Arabia: a descriptive study. Lancet infect Dis 2013; 13(9): 752-61.
9. Zhu H, Rhee JW, Cheng P, Waliany S, Chang A, Witteles RM, et al. Cardiovascular complications in patients with COVID-19: consequences of viral toxicities and host immune response. Curr Cardiol Rep 2020; 22(5): 1-9.
10. Hegewald MJ, Crapo ROJCicm. Respiratory physiology in pregnancy. Clin Chest Med 2011; 32(1): 1-13.
11. Lai CC, Shih TP, Ko WC, Tang HJ, Hsueh PR. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and corona virus disease-2019 (COVID-19): the epidemic and the challenges. Int J Antimicrob Agents 2020; 55(3): 105924.
12. Li Q, Guan X, Wu P, Wang X, Zhou L, Tong Y, et al. Early transmission dynamics in Wuhan, China, of novel coronavirus–infected pneumonia. N Engl J Med 2020; 382(13): 1199-207.
13. Shereen MA, Khan S, Kazmi A, Bashir N, Siddique R. COVID-19 infection: Origin, transmission, and characteristics of human coronaviruses. J Adv Res 2020; 24(1): 91-98.
14. Khader Y, Al Nsour M, Al-Batayneh OB, Saadeh R, Bashier H, Alfaqih M, et al. Dentists' awareness, perception, and attitude regarding COVID-19 and infection control: cross-sectional study among Jordanian dentists. JMed Int Res 2020; 6(2): e18798.
15. Karasneh R, Al-Azzam S, Muflih S, Soudah O, Hawamdeh S, Khader Y. Media's effect on shaping knowledge, awareness risk perceptions and communication practices of pandemic COVID-19 among pharmacists. Res Social Adm Pharm 2020; 10(1): 1016.
16. Yıldırım M, Güler A. COVID-19 severity, self-efficacy, knowledge, preventive behaviors, and mental health in Turkey. Death Stud 2020: 1-8.
17. Quadri MF, Jafer MA, Alqahtani AS, Odabi NI, Daghriri AA, Tadakamadla SK. Novel corona virus disease (COVID-19) awareness among the dental interns, dental auxiliaries and dental specialists in Saudi Arabia: A nationwide study. J Infect Public Heal 2020; 13(6): 856-64.
18. Khan S, Khan M, Maqsood K, Hussain T, Zeeshan M. Is Pakistan prepared for the COVID-19 epidemic? A questionnaire based survey. J Med Virol 2020; 92(7): 824-32.