

ORIGINAL ARTICLE

Knowledge, Attitude and Practices of Antenatal Women Regarding Personal Preventive Measures for COVID-19 Infection

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ABSTRACT

Objective: To identify level of knowledge about disease, attitude and behaviors in antenatal women contributing to ongoing COVID-19 pandemic that is still on the rise.

Study Design: Cross-sectional descriptive study

Place and Duration of Study: Department of Obstetrics & Gynaecology, Avicenna Hospital Lahore from 5th November 2020 to 4th February 2021.

Methodology: Two hundred pregnant women who visiting the OPD of the hospital were enrolled. A pre-validated questionnaire was used to assess KAP towards COVID-19.

Results: More than 70% were familiar with COVID-19 infection; most common source of information was news channels (76.5%). Large proportion of patients showed poor knowledge of disease transmission and symptomatology. 50% believed that infection is very contagious but only 49% reported that route of spread is respiratory droplets and 21% believed it spreads via direct contact also. Very few women showed a positive perception of disease prevention and control (<50%).

Conclusion: Obstetric patients have sufficient knowledge regarding COVID-19 pandemic but their attitude and practices are not sufficient to stop the spread of disease in Pakistan.

Key words: COVI-19, Pandemic, Awareness, Attitude, Practices

INTRODUCTION

Emergence of a new health scare named COVID-19 infection being highly contagious has affected millions of people and caused health emergency worldwide since end of 2019. Despite of huge efforts by government and health professionals it is still a leading cause of morbidity and mortality all over the world and in Pakistan as well. All we know yet is that personal preventive measures e.g. hand washing, social distancing and respiratory hygiene are the best way to avoid the infection and spread to others to put a stop on this pandemic of such a highly contagious disease.¹

If we look back in history many infections in the form of epidemics or pandemics victimized masses around the globe since 1918; affecting millions-billions of people by fear, disease and death. H1N1 influenza virus in 1918 caused around 50 million deaths and 500 million morbid; similarly swine flu caused disease in 6.8 billion and death of 5 million across the globe in 2009.² Recently novel corona virus has emerged as a new threat to human health and lives putting a huge burden on physical and mental health of masses and economic crises across the world. WHO declared world health emergency of international concern (PHEIC) in January 2020 after the reported outbreak of highly infectious novel corona virus in city of China named Wuhan in end of year 2019.³ The novel corona virus was named as severe acute respiratory syndrome (SARS-CoV-2) by international committee on taxonomy of virus (ICTV) in February 2020.⁴

Although we do not know everything about the COVID-19 virus but until now scientists have been able to describe it as a large RNA virus with ability to mutate inside host cells. It is a spherical virion morphologically that is composed of core shell having surface projections. This is

a zoonotic pathogen that can spread via animal-human or human-human transmission by respiratory droplets or direct contact.⁵ Initial common symptoms of disease were fever, sore throat, dry cough and fatigue that can lead to more serious symptoms of pneumonia presenting with chest pain, shortness of breath. But with time we know the virus can affect any organ system of body and present with variety of ways from asymptomatic carriers, common cold, severe pneumonia and respiratory failure to sudden death.^{6,7}

Pakistan became victim of this virus in February 2020 when 2 infected persons returned from disease affected area of Iran.⁸ As very less was known about the virus, disease and its transmission at that time when disease started to affect masses around the country and put a huge health and financial crisis. By 7th march, 2021 the total number of reported cases were 592000 and 13227 deaths in Pakistan; while 117, 455, 738 cases and 92,966,234 deaths are reported all over the world.^{9,10}

We aim to identify the flaws, whether it is lack of knowledge, misconceptions and myths or some other factors that are contributing to ongoing pandemic of COVID-19 infection so that new strategy can be developed to overcome those factors and help controlling this pandemic that is causing social, psychological, economic and health destructive effects worldwide and might have bad obstetrical and fetal outcome effects if infection occurs during pregnancy.

MATERIALS AND METHODS

It was a cross-sectional descriptive study conducted at OPD of Department of Obstetrics & Gynaecology Avicenna Hospital Lahore from 5th November 2020 to 4th March 2021 and comprised 200 pregnant women. Those who were not

willing to be part of study and critical/clinically unstable or laboring patients were excluded. A pre-validated questionnaire based on three forms was used to assess KAP towards COVID-19. Analysis was performed using STATA 15.1.

RESULTS

The mean age was 29.3±4 with range of 16-41 years, majority of women belonged to rural areas (72%) and were house wives (42%) and more than half participants had received no formal education (56%). Level of education and working status was observed significantly associated with knowledge, attitude and practices of participants regarding covid-19 infection and preventive measures. Knowledge of participants as shown in Table 2 was satisfactory as out of 200 participants >70% were familiar with covid-19 infection; most common source of information was tv/news channels (76.5%). Large proportion of patients showed poor knowledge of disease transmission and symptomatology. 50% believed that infection is very contagious but only 49% reported that route of spread is respiratory droplets and 21% believed it spreads via direct contact also. Very few people showed a positive perception of disease prevention and control (<50%). Very few participants were willing to follow the preventive policies. So knowledge was sufficient but attitudes when asked about (Table 3) and also the practices of antenatal patients shown in table 4 revealed that <50% participants were satisfied with measures taken by govt. of Pakistan and similarly very few were willing to follow the lock down and other preventive strategies. Although 75% were willing to wash hands frequently only 44% agreed for necessity of face mask. So we observed that attitude and practices require improvement to control secondary transmission to masses and vertical transmission to fetus during this pandemic for reduction in perinatal and maternal morbidity and mortality along with other consequences.

Table 1: Demographic characteristics of participants (n=200)

Variable	No.	%
Age (years)		
<20	23	11.5
20-30	96	48.0
31-40	73	36.5
>40	8	4.0
Education		
No formal education	84	42.0
Primary	21	10.5
Secondary	28	14.0
Intermediate	43	21.5
Higher	24	12.0
Occupation		
Student	19	9.5
Housewife	112	56.0
Working	69	34.5
Area of Residence		
Rural	144	72.0
Urban	56	28.0

Table 2: Knowledge of participants regarding COVID-19 (n=200)

Participant's knowledge	No.	%
Disease outbreak started from		
China	113	56.4
Italy	-	-
Iran	36	18.0
America	21	10.5
Others	30	15.0
Causes of disease		
Bacteria	21	10.5
Virus	143	71.5
Fungi	-	-
Parasite	-	-
Others	36	18.0
Disease can be transmitted through		
Air	98	49.0
Person to person contact	42	21.0
Contact with infected objects	47	23.5
Sexual route	11	5.5
Others	5	2.5
Most susceptible persons for the disease		
Children	21	10.5
Youngsters	5	2.5
Adults & older	143	71.5
Disease not specific to any age group	31	15.5
Infected person show signs and symptoms within		
5 days	121	60.5
6-10 days	5	2.5
11-15 days	30	15.0
Upto 21 days	-	-
I don't know	39	19.5
Signs and symptoms of covid-19 are		
Dry cough, fever, breathlessness	141	70.5
Productive cough, fever, flu	17	8.5
Allergy, seizures, red spots on skin	-	-
Loose motions, fever	3	1.5
I don't know	39	19.5
If a person had contact with infected person what should she do?		
Isolate and wait for signs & symptoms	100	50.0
Immediately rush for covid-19 test	11	5.5
Live a routine normal life	22	11.0
Disinfect herself	-	-
I don't know	67	33.5
Is any specific treatment/vaccine available for covid-19		
Yes	-	-
No	143	71.5
I don't know	57	28.5
What are chances of recovery after being infected by covid-19		
5%	-	-
50%	23	11.5
80%	37	18.5
>95%	120	60.0
I don't know	20	10.0
If someone has symptoms and travel history		
Hide it from all	20	10.0
Inform all related history to doctor	109	54.5
Hide travel history from doctor	11	5.5
Self-medication is effective	37	18.5
I don't know	23	11.5
Primary source of knowledge shared by you is?		
TV/News paper	153	76.5
Social media Apps	15	7.5
Self-surfing in internet	5	2.5
Others	27	13.5

Table 3: Attitude of participants regarding Covid-19

Questionnaire	Attitude of participants towards covid-19			
	Strongly Agree	Agree	Disagree	Strongly Disagree
Govt has taken good measures and provide sufficient information	41(20.5%)	57(28.4%)	75(37.5%)	27(13.5%)
We should stay at home and avoid social contact as directed	51(25.5%)	63(31.5%)	71(35.5%)	15(7.5%)
We should avoid travelling to other cities during this pandemic	58(28.9%)	81(40.5%)	38(19%)	23(11.5%)
Do you think this lock down will be helpful in preventing the spread of infection?	31(15.5%)	70(35%)	78(39%)	26(13%)
Do you think government policies are effective in this outbreak?	29(14.5%)	49(24.5%)	89(44.5%)	33(16.5%)
Despite lock down people are not staying at home	82(41%)	88(44%)	20(10%)	10(5%)
Non-serious attitude of people is leading to increase in number of cases of covid-19	59(29.5%)	35(17.5%)	73(36.5%)	33(16.5%)

Table 4: Practices followed by participants

Questions based on followed practices	Response		
	Yes	No	I don't know
We should wash our hands frequently?	150(75%)	20(10%)	30(15%)
We should avoid touching mouth, nose and eyes?	112(56%)	33(16.5%)	55 (27.5%)
We should wear mask while going out of home?	88(44%)	33(16.5%)	79(39.5%)
We should use hand sanitizer while going out of home?	34 (17%)	79(39.5%)	87 (43.5%)
We should cover our face while coughing or sneezing?	131 (65.5%)	29 (14.5%)	40 (20%)
If we develop symptoms of covid-19, we should isolate ourselves?	57 (28.4%)	22 (11%)	121 (60.5%)
Is it our national responsibility to follow instructions provided by Govt.?	70(35%)	86 (43%)	44 (22%)

DISCUSSION

Although some studies have been conducted in Pakistan regarding knowledge attitude and practices related to COVID-19 pandemic but none has been conducted in obstetric patients and similarly only a few studies has been done worldwide in this regard. Knowledge, attitude and practice surveys done in healthcare workers in Pakistan by Malik et al¹¹ and in Egypt by Abdel Wahed et al¹² showed good knowledge and positive practices while similar study in Egypt conducted by Abdelhafiz et al¹³ revealed good knowledge and practices by Healthcare workers and public visiting hospitals. Parikh et al¹⁴ identified 90% knowledge and average practice along with high level (>80%) of anxiety among Healthcare workers and public. Hospital visitors in Northeast Ethiopia showed moderate knowledge and attitudes related to covid-19 infection and preventive measures as identified by Gebretsadik et al.¹⁵ Majority of KAP studies conducted in Pregnant women round the globe revealed results consistent with present study as Fikadu et al¹⁶ identified 76% knowledge and 54% practices in pregnant women of Gurahe; likewise Ayele et al¹⁷ found that among antenatal women in Northwest Ethiopia 48% had good COVID-19 related knowledge and 47% were practicing personal preventions.

Congruently Nwafor et al¹⁸ found women in low resource Africa settings were having adequate knowledge (60%) but poor preventive attitudes (31%) during pregnancy. Women in Singapore were identified having moderate level of knowledge with high level of anxiety so majority so most of them liked to stay home while their antenatal period specially those visiting tertiary care hospitals concluded by Lee et al.¹⁹ Only two countries KAP survey results were found not in harmony with present research showing moderate Knowledge and good attitude and practices of antenatal women in India as expressed by Kamal et al.²⁰ Comparably women in southeast Nigeria showed adequate knowledge, attitudes and practices during antenatal period but meanwhile some false perceptions were also identified as 24% women thought that Covid-19 infected patients should be killed to stop the pandemic and >50% considered this as curable disease with chloroquine during a study conducted by Anikwe et al.²¹ Government and health authorities have been

constantly disseminating information regarding covid-19 from the aspects of cause and prevention but meanwhile a surge in fake/false information have also been noted. In our study a large proportion of antenatal patients answered “I don't know” for KAP related to covid-19 this is alarming & makes it more necessary to increase awareness in female population in our country.

Knowledge is crucial drive for good attitude and right practices as it has been observed that lack of right knowledge is directly related to panic in masses regarding this newly emerged disease with no background information and no cure available yet so prevention being the only hope to cope with.

So we recommend that a media and social media campaign should be started to educate people in right direction and also the patient education programs should be started in hospitals as knowledge, attitude and practices are associated with incidence of infectious disease and we need to work harder in eradication of current pandemic.⁴

There is an intense need of increasing awareness in antenatal women regarding COVID-19 infection and importance of its preventive measures to help in controlling disease spread and reduce burden on country in terms of morbidity and mortality. We recommend conducting more large scale surveys and pregnancy related research to increase knowledge regarding short term and long term effects of covid-19 infection on obstetric outcomes. So that effective counseling of antenatal patients and masses can be done in future.

CONCLUSION

Obstetric patients have sufficient knowledge regarding covid-19 pandemic but their attitude and practices are not sufficient to stop the spread of disease in Pakistan. We observed that people need more awareness in right direction to counter the false news and self-created myths to help them accept the fact that prevention is best strategy to face and cope with this global hard time and stop the transmission of disease by safe practices, quarantine and vaccination and also reduce risk of maternal and perinatal morbidity and mortality that might be associated with this infection.

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