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Research Article

Barriers in Seeking Antenatal Care (ANC) During the COVID - 19 Pandemic at a Tertiary Health Care Centre

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A B S T R A C T

Background: Upon the declaration of COVID-19 as a public health emergency and pandemic, the subsequent steps led to significant changes in the healthcare system of our country. Multiple healthcare services and programs were affected, which included Antenatal care (ANC) services as well. This study attempts to evaluate the barriers in seeking ANC and factors associated with it during the COVID-19 pandemic at a tertiary care health centre in New Delhi.

Methods: Hospital-based, cross-sectional study among the patients attending the ANC clinic from April 2021 to September 2021, using a pre-tested, face-validated, interviewer-administered questionnaire upon consent by the participant.

Results: Out of 140 participants, 55.71% faced at least one problem in seeking ANC. In the second trimester, 44.68% and in the third trimester, 64.04% of participants faced problems. Participants in the first trimester didn't face any problems. The problem in ANC visits was the most common barrier among the participants reporting facing problems (85.71% in the second trimester and 98.25% in the third trimester). Other problems included getting blood investigations done, ultrasound scans, receiving calcium and IFA supplementation, information regarding pregnancy and getting TT doses. Lack of transport and fear of contracting COVID-19 were the two most significant reasons behind the barriers.

Conclusion: COVID-19 pandemic had a significant impact on ANC services. The major contributing factors were fear of contracting the disease, lack of transport and finance, and the government's increased focus on COVID-19 patients' care. Better preparedness will help in a better response to such conditions.

Keywords: COVID-19 Pandemic, Seeking ANC, Public Health, Trimester, Facing Problem

Introduction

World Health Organization (WHO) declared COVID-19, a Public Health Emergency of International Concern on January 30, 2020, and subsequently a global pandemic on March 11, 2020.[1] A wide range of services were affected, including essential services for communicable diseases, non-communicable diseases, mental health, reproductive, maternal, newborn, child and adolescent health, and nutrition services.[2] It was found that there was a drastic fall in the number of institutional deliveries, especially during the period of strict lockdown. The women preferred home deliveries or deliveries at a nearby health facility, due to either inaccessibility, lack of transport, or fear of contagion from big institutes.[3] Amidst the variety of affected population strata, one stratum of the population that received literally no solutions is expectant mothers.[4]

The interim focus of the government on COVID care facilities led to the negligence of non-COVID patients. The acute conversion of many of the healthcare facilities to COVID care facilities led to the unavailability of maternity centres, healthcare staff providing obstetric services, lack of medicines and lack of biochemical lab services.

Maternal mortality and perinatal mortality are key indicators of any country's healthcare system and are of prime concern in healthcare management. Essential services for women's reproductive healthcare have been affected raising several important questions about ensuring safe, timely and quality maternal care.[5] New mothers need to be better supported and informed to protect themselves and their families not just from COVID-19 but to ensure that as best as possible, they are doing what they can to follow recommended guidelines for care in the perinatal period to achieve the target of a double-digit maternal mortality rate from the current triple-digit rate.[4] The present study evaluated the barriers to seeking ANC services and to find the factors associated with these barriers among the study population during the COVID-19 pandemic.

To the best of our knowledge, this is the first study from North India which intends to explore the factors associated with these Barriers in seeking Antenatal Care Services during the COVID-19 Pandemic, which might be an important study to help develop and plan adequate measures for any upcoming COVID-19 wave or any other such future event.

Materials and Methods

A cross-sectional study was conducted among the patients attending the Antenatal Care (ANC) Clinic of Dr RML Hospital from April 2021 to September 2021 during the second wave of the COVID-19 pandemic in India. Taking the prevalence of Singh et. al. the prevalence (22.91%) was used to calculate the sample size. The estimated sample size was 134 and it was achieved via random sampling. Patients not willing to participate were excluded from the study. Written Informed Consent was taken from all the participants. A total of 140 patients participated in this study.

A pre-tested, face-validated, interviewer-administered questionnaire translated into Hindi consisting of a Socio-Demographic Profile, Obstetric history and barriers and factors influencing these barriers was used as a tool for collecting data from the study subjects.

Results

We interviewed a total of 140 Pregnant women out of which 4 (2.86%) were in the first trimester, 47 (33.57%) were in the second trimester, and 89 (63.57%) were in the third trimester. In our study, 111(79.29%) women were <30 years of age and only 29 (20.21%) were >30 years of age. The median age of the study population was 28 years. As per occupation, 106 (75.71%) women were homemakers and the rest 34 (24.29%) were working.

The study revealed that out of 140 interviewed pregnant women, 78 (55.71%) reported facing at least one problem in seeking antenatal care, whereas 62 (44.29%) didn't face any problem.

Patients in the first trimester didn't face any problem.

In the second trimester, 21 (44.68%) out of 47 participants faced problems, whereas 26 didn't face any problem.

In the third trimester, 57 (64.04%) out of 89 participants faced problems, whereas 32 didn't face any problem.

There was a trend of decreasing problems in seeking antenatal care from the third trimester to the first trimester.

Problems in taking ANC visits to the hospital emerged as the most common barrier faced by these patients. Almost all patients in the third trimester faced this barrier in their antenatal care. In the second trimester 18 (85.71%) women and in the third trimester 56 (98.25%) women faced problems in their ANC visits.

Getting blood investigations done was the second most common problem. In the second trimester 5 (23.81%) women and in the third trimester 14 (24.56%) women faced problems in getting their blood investigations done, 68 (50.74%) out of 140 participants got their investigations done at private labs and the remaining 66 (49.26%) got their investigations done at government labs.

Other significant barriers faced, in the decreasing order of accordance were difficulty in getting USG scans done, difficulty in receiving Calcium and IFA tablets, difficulty in receiving information regarding pregnancy and difficulty in getting TT doses. One patient in our study group had late detection of congenital defect fetal pyelectasis at 28 weeks, as her level II scan was not done timely in the second trimester.

Lack of transport and fear of contracting COVID-19 are the two most significant reasons behind the barriers to seeking ANC services by the affected pregnant women population.

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In the second trimester, 10 (47.62%) per cent of participants and in the third trimester 31 (54.39%) per cent of participants reported facing problems in seeking ANC services due to lack of transport.

In the second trimester, 12 (57.14%) per cent of participants and in the third trimester 30 (52.63%) per cent of participants reported problems in seeking ANC services due to fear of contracting COVID-19 infection while visiting hospitals.

An about equal percentage of affected women in the second (19.05%) and third (19.30%) trimesters reported the unavailability of healthcare staff as the reason for the difficulty in seeking ANC services.

A significant number of patients (9.52%) in the second trimester and 14.04% in the third trimester) reported the expensive cost of transportation as the reason for not attending the ANC clinic.

In our study, 9.52 % of patients in the second trimester and 10.53 % of patients in the third trimester were referred from other hospitals, as their local maternity centres were converted to 100 % of COVID care centres.

Other reasons included the lack of availability of medicines in government hospitals.

Additionally, many patients reported being stuck in places due to local lockdown and curfew restrictions of COVID.

Table 1.Socio-Demographic Profile

Parameters	Trimester I (%)	Trimester II (%)	Trimester III (%)	Total (%)
Number of Cases (n)	4 (2.86)	47 (33.57)	89 (63.57)	140 (100)
Age (median years)	26	28	28	28
18-30	4 (100)	37 (78.72)	70 (78.65)	111 (79.29)
>30	0 (0.00)	10 (21.28)	19 (21.35)	29 (20.71)
Educational Status				
Illiterate (no education)	0 (0.00)	1 (2.13)	0 (0.00)	1 (0.71)
No Formal Education but can Read & Write	0 (0.00)	1 (2.13)	1 (1.12)	2 (1.43)
Up to Primary (class 5)	0 (0.00)	4 (8.51)	2 (2.25)	6 (4.29)
Senior Secondary school	2 (50)	13 (27.66)	23 (25.84)	38 (27.14)
Graduate	2 (50)	15 (31.91)	43 (48.31)	60 (42.86)
Postgraduate and above	0 (0.00)	13 (27.66)	20 (22.47)	33 (23.57)
Occupation				
Housewife	4 (100)	35 (74.47)	67 (75.28)	106 (75.71)
Others	0 (0.00)	12 (25.53)	22 (24.72)	34 (24.29)
Number of family members (median)	4	5	5	5
Socio-Economic Statusa				
I (7533 and above)	4 (100)	16 (34.04)	34 (38.20)	54 (38.57)
II (3766 to 7532)	0 (0.00)	21 (44.68)	39 (43.82)	60 (42.86)
III (2260 to 3765)	0 (0.00)	6 (12.77)	11 (12.36)	17 (12.14)
IV (1130 to 2259)	0 (0.00)	4 (8.51)	3 (3.37)	7 (5.00)
V (1129 and below)	0 (0.00)	0(0.00)	2 (2.25)	2 (1.43)

[a]BG Prasad scale

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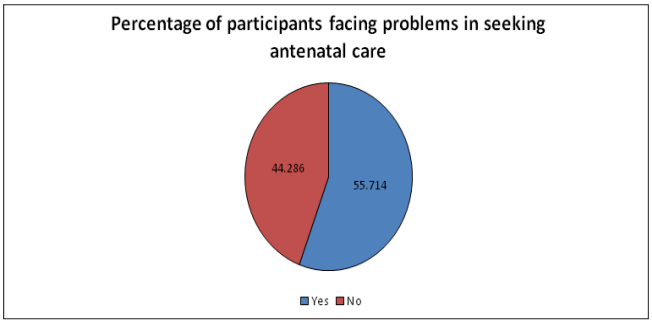

Figure 1.Percentage of Participants Facing Problems in Seeking Antenatal Care

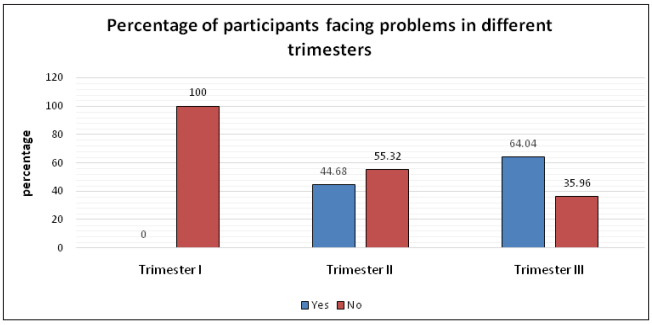

Figure 2.Percentage of Participants Facing Problems in Different Trimesters

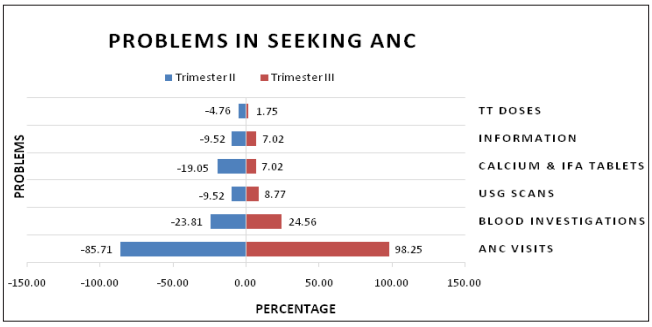

Figure 3.Problems in Seeking ANC

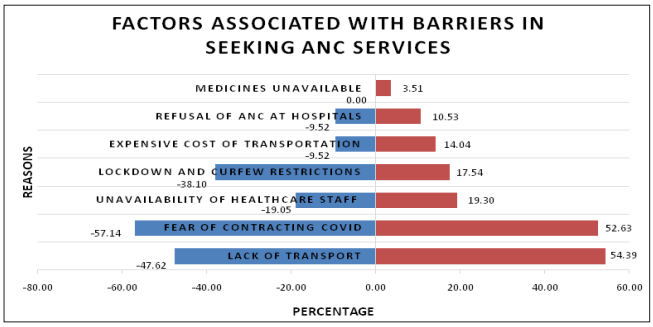

Figure 4.Factors Associated with Barriers in Seeking ANC Services

Discussion

In our study, 55.71 % of pregnant women reported facing at least one barrier in seeking ANC services. The majority of patients had difficulty attending the hospital for routine ANC visits while, others reported difficulties in getting a Tetanus Dose, followed by a small number of women reporting difficulty in receiving medicines, information regarding the pregnancy, getting blood investigations and ultrasound done.

The most common factor associated with barriers in seeking ANC Services was lack of transport, followed by fear of contracting COVID-19 and inability to get monetary help. A similar study by Erkihun Tadesse in Ethiopia reported that the inaccessibility of ANC utilization was due to the lack of transport availability.[6]

In our study, 68 (50.74%) out of 140 participants had their investigations done at private labs and the remaining 66 (49.26%) had their investigations done at government labs. This shows that there was an acute shortage of laboratory services in a government healthcare facility during the second wave of the COVID-19 Pandemic, which is in line with the study conducted by Zacharias et al from Karnataka.[7] 8 out of the 140 patients had complications like IUGR, late detection of congenital anomaly, gestational diabetes and hypothyroidism during the pregnancy which was diagnosed late due to delay in antenatal visits. These could have been possibly avoided in or timely managed.

These findings clearly reveal the impact of the COVID-19 Pandemic on access to ANC Services. This study was conducted in the National Capital of India where Healthcare services are better and the healthcare system is stronger than in most of the states in India. It can only be assumed that pregnant females from other states especially from BiMaRUp (Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh), must have experienced the exaggerated effects of lockdown and unavailability of ANC Services as reported by AK Singh et al.[8]

The finding that the pregnant women in the first trimester didn't face any problems can be associated with the fact that antenatal visits in the first trimester are less frequent and widely spaced, as compared to those in the second and third trimesters.

During the pandemic, healthcare facilities became more targeted towards COVID-19 patients, and many of the government institutions were converted to 100% dedicated COVID care centres, as a result of which non-COVID pregnant women were referred to other centres without developing any proper referral system, thus creating a state of confusion and discomfort for the patients. In our study also 9.52 % of patients in the second trimester and 10.53 % of patients in the third trimester similar cases were referred from other hospitals. These results are similar to the finding of the study by S. Garg et. al. which says that many medical institutions decreased ANC services in their settings during COVID-19.[9]

Telemedicine services were started at our institution also,

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but only a few patients utilized them because of the lack of awareness.

The COVID-19 Pandemic is far from over, yet the rise of newer variants is of concern; the impending upcoming waves can disrupt ANC Services again. We need to learn from the previous two waves of COVID-19 regarding the appropriate, feasible and sustainable model of providing ANC Services so that these barriers to seeking ANC Services do not result in adverse maternal and perinatal outcomes.

Limitations

It was a single-centre study and therefore, the results cannot be generalized to another hospital. Since the history included recalling the events of the past 9 months, the risk of recall bias cannot be ruled out. Also, it was a hospital based study, therefore we could not comment on the barriers faced by pregnant women in the community.

Conclusion

The COVID-19 pandemic has led to the disruption of healthcare systems worldwide. The results of our study also suggested that it had a significant impact on Antenatal Care services. The major contributing factors were fear of contracting the disease, lack of transport and finance, and the government's increased focus on COVID-19 patients' care. Though we need to take care of COVID-19 patients, but proper care and attention need to be given to non-COVID antenatal pregnant women as well. We need to evolve with the pandemic and policymakers should ensure that these barriers should be a timely addressed so that we are better prepared for the next COVID-19 waves or any other similar situations in future.

Various information, education and communication tools can be incorporated to increase awareness among pregnant women and in addition, telemedicine can also be better incorporated into ANC services to overcome these barriers.

Ethical Considerations

Ethical clearance was taken from the Institutional Ethics Committee of ABVIMS and Dr. RML Hospital.

Conflict of Interest: None

Acknowledgement

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