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Research Article

An Exploratory Study to find out the Factors Affecting the Utilization of Antenatal Care Services Among Married Women of Reproductive Age Group (15-45 Years) During Covid-19 Pandemic in Selected Hospital of Delhi

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A B S T R A C T

Introduction: Mother and child must meet their health needs, which differ from those of others. Health services for mothers are considered critical health services that should be maintained throughout the COVID-19 pandemic. Therefore, a descriptive study was undertaken to find out the factors affecting the utilisation of ANC services during COVID-19 pandemic in a selected hospital in Delhi.

Objectives: The study was conducted to assess the awareness and utilisation pattern of ANC services, factors affecting the utilisation of ANC services during the COVID-19 pandemic, and to seek an association between factors affecting and selected demographic variables.

Methodology: A descriptive, cross-sectional study was conducted, and a convenient sampling technique was used. The sample of the present study comprised 100 antenatal women who come under the 15-45 age group and utilised the antenatal care services (ANC) during the COVID-19 pandemic in a selected hospital of Delhi. The data was collected in the month of January 2022 through a structured interview schedule. Descriptive and inferential statistics were used to analyse the data.

Result: The study showed that the majority of the married women of the15-45 years age group had moderate utilisation of ANC services during the COVID-19 pandemic.

Conclusion: The study concluded that the majority of antenatal women used ANC services moderately because the fear of getting a COVID-19 infection, distance from the house to the hospital, and anxiety about delivery during COVID-19 were the factors that affected the utilisation of ANC services.

Keywords: Married women of reproductive age group (15-45 years), ANC Services, COVID-19 Pandemic, Utilisation, Factors

Introduction

According to World Health Organisation data, there were reported high maternal and infant mortality cases over the last decades, as evidenced by research and literature. Sample Registration System (SRS), whose main goal is to provide reliable estimate data of the birth rate, death rate, and infant mortality rate.[1]

According to the World Health Organisation (WHO) in 2001, the high-risk antenatal care model was developed primarily for high-income countries. The revised model was based on fewer but more focused clinic visits (focused antenatal care), with at least four visits to a health facility during pregnancy.[2]

According to a study, out of 301 women, only 24.6 % use antenatal care services during the first trimester of pregnancy.[3] Another study found a high rate of late antenatal care initiation. Four hundred fifty-seven women attended six urban and six rural antenatal care clinics. According to the findings, only 8.1% of pregnant women attended their first antenatal care visit during the first trimester, while 62.8 % and 29.1% attended their first antenatal care visits during the second and third trimesters, respectively.[4] It was found that only a smaller number of pregnant women used the antenatal care services during the COVID-19 pandemic.

As time passed, mothers began to place a greater emphasis on antenatal care services and consider antenatal care services to be more important during pregnancy. It is encouraging that India's Maternal Mortality Ratio (MMR) has decreased from 130 in 2014-2016 to 122 in 2015-2017 to 113 in 2016-2018. (1) With the help of four antenatal care visits, early diagnosis and treatment of high-risk cases by skilled health professionals and cutting-edge technologies, WHO is on the verge of meeting its goal of reducing MMR by 100 in the coming era.

However, a new coronavirus outbreak was discovered in December 2019 in Wuhan, China, and has since spread to other countries around the world. The disease is caused by a virus known as COVID-19, and the World Health Organisation (WHO) declared it a global pandemic on March 11, 2020. [5]

The COVID-19 pandemic is making it difficult for countries to continue providing high-quality, essential maternal and newborn health services. Pregnant women and mothers with newborns may have difficulty accessing services due to transportation disruptions and lockdown measures, or they may be hesitant to visit health facilities for fear of infection.[6]

As a result of pandemics, a modest 10% decrease in coverage of pregnancy-related and newborn healthcare services was reported. This would result in the deaths of 28,000 mothers. According to a recent study conducted in the United States, ANC coverage reductions of 39.3–51.9 percent as a result of the pandemic would result in 56,700 additional maternal deaths. [7]

During the current SARS-CoV-2 pandemic, anxiety and worry were observed to be higher among pregnant women. A vital link in the continuum of care is broken during this time, and it impacts both women and babies. In this, the author is explaining the factors affecting the antenatal care services.

Subjects and Methods

The quantitative research approach was adopted for the study with a descriptive cross-sectional research design, and a convenient sampling technique was used. It means when the married women come, then only I have taken the sample conveniently, written consent was taken and I explained the purpose of the study. The setting of the study was Swami Dayanand Hospital, Dilshad Garden, New Delhi. The sample of the study comprised 100 married women of the reproductive age group (15-45 years) who were utilising the ANC services in the hospital antenatal OPD during the COVID-19 pandemic in a selected hospital in Delhi in January 2021, 9 AM to 2 PM. Ethical clearance was obtained from the Institutional Ethical Committee of Jamia Hamdard, New Delhi, to conduct the research. The consent was taken from each participant. The tool was developed through an extensive review of the literature to develop the items and scoring technique.

The tool was organised into 2 sections. Section A included the demographic characteristics, and Section B included the Utilisation of ANC services by married women during the COVID-19 pandemic. It consists of 30 items.

The validity of the tool was ensured by 7 experts. 3 experts from community health nursing and 4 experts from obstetrics and gynaecology nursing. Necessary modifications were incorporated based on their suggestions. Kuder–Richardson Formula 20 (KR-20) was used to check the reliability of the tool, and the R-value was found to be 0.98. After obtaining formal permission from the concerned authority, a pilot study was conducted on 10 subjects. The result of the pilot study indicated that the study was feasible. After the pilot study, the final study was conducted on 100 samples with the use of descriptive and inferential statistics for data analysis. To analyse the association between factors affecting the utilisation of ANC services during the COVID-19 pandemic with the selected variables of the sample Fisher Exact Test and Chi-Square Test was used.

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Results

Table 1.Frequency and percentage distribution of married women as per their demographic characteristics

Sample Characteristics	Frequency/ Percentage
Age (in years)	
15-24	46
25-34	54
35-44	0
45 or above	0
Gravida	
Primi gravida	50
Multi gravida	50
Dietary Pattern	
Vegetarian	28
Non-vegetarian	54
Eggetarian	18
Vegan	0
Religion	
Hindu	70
Muslim	30
Christian	0
Sikh	0
If others, specify _____	0
Educational Qualification	
No formal education	14
Can read and write	0
Up to Primary education	30
Up to Secondary education	34
Up to Graduate and above	22
Occupation	
Homemaker	90
Private job	6
Government job	1
Self-employed	3
Family's monthly income	
≥ Rs. 10,000/-	27
Rs. 10,001-20,000/-	49
Rs. 20,001-30,000/-	9
Rs. 30,001 and above	15
Type of family	
Nuclear family	26
Joint family	68
Extended family	4
Reconstituted family	2
Distance of hospital from the house	
Within 1 km	1
1.5-2 km	25
2.5-3 km	37
≥ 3.5 km	37
Residency	
Urban	73
Rural	11
Semi-urban	9
Semi-rural	7
Health decision-maker	
Self only	20
Jointly with husband	58
Husband only	1
If other, specify _____	21

Table 1 shows the demographic distribution of the participants.

Table 2.Mean, Median, and Standard deviation of the utilization of ANC services among married women of the reproductive age group

n=100

	The possible range of scores	Range of obtained scores	Mean	Median	Standard deviation
Utilization of ANC services scores	Good 21-30 (≥70%)	21-24	16.59	16.50	3.303
	Moderate 11-20 (>33-66%)	11-20			
	Poor 0-10 (≤33%)	1-3			

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Table 2 shows the findings on the assessment of the utilisation of ANC services of married women and factors affecting the services during the COVID-19 pandemic. Mean or median based on the normality of data because numbers are almost similar.

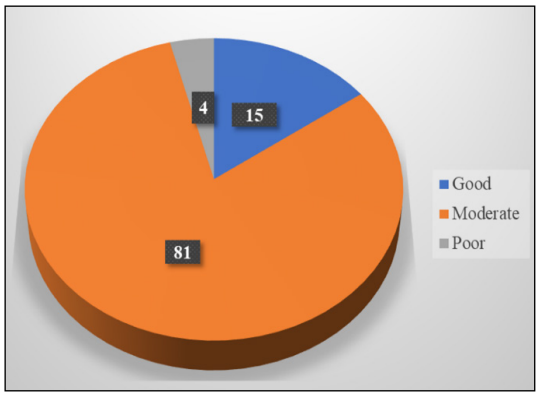

Figure 1.Shows the frequency of married women as per their utilization of ANC services

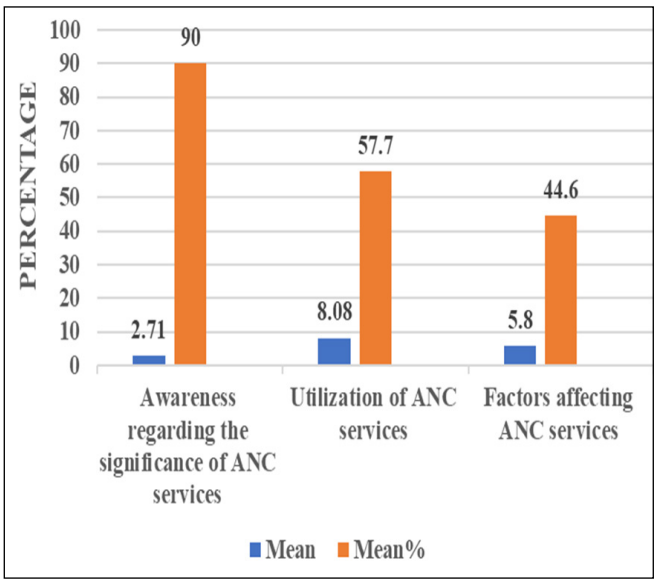

Figure 2.Shows the utilization of ANC services of different sections of the married woman

Table 3.Frequency of Factors score to identify the effects of COVID-19 on utilization of ANC services

n=100

S.no.	Factors	Frequency Yes
1.	Hear about COVID-19	99
2.	Spreading of COVID-19	35
3.	Fear to visit the hospital	65
4.	Fear for COVID-19	44
5.	Health care providers Not using PPE	65
6.	Problem face visit hospital	26
7.	Taken COVID-19 vaccine	62
8.	Use of different PPE for a different woman	9
9.	Problem faced to get admission	14
10.	Want to know about preventive measures for COVID-19	80
11.	Fear of getting quarantine	30
12.	Migrated	3
13.	Anxious about delivery	48

Table 4 (a).Association between factors affecting the utilization of ANC services during the COVID-19 pandemic and the selected demographic variables

n=100

Category	Good utilization	Average utilization	Poor utilization	df	Test value	p-value
Educational Qualification						
No formal education	1	2	11	6	8.5	0.12
Can read and write	0	0	0			
Up to Primary education	2	9	19			
Up to Secondary education	0	16	18			
Up to Graduate and above	2	5	15			

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Occupation						
Homemaker	4	30	56	6	8.2	0.24
Private job	1	0	5			
Government job	0	1	0			
Self-employed	0	1	2			
Family's monthly income						
≥ Rs. 10,000/-	1	6	20	6	5.4	0.49
Rs. 10,001-20,000/-	4	15	30			
Rs. 20,001-30,000/-	0	4	5			
Rs. 30,001 and above	0	7	8			
Religion						
Hindu	3	24	43	2	0.89	0.70
Muslim	2	8	20			
Christian	0	0	0			
Sikh	0	0	0			
If others, specify_____	0	0	0			

Note: Fisher's exact test has been applied to find out the association between demographic variables and factors affecting the ANC services during COVID-19 pandemic, which found no association.

Table 4 (b).Association between factors affecting the utilization of ANC services during the COVID-19 pandemic and the selected demographic variables

n=100

Category	Good utilization	Average utilization	Poor utilization	df	Test value	p-value
Age in years						
15-24	1	16	30	2	1.4	0.42
25-34	4	16	33			
35-44	0	0	0			
45 or above	0	0	0			
Gravida						
Primi gravida	0	18	32	2	5.5	0.06
Multi gravida	5	14	31			
Dietary pattern						
Vegetarian	1	9	18	4	1.0	0.95
Non-vegetarian	3	16	35			
Eggetarian	1	7	10			
Vegan	0	0	0			
Type of family						
Nuclear family	3	8	15	6	4.6	0.55
Joint family	2	23	43			
Extended family	0	1	3			
Reconstituted family	0	0	2			

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Distance						
Within 1 km	0	0	1	6	5.4	0.42
1.5-2 km	2	7	16			
2.5-3 km	3	12	22			
≥ 3.5 km	0	13	24			
Residency						
Urban	4	25	44	6	6.0	0.42
Rural	0	3	8			
Semi-urban	0	4	5			
Semi-rural	1	0	6			
Health decision-maker						
Self only	1	3	16	6	5.9	0.54
Jointly with husband	3	22	33			
Husband only	0	0	1			
If other, specify ___	1	7	13			

Table 3 shows the findings related to factor scores to identify the effects of the COVID-19 pandemic on the utilisation of ANC services among married women of the reproductive age group (15-45 years).

Tables 4 (a) and (b) show no association between factors and selected demographic variables by Fisher's exact test

Discussion

The present study revealed that 81 women had moderate utilisation of ANC services out of 100 out of them, 19 primigravida mothers and 1 multigravida mother don't know about ANC services. Out of 100 samples, 4 women came to know about their pregnancy in the second trimester.

Out of 100 samples, 53 had a T.d. injection in the1st trimester and registered their name as well, 33 took a T.d. dose after the 1st trimester of pregnancy and 14 women had not taken a T.d. injection during their pregnancy. Out of 100, only 38 took the 1st dose of the T.d. injection, 29 women took the 2nd dose after one month, and 19 women took their 2nd dose of T.d. after two months of the1st dose of T.d.

Women 45 who lie between the age group of 15-24 years out of the 4, none had formal education, 19 were educated up to primary, and the rest were graduated. Based on their residency, 43 belonged to urban areas and 2 to rural areas. Most of the 30 women belonged to adequate wealth status, with income more than 10,000 Rs, and 15 had low socioeconomic status. Mostly women were homemakers 44 and a few were self-employed and private job workers. The distance between their house and the hospital was more than 1km, most of the women took IFA tablets 37 and 8 were not taken, only 2 women got advice from health personnel about birth preparedness, and only 13 women were advised about family planning.

Women in the age group 25-34 years were highly qualified 37, with no formal education women were 9, and 9 had no formal education. Women 44 lived in an urban area with good wealth conditions. Only 11 women resided in a rural area with low socioeconomic conditions. Of most of the women, 51 were taken IFA during pregnancy, and 4 were not taken.

46 women were homemakers, six were from private jobs, one was doing government jobs and 2 were self-employed. Only 16 got information about birth preparedness out of 55, and only 16 were informed about family planning.

The findings of the study fall in line with the study done by Sanni Yaya et al, 2020 in Sierra Leone. A cross-sectional study was conducted to assess the prevalence of using ANC services. where found that a higher rate of taking the T.d. injection was 96% as compared to only 65% who reported receiving at least two doses of T.d. immunisation during their pregnancy. One in four 24.7% were 25-29 years of age, two-thirds lived in rural areas 68.7%, and three-fifths had no formal education. 59.7% and 27.1% were from households with the poorest wealth, and 46.2% had delivered at least once.[8]

The present study revealed the factors that affect the utilisation of ANC services during the COVID-19 pandemic among married women of reproductive age out of 100 women,

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99 knew about COVID-19 but not one was known, only 35 knew how it spread to others, 65 had fear of visiting the hospital to get infected and spreading the infection from others, 44 had fear to the COVID-19 test in the sense of its procedure, 65 women said that healthcare professionals were not using PPE while facilitating ANC services, and 26 women were facing problems while visiting the hospital due to transport, distance, and non-availability of vehicles. 62 women had not taken the COVID-19 vaccine during pregnancy because of misconceptions and myths about the vaccine that were conveyed by the ASHA worker and the staff of the dispensary and hospital. Only 9 said 'yes' in regards to using different PPE for different women by the healthcare provider, 14 were facing problems getting admission to the hospital, 80 women were highly not knowledgeable about preventive measures for COVID-19 during pregnancy after visiting the hospital, and 48 women were anxious about her delivery and the outcome of delivery in regards to who would conduct the delivery, fear of lockdown, and fear to getting an infection for her newborn after delivery. The findings of the study fall in line with the study done by Erkihun Tadesse, et. al., 2020,[10] A cross-sectional study was conducted among pregnant women attending ANC services at a public hospital in Northeast Ethiopia. They discovered that 114 pregnant women (29.3%) had fully utilised antenatal care services during the pandemic period. Mothers over the age of 35 with secondary education or higher, a history of stillbirth before the most recent pregnancy, interruption and diversion of services due to COVID-19 response, fear of COVID-19, and a lack of transportation access were all predictors of full antenatal care service utilisation. Three out of every ten pregnant women who visited the obstetric outpatient clinics used antenatal care services completely. Encouragement of women's educational status, prioritisation of maternal health services during COVID-19, and improvement of ANC service quality should be prioritized.[3]

Conclusion

The study concluded that married women faced problems due to the COVID-19 pandemic in the utilisation of ANC services. The conclusion of the study is that many factors are found in the study which were affecting the utilisation of ANC services during the COVID-19 pandemic, which is mentioned in the study.

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Declaration of Generative AI and AI-Assisted Technologies in the Writing Process: None

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