Awareness, Practice, Knowledge and Attitude toward the COVID-19 among Antenatal Patients at Tertiary Care Hospital

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Authors' contributions

This work was carried out in collaboration among all authors. Author FP designed the study, wrote the protocol and wrote the first draft of the manuscript. Authors SA and SAM managed the analyses of the study and contribution in manuscript writing. Author HA managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Objective: To determine the awareness, practice, knowledge and attitude toward the Covid 19 among antenatal patients at tertiary care Hospital.

Methodology: This was a cross sectional survey which was conducted at Gynae and obstetrics department at Liaquat University Hospital Hyderabad. Study duration was six months from March 2020 to August 2020. All the pregnant women visited antenatal clinic age 18 to 40 years and either of parity were included. All the pregnant females were interviewed by using a questioner regarding awareness, attitude and practice toward the Covid19 after taking informed consent. All the data was recorded via study proforma. Data was analyzed by using SPSS version 20.

Results: Total 173 pregnant women were interview regarding COVID-19, their mean age was 29.34±13.12 years. Most of the women were presented with age between 18 to 37 years. 70.5% were multigravida and majority of women were uneducated. Mostly women 75.1% had heard regarding. 72.8% women said, they should stay at home and 25.4% said should wear the face mask, while 38.7% said the women should inform the health care provider in advance before visit

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to Hospital if developed any symptom. Most of the women had good knowledge and attitude, while preventive practice was found to be unsatisfactory.

**Conclusion:** knowledge and awareness were found to adequate; while preventive practice has been observed unsatisfactory among pregnant women during antenatal clinic. Clinicians should provide appropriate counseling to reassure and elucidate doubts of pregnancy females regarding COVID-19 during antenatal visits.

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**Keywords:** COVID-19; awareness; pregnancy.

**1. INTRODUCTION**

The unique Coronavirus 2019 (COVID-19), a newly emergent respiratory disease, has become an international issue and a pandemic without any treatment available.[1] It is a recently discovered respiratory condition caused by a single-stranded new RNA virus "Corona virus".[1] The COVID-19 outbreak is putting enormous burden on every nation's healthcare systems, producing both economic and social problems [2]. COVID-19 may increase the risk of severe illness in expectant mothers, as well as may lead to lower neonatal outcome. The psychological consequences of the outbreak may be more perplexing than the clinical ones.[3] Obstetricians handling expectant mothers who are diagnosed with or suspected for COVID-19, face logistic challenges as well as conundrums during pregnancy.[3] The ongoing COVID-19 outbreak has afflicted nearly 17.3 million individuals globally, with about 674000 deaths.[4] Although pregnancy is among the most vulnerable times for individuals suspected/detected with COVID-19 infection, there is currently little information regarding the clinical features of expectant mothers who suffer from COVID-19.[4] Although higher maternal age, presence of comorbidities, and high body mass index have been considered to be the risk factors of severe COVID-19 development among expectant mothers.[5] Because of the physiological modifications in the cardiopulmonary and immunological systems that occur during pregnancy, women are predisposed to respiratory viral infection.[2,6,7] A greater level of stress and anxiety related symptoms is another factor reported as a high level of fear of COVID-19 infection among the pregnant population, as most of women were worried about their health as well as the health of their newborn babies.[9] Some of the stress inducing factors that affect women in pregnancy include inadequate resources, poor employment conditions, the stress of family and household responsibilities, challenges in intimate relationships, and pregnancy complications.[8,9] To prevent the virus from transmitting to family members, expectant mothers and their family members must be instructed about the basic measures of infection prevention and control (IPC), personal hygiene, and the way to care for the individual suspected of carrying COVID-19 infection, as carefully as possible.[2,10,11] As most of the pregnant women were found with poor knowledge and inappropriate practice.[12] However, this study has been conducted to determine the awareness, practice, knowledge and attitude among antenatal patients towards the Covid 19 at tertiary care Hospital.

**2. MATERIALS AND METHODS**

This was a cross sectional survey which was conducted at Gynae and obstetrics department at Liaquat University Hospital Hyderabad. Study duration was six months from March 2020 to August 2020. All the pregnant women visited antenatal clinic age 18 to 40 years and either of parity were included. All the women those were not willing to participate in the study were excluded. All the pregnant females were interviewed during antenatal clinic regarding awareness, attitude and practice toward the Covid19 after taking informed consent. A questioner was adopted form previously recent published studied [5,13,14]. All the data was recorded via study proforma. Data was analyzed by using SPSS version 20.

**3. RESULTS**

Total 173 pregnant women were interview regarding COVID-19. Mean age of the women was 29.34±13.12 years. Out of all 70.5% were multigravida and majority of women were uneducated and low level of educations respectively. Out of all 71.1% women were from rural areas and mostly were housewives as shown in Table.1.

Mostly women 95.1% had heard regarding. Fig.1.

Most of the women 86.1% were aware regarding fever as a symptom, 16.2% replied that
headache is a symptom, 49.1% women said runny nose is the symptom, 51.4% said cough and 53.8% said breathing difficulty are the symptoms. 72.8% women said, they should stay at home and 25.4% said should wear the face mask, while 38.7% said the women should inform the health care provider in advance before visit to Hospital if developed any symptom.

Women adopted preventive measures, responses to attitudinal statements regarding COVID-19 and practice regarding COVID-19 are presented in Table 2.

4. DISCUSSION

COVID-19, a novel viral infection, is now being studied by health researchers to see how it affects expectant mothers and their new born babies. In this study most of the women were presented with age between 28 to 37 years. In this study mean age of the women was 29.34±13.12 years. On other hand Degu A et al, [1] reported that the mean age of study participants was 27.19±4.72 years. Ding W et al, [15] also reported that the mean maternal age was 29.1 ± 4.0 years. In this study 70.5% were multigravida and majority of women were uneducated. However, in the study of Maharlouei N et al [5] reported that 22% were below high school diploma, 36.9% had high school diploma and 41.1% had university degree. In this study mostly women 95.1% had heard regarding COVID-19. Similarly, Degu A et al, [1] reported that the all of the 399 (100%) study participants had never heard regarding COVID-19. Adhikari SP et al, [16] also reported that nearly all of the study subjects (96.6%) had heard regarding COVID-19. In this study, there was a satisfactory knowledge and positive attitude among the study participants, but unfortunately there was a big ignorance of preventive practice among these women and this may because of low level of education in our rural communities because in this study mostly women were from rural areas. On other hand Aboma D et al, [17] reported that the 63.1% of the visitors were found to have a high knowledge, in terms of controlling COVID-19, most of study respondents felt self-efficacious 170(68.8%). However, 207(83.3%) of respondents believed COVID-19 pandemic to be a stigmatized infection. Maharlouei N et al, [5] reported that frequently washing hands and avoiding to shake hands (73.7% & 53.0% respectively) were the most common practices. The results of this study indicated that the overall knowledge regarding COVID-19 was poor in less than 9% of pregnant women, although about 70% of the cases achieved acceptable knowledge score. Like knowledge regarding symptoms of COVID-19 in participants of this study, the Aboma D et al, [17] reported that one hundred ninety-eight (83.0%) of pregnant mothers visiting the centre were aware regarding major clinical symptoms such as fatigue, fever, myalgia, and dry cough and other symptoms (stuffy nose, sneezing, and runny nose) that distinguishes COVID-19 from the flu or common cold were reported by 42.7 % of the study respondents. In the study of Kamal D et al, [14] observed that the most of the pregnant females were knowledgeable regarding COVID-19 and having good practice and positive attitude. In this study there was no proper knowledge regarding COVID-19 but mostly patients heard regarding it that it is very harmful to human health, we observed that the education in the common population is very important for the management and prevention of these type

| Variables            | Frequency | %   |
|----------------------|-----------|-----|
| **Parity**           |           |     |
| Primigravida         | 51        | 29.5|
| Multigravida         | 122       | 70.5|
| **Educational level**|           |     |
| Illiterate           | 79        | 45.7|
| primary              | 73        | 42.2|
| secondary            | 19        | 11.0|
| Graduation           | 02        | 01.2|
| **Residence**        |           |     |
| Urban                | 50        | 28.9|
| Rural                | 123       | 71.1|
| **Occupation**       |           |     |
| Housewife            | 168       | 97.1|
| Employed             | 04        | 02.3|
| Own business         | 01        | 0.6|
| Age (mean±SD)        | 29.34±13.12 years |     |
Table 2. Knowledge regarding symptoms and practice (n=173)

| Questions                                      | Variables | Frequency | %  |
|------------------------------------------------|-----------|-----------|----|
| What are the symptoms of COVID-19 infection?   | Fever     | Yes       | 149| 86.1|
|                                                 |           | No        | 24 | 13.9|
|                                                 | Headache  | Yes       | 28 | 16.2|
|                                                 |           | No        | 145| 83.8|
|                                                 | Runny nose| Yes       | 88 | 50.9|
|                                                 |           | No        | 85 | 49.1|
|                                                 | Cough     | Yes       | 84 | 48.6|
|                                                 |           | No        | 89 | 51.4|
|                                                 | Breathing difficulty | Yes | 80 | 46.2|
| What will you do when you have the above symptoms? | Stay home | Yes | 126 | 72.8|
|                                                 |           | No        | 47 | 27.2|
|                                                 | Wear face mask | Yes | 44 | 25.4|
|                                                 |           | No        | 129| 74.6|
|                                                 | Inform the health care provider in advance before visit to Hospital | Yes | 67 | 38.7|
|                                                 |           | No        | 106| 61.3|

Table 3. Awareness regarding preventive measures, attitude and practice n=173

| Questions                                                   | Frequency | %  |
|-------------------------------------------------------------|-----------|----|
| **Preventive measures**                                     |           |    |
| Do you believe that not touching your nose, eyes, and face with unwashed hands can protect you from COVID-19? | Yes       | 123| 71.1|
|                                                             | No        | 50 | 28.9|
| Do you believe that wearing a mask will protect you against COVID-19? | Yes       | 117| 67.6|
|                                                             | No        | 56 | 32.4|
| Do you believe that avoiding embracing others protects you against COVID-19? | Yes       | 125| 72.3|
|                                                             | No        | 48 | 27.7|
| Do you believe that drinking a large amount of water will keep you safe from COVID-19? | Yes       | 133| 76.9|
|                                                             | No        | 40 | 23.1|
| Do you believe that keeping a social distance will protect you against COVID-19? | Yes       | 127| 73.4|
|                                                             | No        | 46 | 26.6|
| Do you believe that washing hand frequently can protect you against COVID-19? | Yes       | 149| 86.1|
|                                                             | No        | 24 | 13.9|
| It is necessary for me to maintain a social distancing.     | Yes       | 162| 93.6|
|                                                             | No        | 11 | 6.4|
| Questions                                                                 | Frequency | %   |
|---------------------------------------------------------------------------|-----------|-----|
| **Preventive measures**                                                   |           |     |
| Frequently hand washing is essential to protect myself from COVID-19      | Yes       | 148 | 85.5 |
|                                                                           | No        | 25  | 14.5 |
| We should stay home during sickness, unless getting the medical care     | Yes       | 137 | 79.2 |
|                                                                           | No        | 36  | 20.8 |
| COVID-19 will ultimately be successfully prevented                        | Yes       | 118 | 69.2 |
|                                                                           | No        | 55  | 31.8 |
| Pakistan's strict precautionary measures against COVID-19 could help the country win the war against COVID-19 | Yes       | 128 | 74.0 |
|                                                                           | No        | 45  | 26.0 |
| COVID-19 will not spread if the precautions enforced by Ministry of Health are followed | Yes       | 149 | 84.1 |
|                                                                           | No        | 24  | 13.9 |
| **Practice related to COVID-19**                                          |           |     |
| Have you lately attended a social gathering with a large group of people?  | Yes       | 101 | 58.4 |
|                                                                           | No        | 72  | 41.6 |
| Have you lately visited any crowded place?                                | Yes       | 106 | 61.3 |
|                                                                           | No        | 67  | 38.7 |
| Have you been avoiding cultural customs like shaking hands recently?     | Yes       | 90  | 52.0 |
|                                                                           | No        | 83  | 48.0 |
| Have you been utilizing social distancing strategies?                     | Yes       | 94  | 54.3 |
|                                                                           | No        | 79  | 45.7 |
| Have you recently been washing your hands with water and soap for minimum 40 seconds, particularly after visiting a public place or after sneezing, coughing, or blowing nose? | Yes     | 133 | 76.9 |
|                                                                           | No        | 40  | 23.1 |
Fig. 1. Frequency of awareness among pregnant women regarding COVID-19 (n=173)

5. CONCLUSION

Knowledge and awareness were found to be adequate; while preventive practice has been observed unsatisfactory among pregnant women during antenatal clinic. There was a big ignorance among the women and few women were in stress regarding their babies. Clinicians should provide appropriate counseling to reassure and elucidate doubts of pregnancy females regarding COVID-19 during antenatal visits.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author.

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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