

COVID-19 RELATED FACTORS ASSOCIATED WITH ANTENATAL CARE IN RURAL BANGLADESH: A QUALITATIVE STUDY

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ABSTRACT

OBJECTIVE

The available literature reveals that usage of Maternal Health Care Services (MHCSs), including antenatal care (ANC), has decreased significantly in developing countries due to the Corona Virus Disease (COVID-19) pandemic. However, the COVID-19 related factors on MHCSs utilization in Bangladeshi women are yet to be examined. Therefore, this study examines the effect of COVID-19 on the use of ANC services among rural communities in Bangladesh.

METHOD

A community-based qualitative study was conducted from May 01, 2021, to July 20, 2021, among selected pregnant women residing in ten villages of the Kushtia District, Bangladesh. A total of ten focus group discussions (FGDs) were conducted. Open Code 4.0 software was used to transcribe, translate, and analyze the data thematically.

RESULTS

Findings suggest that the measures taken by the government against the COVID-19 pandemic have significantly decreased the optimum usage of ANC services. The need to shift the role of the health workforces is a vital factor that has a negative effect on women's attitude towards seeking MHCSs. Anxiety, dirty and poor environment of the health facilities, low quality of care, stigma, and risk minimization strategies are among other factors meant that pregnant women refrained from seeking ANC services.

CONCLUSION

Undoubtedly, COVID-19 related factors have decreased the possible usage of ANC services among rural communities in Bangladesh. Additional necessary health workforces are needed to be recruited urgently. A special wing for pregnant women in each health facility may be opened as a one-stop ANC service center for the COVID-19 period. Policymakers should take necessary actions to reduce anxiety among pregnant women and motivate them to use MHCSs for safe motherhood.

KEYWORDS

Bangladesh, Covid-19, Antenatal care, Qualitative study, Health facility.

INTRODUCTION

The world has fallen under an unprecedented burden in health care systems due to the Coronavirus Disease 2019 (COVID-19). The progress in maternal health care services (MHCSs) utilization is now under threat due to this unexpected pandemic. [1] COVID-19 has stuck both the supply and demand for MHCS. On one side, usage of MHCS has decreased with the pandemic; on the other side, health facilities prepared and reorganized their maternity care services to handle COVID-19 patients. [2]

Since the detection of COVID-19 first in China in December 2019, the virus has spread out rapidly worldwide. The virus hastily changed its patterns many times. The Delta pattern of the COVID-19, found first in India, has been moving swiftly to other countries. As of July 20, 2021, the Worldometer recorded more than 191,733,410 confirmed cases, 4113,054 deaths, and 174,585,511 recovered cases. [3] The latest pattern of COVID-19 called Omicron is now the main concern of the health professionals around the world.

In Bangladesh, the first three cases of COVID-19 were detected on March 08, 2020, and the first death on March 18, 2020. [2] As of July 20, 2021, Bangladesh has witnessed total death numbers of 18,325 people due to COVID-19. By this time, a total of 1128,889 cases have been confirmed, and 951,340 people have recovered. [4]

Bangladesh is one of the most vulnerable countries of the COVID-19 pandemic due to its poverty and flawed health care system. Lack of medical personnel, technicians, equipments, medicines, and affordability costs has placed the country at a higher risk of tackling the pandemic. The World Health Organization (WHO) Emergency Committee has announced that the transmission of COVID-19 could be reduced and discontinued by contact tracing, early detection, isolation, and prompt treatment. [5]

Irrespective of pregnancy status, women are at the same risk of transmission of COVID-19, but morbidity outcomes were found higher among pregnant women compared to non-pregnant women. [6,7] Although studies are yet to confirm the transmission of the virus from mother to fetus; however, pregnant women may be at higher risk of viral respiratory infections. Earlier, the Ebola outbreak in West Africa increased maternal mortality by 75%. [8] Therefore,

researchers suspect that COVID-19 may increase maternal mortality for women's non-use of MHCSs. [9]

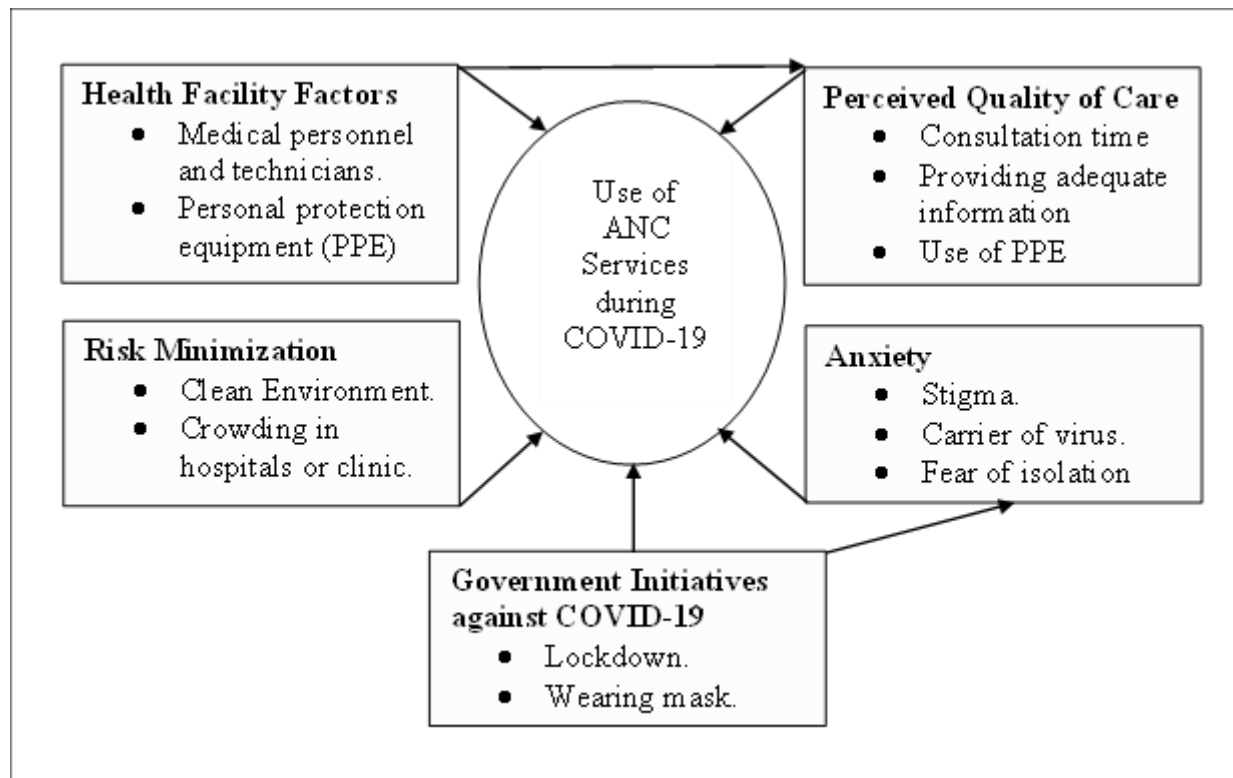
An estimated 295,000 women died in 2017 worldwide due to pregnancy and child-birth related complications. [10] The WHO recommends at least four antenatal care (ANC) visits to improve maternal and newborn health; because most of these births are avertable by early detection of complications by ANC. [11] A study on Ethiopian women added that ANC visits reduced by 39% to 52% due to COVID-19. [12]

The critical elements of ANC include screening, treatment of minor ailments, counseling, and immunization services. [13] ANC visits are essential for both maternal and fetal health. ANC visits help pregnant mothers providing information regarding proper nutrition, detect and treat danger signs, birth preparedness, and care for pregnancy complications. [9] Pre-eclampsia, eclampsia, anemia, diabetes, etc., may create severe complications and even death, which ANC can detect. [9]

Bangladesh is committed to ensure safe motherhood for each woman and aims to reduce the maternal mortality ratio to 121 deaths per 100,000 live births by 2022. [14] According to the latest Bangladesh Demographic and Health Survey 2017-18, 43% of the rural women visited for ANC at least four times which was 17% in 2004. [15] Studies from developing countries, including Bangladesh, reported that maternal age, parity, women's education, place of residence, religion, socioeconomic status, distance to health care facilities, road difficulties etc. are important determinants of ANC seeking. [15-17]

Pregnant women and mothers with newborns may experience various difficulties in using MHCS caused by lockdown and transportation problems during COVID-19 era. They may also be reluctant to go to health care facilities due to anxiety and fear of COVID-19. [9] This study aims to explore the effect of the COVID-19 pandemic on ANC seeking among the rural pregnant women of the South-Western part of Bangladesh using field survey data by adopting a conceptual framework developed by Hailemariam et al. [12] The conceptual framework has been shown in Figure I.

FIGURE 1: CONCEPTUAL FRAMEWORK FOR ANTENATAL CARE DURING CORONAVIRUS.



METHODS

STUDY DESIGN

This study is exploratory, descriptive, and qualitative by nature. More specifically, the study aims to accumulate perception, opinion, and experiences of pregnant women regarding the impact of COVID-19 on seeking skilled ANC services. Such qualitative research helps the policy makers to understand social phenomena in a particular setting. [18]

RESEARCH SETTING

The research area is for rural settings of the Kushtia District, located in the South-Western part of Bangladesh. It lies between 23°42' and 24°12' north latitude and between 88°42' and 89°22' east longitudes. The total area of the district is 1621.15 km². The district consists of five sub-districts. The total population of the district is 2,018,000, representing about 1.4% of the country's total population. More than 75% of the people live in rural areas. [19]

Target Population and Sampling Technique

A total of ten villages was purposively selected taking two villages from each of the five sub-districts. Fifty pregnant

women were selected randomly for ten focus group discussions (FGDs), taking five from each village. Finally, four women did not take part in the FGDs for different reasons. Finally, forty-six women participated in the FGDs. Data were collected during the period May 01, 2021, to July 20, 2021. Each of the FGDs was consisted of 4-5 women and took times as lowest at 90 minutes and highest at 120 minutes.

Data Collection Method

Data were collected directly by the main author from ten FGDs. The family planning workers (FPWs) are the main informants who identified the pregnant women during their field visits. The study women were selected by the FSWs. The FPWs randomly selected the pregnant women and fixed a date and time for FGDs. They also screened to ensure whether the participants were pregnant at least for the last three months. Before the scheduled date of the interview, the researchers supplied personal protection equipment for all FPWs and participants. Prior to start discussions, the author described the study objectives in detail, and a written consent was taken from all participants. The participants were affirmed that all information they would provide should be kept confidential and be used only for research purposes. To gather personal information of the

participants, a semi-structured questionnaire was developed which included respondents' current age, age at marriage, number of living children, education, participant's occupation, monthly family income, duration of pregnancy and times they visited health facilities for ANC services. The descriptive statements of the participants were recorded by a digital voice recorder. The language used for interviews was 'Bangla' –the national language of Bangladesh. While recording, a code was used to identify the respondent.

Data Processing and Analysis

Open Code 4.0 software was used thematically to analyze the data collected from the ten FGDs. All audio records and notes were then transcribed and translated from Bangla to English. Transcripts were checked carefully and comprehended to obtain a good grasp of the information provided by the participants.

Ethical Considerations

Ethical clearance for this study was obtained from the Institutional Review Board (IRB) of Islamic University (IU), Kushtia-7003, Bangladesh (IU/ACA/SCFRC-0009/2020-2021).

Methodological Rigor

The rigor of a qualitative study measures the extent to which privacy of the participants represents, and to what extent the participants maintain reliability in providing information. The criteria for ensuring rigor include credibility, transferability, dependability, and conformability. To ensure the credibility, we have checked the accuracy of transcribed data and confirmed whether the participants shared their experiences honestly. To enhance transferability, a detailed description of the research setting and selection criteria of the participants is represented. Methods used for data collection, analyzing procedure, and interpretations are also captured for dependability. For conformability, field notes, audio recordings, and coding were kept de-identified.

RESULTS

The age of the women ranges from 19 to 41 years. Eleven women had no formal education, twenty-five had some primary education, nineteen women had secondary education, and only one had higher education. Except one woman, others were housewives. None of the participants visited four times for ANC checkup.

Perception towards COVID-19

Most of the participants had some knowledge about the danger of COVID-19. They believed that COVID-19 was like a viral fever at the initial stage of the pandemic. However, they are now more conscious of the pandemic.

"...we thought it was like a simple fever and can be relieved taking only simple medicine. However, when a dead body of our neighbor come to our village from the town, the government authority did not allow us to see his face even for the last time. Then we understood that Corona is a dangerous infectious disease." (FGD-3, Participant-3)

"Corona affects only the urban people because of overcrowding. We, the rural people, are free of Corona. We did not see any COVID-19 patients in our village till today. So we do not wear masks. This is the first time I have used the mask...and feeling uneasy." (FGD-8, Participant-4)

A participant reported that,

"Before lockdown, I went to the town for regular checkup of ANC. I wanted to take shelter in my elder sister's rented house. My brother-in-law was a COVID-19 patient and he was in isolation. My sister advised me to go away to village for safety and to follow previous advice that my doctor prescribed for me earlier." (FGD-1, Participant-4)

GOVERNMENT INITIATIVES AGAINST COVID-19

As a precaution, the Bangladesh Government has announced lockdown several times and also advised people to maintain social distancing and wearing mask compulsory while going outside of home for emergency.

"My husband asked an easy bike (a battery-driven small vehicle) driver to go to the town for me. The driver demanded fare three times more than the usual, which is not affordable for us as my husband's income has been decreased in these days. Now my fortune is up to God." (FGD-6, Participant-3)

"I am not accustomed to using a mask. When I use a mask, I feel uneasy and cannot breathe freely. It seems that my breath comes off and going to die. It is not possible for me to wait for a long time wearing a mask in doctor's chamber." (FGD-7, Participant-2)

"I do not like to go to town because of overcrowding. Moreover, free movement has been restricted by the authority. If I go to town, police may catch me and my husband. As evidence, I will not show my baby bump to others to prove that I am a pregnant woman. So all is up to God." (FGD-9, Participant-1)

Fear, Anxiety and Stigma

Several participants of the FGDs reported that they are worried about social distancing and social isolation following health facility visits.

"I went to a doctor due to influence of my husband. After coming back home, I noticed that my mother-in-law and sister-in-law do not come near to me, and even to my husband. When I asked them why they are doing such behave, my sister-in-law replied that I might be a carrier of Coronavirus." (FGD-10, Participant-4)

"...Hospitals and clinics are now hotspot areas. I heard that corona means death. Hence I have decided to endure my physical problem, but I would not go to the doctor to embrace premature death. My child (fetus) may also be affected by me." (FGD-4, Participant-2)

"If I be affected somehow, I would have to go for quarantine and live in an isolated room for many days. Who will then take care of my 3-years aged child at that time?" (FGD-2, Participant-1)

PERCEIVED QUALITY OF CARE DURING COVID-19

The pregnant women expressed their perception towards the quality of MHCs, including ANC, during COVID-19.

"At that time of my first visit, doctor asked me about many issues. But when I went to him for the second time, I observed hurry in him. He quickly asked me some questions and prescribed some medicines. They did not checkup my blood pressure and weight. I know that the measurement of these two is very important for a pregnant mother. If they do like this, what would be the ultimate result to go for ANC checkup?" (FGD-2, Participant-5)

One of the participants shared that,

"My doctor advised me for an ultra-sonogram. Some other pregnant women were waiting there. I heard that the authority of the clinic asked a technician from other clinic. I had to wait there for more than two hours. I observed that the technician did not use gloves and even nor hand sanitizer. I also noticed that some facial masks and tissue

papers were scattered away on the floor. ...who knows... there may have Corona or other viruses hidden in those garbage which may be harmful." (FGD-1, Participant-3)

"In these days, doctors and nurses are busy with Corona affected patients. They do not have enough time to provide adequate services to the pregnant mothers. Thus, how much will I be benefited going to hospitals for ANC checkups if doctors do not provide treatment properly and carefully with adequate information?" (FGD-8, Participant-4)

Risk minimization

Many of the FGD participants perceived that health care facilities are now potential sources of COVID-19. Overcrowding and the unclean environment of the facilities may be the main reasons behind it.

"I heard that hospitals are not neat and clean. In this pandemic situation, it is important to clean floors, chairs, and other materials used for treatment. If I go there, I may be infected through contacting that materials, and my baby (fetus) may also be infected with the virus." (FGD-9, Participant-2)

"Different types of patients come to doctors. We are not sure who are and who are not COVID-19 patients. If once I come into contact with such a Corona patient, I may be affected. Hence, I have decided to take treatment from a local Kabiraj (herbal medicine practitioners) rather than hospitals." (FGD-1, Participant-3)

"I heard that Corona has changed its pattern. The present pattern is more dangerous than it was one year ago. Visitation to a health facility may bring more jeopardy than benefits to my unborn child and even to my family members. Thus, it is better to stay at home." (FGD-3, Participant-5)

DISCUSSION

The perception towards the COVID-19 is found as somewhat mixed in the pregnant women of rural Bangladesh. While some women are quite afraid of the pandemic, others are a bit relaxed. Possibly, the lower educated women have little knowledge about the virus and danger. The fact is that, in Bangladesh, urban people have been more affected than those of rural areas. Moreover, rural women have little access to mass media – resulting in lower awareness among them regarding

COVID-19. A previous study reported that rural women of Bangladesh compared to their urban counterparts had significantly lower knowledge scores regarding COVID-19. [20]

Our study findings reveal that COVID-19 has largely disrupted health facility systems and provisions they generally offer to pregnant mothers for MHCs use. This has been echoed by the voice of a woman who expressed her dissatisfaction regarding the time she needed for her adequate checkup. Plausibly, the lack of sufficient medical personnel, including doctors, nurses, and technicians, is a significant reason behind it. Moreover, a large number of medical staff are shifted to manage the COVID-19 patients. Our findings are consistent with those conducted elsewhere. [12,21]

Decreased household income, increased living costs, and transportation unavailability has made it difficult for rural women to seek skilled MHCs, including ANC. Our findings corroborated those of a similar study on Ethiopian women. [12] Consistent with previous studies conducted in other developing countries [12,21,22] our study also shows that the government's restriction measures such as lockdown, obstruction of traffic, use of facial masks are vital factors to influencing pregnant women not to receive ANC services. These measures taken against COVID-19 are causing an unanticipated consequence on the utilization of skilled MHCs. [12]

Anxiety and stigma are other important factors that prohibits women from using skilled MHCs. This translates as that the rural community considers that a pregnant woman who visited a health facility during the pandemic period might have already been infected by COVID-19 and she may spread out the virus in the communities – resulting in inadequate use of MHCs. These causes are also reported elsewhere. [12]

In general, the participants in this study stated that they would have to be careful to avoid COVID-19 by maintaining social distancing and following other rules of health safety. Although some of the participants do not agree to go to the health facilities for ANC services since they have no complicity, some others stated that pregnancy is an important event and they need to take proper care for safe motherhood. The risky environment of the health facility, transportation problems, anxiety, and affordability costs are the most reported excuses to refrain from using ANC services.

STRENGTH AND LIMITATION

The study has several limitations and strengths. The study is entirely qualitative, and it was not possible to examine to what extent the factors influence the use of ANC services with a few participants. The strength is that, to our knowledge, this is the first ever qualitative study that explored the factors affecting ANC seeking among rural women in Bangladesh during the COVID-19 era.

CONCLUSION

The COVID-19 pandemic has had significantly negative effect on MHCs use by the rural women of Bangladesh. The measures taken by the government against the COVID-19 pandemic have significantly decreased the usage of MHCs. The need to shift the abruptly changing role of the health workforces in the health facilities is another factor that has a negative effect on women's attitude towards seeking MHCs. Anxiety, low quality of care, dirty and poor environment of the health facilities, stigma, and risk minimization strategy are among other factors that refrained pregnant women from seeking ANC services. The negative impact of COVID-19 on women's attitude towards the usage of MHCs may be minimized through providing health education by the FPWs since they have direct contact with married women in Bangladesh. Additional necessary health workforces are needed to be recruited urgently. A special wing for pregnant women in each health facility may be opened as a one-stop MHCs center for the COVID-19 period. The policymakers should take necessary actions to reduce anxiety among pregnant women and encourage them to use MHCs for safe motherhood.

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