DOI: https://doi.org/10.54393/pbmj.v6i11.963

PAKISTAN BIOMEDICAL JOURNAL
https://www.pakistanbmj.com/journal/index.php/pbmj/index
Volume 6, Issue 11 (November 2023)

Original Article

Barriers and Facilitators in Access and Use of Maternal Health Services During Covid-19 Pandemic at a Tertiary Care Hospital; A Cross-Sectional Study

Syeda Farheen Zehra Kazmi[1*], Humaira Mahmood[1], Muhammad Farrukh Habib[2], Jawaria Khan[1], Nimra Riaz[3], Sher Afgan Raisani[4] and Syed Ihtisham Kakakhel[5]

[1]Department of Public Health, Armed Forces Post Graduate Medical Institute, Rawalpindi Pakistan
[2]Department of Public Health, Al-Hamd University, Islamabad, Pakistan
[3]Kulsom International Hospital, Islamabad, Pakistan
[4]TB Control Programme, Quetta, Pakistan
[5]Bacha Khan Medical Complex, Swabi, Pakistan

ARTICLE INFO

Key Words:
Barriers, Facilitators, COVID-19 Pandemic, Maternal Health Services

How to Cite:
Kazmi, S. F. Z., Mahmood, H., Habib, M. F., Khan, J., Riaz, N., Raisani, S. A., & Kakakhel, S. I. (2023). Barriers and Facilitators in Access and Use of Maternal Health Services During Covid-19 Pandemic at a Tertiary Care Hospital; A Cross-Sectional Study : Use of Maternal Health Services During Covid-19 Pandemic. Pakistan BioMedical Journal, 6(11). https://doi.org/10.54393/pbmj.v6i11.963

***Corresponding Author:**
Syeda Farheen Zehra Kazmi
Department of Public Health, Armed Forces Post Graduate Medical Institute, Rawalpindi Pakistan
farheen.pharmacist110@gmail.com

Recevied Date: 26th October. 2023
Acceptance Date: 15th November, 2023
Published Date: 30th November, 2023

ABSTRACT

Maternal health being a global health priority emphasizes strongly on reduced maternal mortality rate, in a country. The delivery of maternal and child healthcare services in weak and vulnerable health systems has been severely impacted by the change in emphasis to contain the COVID-19 epidemic. **Objective:** To explore, identify and determine the barriers and facilitators in access to maternal health services during COVID-19 pandemic. **Methods:** Cross sectional study was conducted on all married women of reproductive age group who delivered in the pandemic season and visiting vaccination center of local tertiary care hospital between March 2020 to June 2021. Females were selected through convenience sampling technique. Data was collected through questionnaires, entered and analyzed in SPSS version 26.0 **Results:** Major barriers to accessing maternal health services by patients were fear of contracting COVID-19 at health facilities, lack of funds to pay for services at health facilities, transportation difficulties. Facilitators determined in this study includes Covid-19 non-pharmacological measures instituted at the health facilities, community sensitization on healthcare access during the pandemic and adaptive strategies to reduce waiting time at health facilities. **Conclusions:** The COVID-19 pandemic had a detrimental effect on access to maternal health care, in part because of difficulties brought on by travel restrictions and the incapacity of the health systems to create an environment that would encourage continued use of maternal health services.

INTRODUCTION

The COVID-19 epidemic has significantly altered daily living, which provides the public health sector with an unprecedented problem. The epidemic significantly worsened social and economic circumstances in the area, especially in Low- and Middle-Income Countries (LMICs) [1]. Being pregnant and giving birth are crucial stages in a woman's life since they include significant risks for both the mother and the baby [2]. The main cause of death and disability in underdeveloped nations is complications during pregnancy and labour [3]. Complications connected to pregnancy and delivery account for up to 75% of all maternal deaths [4]. A significant portion of maternal mortality is caused by delays in using maternal health treatments. First, second, and third maternal delays were noted in 6.3%, 50%, and 88.9%, respectively, of maternal deaths, according to a retrospective analysis [5]. The global community is attempting to stop the spread of COVID-19 and cut down on pandemic-related fatalities. However, the COVID-19 pandemic could significantly affect maternal health services, especially in low-income nations [6]. Evidence from prior pandemics demonstrates that death directly attributable to the pandemic may not always be as bad as mortality directly caused by the illness. Direct deaths from Ebola were outnumbered by indirect deaths connected to the outbreak, which included a decline in the utilisation of maternity and reproductive services, an

Copyright © 2023. PBMJ, Published by Crosslinks International Publishers
This work is licensed under a Creative Commons Attribution 4.0 International License.

DOI: https://doi.org/10.54393/pbmj.v6i11.963

increase in maternal and neonatal deaths, and stillbirths [7]. Women who are worried about getting COVID-19 may not seek care as frequently. Less critical services for women may be provided as a result of health care professionals who would typically be responding to COVID-19 being diverted[8]. The switch in production to COVID-19-related materials could disrupt global supply networks and machinery [9]. Additional maternal fatalities are anticipated as a result of this coverage drop [10]. The effects would be more pronounced in lower- and middle-income nations[11].
Therefore, the purpose of this study was to investigate barriers and facilitators and experiences on the delivery of maternal health services during the COVID-19 epidemic.

METHODS

The cross-sectional study was conducted in immunisation department of a local tertiary care facility in the CBR town of Islamabad, Al-khidmat, was the site of this investigation.50-bed private tertiary care facility in Islamabad, Raazi Hospital offers a wide range of surgical and medical treatments. High-quality healthcare is offered to the community by Raazi Hospital Islamabad, which is ideally situated within CBR Society Close to Soan Garden. October 2017 saw the founding of Al-khidmat with over 50 medical professionals and over 30 certified physicians with training both domestically and abroad, Raazi Hospital Islamabad is backed by cutting-edge technology to support its services and clinical experience in gynecology, cardiology, pediatrics, cancer, and neurology. Data was collected from vaccination center in Al-khidmat Raazi hospital CBR TOWN Islamabad in June and July 2021. All women were informed about the objectives of the study and were ensure anonymity. All signed informed consent for participation in study. A descriptive cross-sectional study which was conducted in Al-khidmat Raazi hospital is done in this thesis. Before the cross-sectional study could start, a number of ethical clearances were acquired, including approval from the data collection organization and the institutional review board (IRB). Participants were chosen using a simple non-probability convenience sampling method. There were a variety of factors taken into consideration when selecting the participants for the study. These factors included their availability and willingness to participate in the research. Assuming 36% as the prevalence of women who had at least 4 Ante natal care visits during pregnancy (PDHS 2013) with 5 % type 1 error, the sample size was calculated (at 95% confidence interval CI) to be at least 354. All married women of reproductive age group who delivered in the pandemic season i.e., from March 2020- June 2021 (having children of <1 year - 1.5 years) coming for vaccination of babies in Al-Khidmat Raazi hospital were eligible for participation. Women who have children of more than 1.5 years or older those who delivered before pandemic and those who didn't give proper consent were excluded. A structured questionnaire was administered, which included socio demographic data, pregnancy profiles of participants and various questions related to facilitators and barriers in access and use of maternal health services during pandemic along with ANC visits information and perceptions regarding Covid-19. Ethical clearance letter and support letter was obtained from Ethical Review Committee (ERC) of AFPGMI, Rawalpindi. Study participants were informed regarding the purpose of study & importance of study and filled the consent form prior to collecting data.

RESULTS

Three hundred and fifty-four (n=354) was calculated to be the sample size. Number of women who visited hospital for ANC and PNC were relatively less but we managed to agree available patients to take part in this study. Luckily, we achieved our required number of patients, which helped us a lot in compilation of comprehensive and enhanced results. The categorical variables were analyzed as numbers, frequency and percentages for all the women who participated in this study. Total number of samples are 354, 27.04% of the women were 25-year-old, 43.94% of women were 26-30 years of age, 23.38% of women were 31-35 years of age, and 5.63% of women were more than 35 years of age.5.4% women are illiterate, 11% are from primary education background, 29.3% are from high school educational background and 54.4% are from university educational background. 6.8% of their husband are illiterate, 12.4% are from primary background, 23.9% are from High school background, and 56.9% are from university background. 9.60% of women belongs to rural area, and 90.6% of women belongs to urban area. 0.30% of their husband are unemployed, 17.5% are from government sectors, 69.3% are from private sector, and 13% are labor. Monthly income of 17.5% of women is less than 25000, 34.6% of women earning 25000 – 50000 per months, 23.9% are earning 50000 – 75000, and 23.9% are earning more than 75000 per month. 26.2% women are from lower class family, 67.3% are from middle class family, and 6.5% are from upper class family. Sociodemographic characteristics can be seen in Table 1.

Table 1: Socio-demographic Characteristics

Characteristics	Frequency (%)
Mother's Age	
<25	96 (27.04%)
26-30	156 (43.94%)
31-35	83 (23.38%)
>35	19 (5.63%)

Copyright © 2023. PBMJ, Published by Crosslinks International Publishers
This work is licensed under a Creative Commons Attribution 4.0 International License.

DOI: https://doi.org/10.54393/pbmj.v6i11.963

Education Status	
Illiterate	19 (5.40%)
Primary	39 (11.00%)
High School	104 (29.30%)
University	192 (54.40 %)
Living Area	
Rural	34 (9.60%)
Urban	320 (90.60%)
Husband's Education Status	
Illiterate	24 (6.80%)
Primary	44 (12.40%)
High School	85 (23.90%)
University	201 (56.90%)
Husband's Occupation	
Unemployed	1 (0.30%)
Government Job	62 (17.50%)
Private Job/Business	246 (69.30%)
Labour	45 (13.00%)
Monthly Income	
<25000/month	62 (17.50%)
25000 – 50000 /monthly	123 (34.60%)
50000 – 75000 /monthly	85 (23.90%)
>75000/month	84 (23.90%)
Socio Economic Status	
Low	93 (26.20 %)
Moderate	238 (67.30%)
High	23 (6.50%)

Currently, 1.7% of women are pregnant, while 98.3% are not. 83.7% of women tested negative for COVID-19 during pregnancy, compared to 16.3% of women who tested positive. 5.4% women took their last delivery in march 2020 – Jun 2020, 23.1% took in July 2020 – October 2020, 34.6% took in November 2020 – February 2021, and 36.9% took their last delivery in March 2021 – Jun 2021.As far as ANC visits are concerned, 57% visited at least 4 times, 40% visited less than 4 times and 3% considered it as not applicable. 13% preferred maternity home, 14% preferred public hospital, 67% preferred private hospital and 4.8% preferred other places for delivery of their child. Regarding delivery mode, 56.9% of births are normal, 23.7% are scheduled caesarean sections, and 19.4% are emergency caesarean sections. "If you or your close ones are having corona virus symptoms, what will you do?" was the question we posed. In response, 83.1% said they would transport them to the hospital, while 16.9% ordered them to remain in isolation or quarantine.

DISCUSSION

The goal of the current study was to investigate, characterize and ascertain the obstacles and enablers to maternal health care during the COVID-19 epidemic in Islamabad, Pakistan. 47% of respondents were concerned that someone they knew might be infected but they were unaware of it, and 68.7% believed the pandemic was deadly. Women's access to maternal health care has been hampered as a result of socioeconomic issues. Akabaetal has identified different Socio-economic factors as barriers to access to maternal health services, which are duly aligned and vetted by research held in Nigeria [12]. During the lockdown, fear of catching COVID-19 at the institutions was a major obstacle to maternal health treatment. As per research held in South Sudan, Transportation and Long distance to health facilities emerged as a key barrier as identified by our study [13]. According to cross sectional survey conducted in Australia, women felt distressed and alone by no face-to-face meetings during COVID-19 and our data also identified this as a barrier. Most of our people generally believe face-to-face interaction is key for a medical checkup which was not there due toCovid-19 pandemic situation [14]. Due to issues with service delivery during the pandemic, a number of medical facilities arranged for patients' hospital visits and spaced-out ANC appointments. In some healthcare facilities, maternal health care, which was previously provided to service users in batches on specific days, is now provided on a rolling basis. Telemedicine is a facilitator for accessing and using maternal health services during COVID-19, as per a paper published in the Lancet, and it can be utilized to manage pregnancy-related problems [15]. Despite Covid-19 and various obstructions the percentage of women who visited healthcare facility for 4 or more ANC visits were 57% of total sample size and this data is supported by latestPDHS2017-18, data that indicate that approximately half of the women population 51% in previous 5 years have visited healthcare facility 4 or more times for adequate ANC with 71% for urban & 42% for rural population. Similarly, our data elaborated that only4.8% of our sample population preferred delivery at home or other places like that rest of the population preferred institutional delivery as stated in PDHS 2017-18, 94% women preferred institutional delivery in ICT area (PDHS2017-18) [16]. According to a study from Zimbabwe, favors the present study the statewide lockdown raised the likelihood of bad maternal and newborn outcomes while decreasing the use of maternal health services [17] The COVID-19 pandemic revealed similar challenges for service consumers and providers in terms of accessing and delivering mental health and social care (MNCH) services as it did for the Ebola virus outbreaks in three West African countries [18]. This study demonstrates how pandemics and disease outbreaks affect MNCH services in comparable ways. Thus, to sustain MNCH services during pandemics, concerted efforts are needed to address the aforementioned

Copyright © 2023. PBMJ, Published by Crosslinks International Publishers
This work is licensed under a Creative Commons Attribution 4.0 International License.

DOI: https://doi.org/10.54393/pbmj.v6i11.963

to sustain MNCH services during pandemics, concerted efforts are needed to address the aforementioned problems. The current study supports the study carried out during COVID-19 in Nigeria, which found that the primary barriers to using MNCH services were poor health professionals' attitudes, poor health-seeking behaviors, long wait times, and expensive health care expenses [19, 20].

CONCLUSIONS

The current study examines the COVID-19 pandemic's access to maternal health services, including the obstacles and enablers. Obstacles include things like a lack of health care facilities or transportation, particularly in rural areas. It is more practical to support interventions that aim to improve the technical skills of traditional birth attendants in low-income settings. Patients in this study reported additional barriers to receiving maternal health services, such as fear of contracting COVID-19 at medical facilities, insufficient funds to pay for services, transportation issues, a lack of personnel, lengthy wait times and a daily cap on the number of patients to be seen at the hospitals, unfavorable attitudes from healthcare professionals, harassment from security personnel, and stigmatization of service users by medical professionals.

Authors Contribution

Conceptualization: SFZK
Methodology: SFZK
Formal analysis: MFH, JK, NR
Writing, review and editing: SAR, SIK

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The author declares no conflict of interest.

Source of Funding

The author received no financial support for the research, authorship and/or publication of this article.

REFERENCES

[1] World Health Organization. The network for improving quality of care for maternal, newborn and child health: evolution, implementation and progress: 2017-2020 report. Last cited 16th Nov 2023. Available at: https://apps.who.int/iris/bitstream/handle/10665/343370/9789240023741-eng.pdf.

[2] Larkin P, Begley CM, Devane D. Women's experiences of labour and birth: an evolutionary concept analysis. Midwifery. 2009 Apr; 25(2): 49-59. doi: 10.1016/j.midw.2007.07.010.

[3] World Health Organization. The WHO application of ICD-10 to deaths during pregnancy, childbirth and puerperium: ICD-MM. World Health Organization; 2012. Last cited 16th Nov 2023. Available at: https://apps.who.int/iris/bitstream/handle/10665/70929/9789241548458_eng.pdf.

[4] Say L, Chou D, Gemmill A, Tunçalp Ö, Moller AB, Daniels J, et al., Global causes of maternal death: a WHO systematic analysis. The Lancet Global Health. 2014 Jun; 2(6): 323-33. doi: 10.1016/S2214-109X(14)70227-X.

[5] Mohammed MM, El Gelany S, Eladwy AR, Ali EI, Gadelrab MT, Ibrahim EM, et al., A ten years analysis of maternal deaths in a tertiary hospital using the three delays model. BMC Pregnancy and Childbirth. 2020 Dec; 20: 1-8. doi: 10.1186/s12884-020-03262-7.

[6] World Health Organization. COVID-19: operational guidance for maintaining essential health services during an outbreak: interim guidance, 25 March 2020. World Health Organization; 2020. Last cited 16th Nov 2023. Available at: https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/pt/grc-741053. doi: 10.15557/PiMR.2020.0004.

[7] Elston JW, Cartwright C, Ndumbi P, Wright J. The health impact of the 2014–15 Ebola outbreak. Public Health. 2017 Feb; 143(2): 60-70. doi: 10.1016/j.puhe.2016.10.020.

[8] Pant S, Koirala S, Subedi M. Access to maternal health services during COVID-19. Europasian Journal of Medical Sciences. 2020 Jul; 2(1): 46-50. doi: 10.46405/ejms.v2i2.110.

[9] Graham WJ, Afolabi B, Benova L, Campbell OM, Filippi V, Nakimuli A, et al., Protecting hard-won gains for mothers and newborns in low-income and middle-income countries in the face of COVID-19: call for a service safety net. BMJ Global Health. 2020 Jun; 5(6): 002754. doi: 10.1136/bmjgh-2020-002754.

[10] Calvello EJ, Skog AP, Tenner AG, Wallis LA. Applying the lessons of maternal mortality reduction to global emergency health. Bulletin of The World Health Organization. 2015; 93: 417-23. doi: 10.2471/BLT.14.146571.

[11] Bedford J, Enria D, Giesecke J, Heymann DL, Ihekweazu C, Kobinger G, et al., COVID-19: towards controlling of a pandemic. The lancet. 2020 Mar; 395(10229): 1015-8. doi: 10.1016/S0140-6736(20)30673-5.

[12] Akaba GO, Dirisu O, Okunade KS, Adams E, Ohioghame J, Obikeze OO, et al., Barriers and facilitators of access to maternal, newborn and child health services during the first wave of COVID-19

Copyright © 2023. PBMJ, Published by Crosslinks International Publishers
This work is licensed under a Creative Commons Attribution 4.0 International License.

DOI: https://doi.org/10.54393/pbmj.v6i11.963

pandemic in Nigeria: findings from a qualitative study. BMC Health Services Research. 2022 May; 22(1): 611-24. doi: 10.1186/s12913-022-07996-2.

[13] Wilunda C, Scanagatta C, Putoto G, Montalbetti F, Segafredo G, Takahashi R, et al., Barriers to utilisation of antenatal care services in South Sudan: a qualitative study in Rumbek North County. Reproductive Health. 2017 Dec; 14(1): 1-0. doi: 10.1186/s12978-017-0327-0.

[14] Bradfield Z, Wynter K, Hauck Y, Vasilevski V, Kuliukas L, Wilson AN, et al., Experiences of receiving and providing maternity care during the COVID-19 pandemic in Australia: a five-cohort cross-sectional comparison. PLOS ONE. 2021 Mar; 16(3): 0248488. doi: 10.1371/journal.pone.0248488.

[15 Reynolds RM. Telehealth in pregnancy. The Lancet Diabetes & Endocrinology. 2020 Jun; 8(6): 459-61. doi: 10.1016/S2213-8587(20)30158-3.

[16] Siddiqa M, Zubair A, Kamal A, Ijaz M, Abushal T. Prevalence and associated factors of stunting, wasting and underweight of children below five using quintile regression analysis (PDHS 2017-2018). Scientific Reports. 2022 Nov; 12(1): 20326. doi: 10.1038/s41598-022-24063-2.

[17] Bikwa Y, Murewanhema G, Kanyangarara M, Madziyire MG, Chirenje ZM. Impact of COVID-19 on maternal and perinatal outcomes in Harare, Zimbabwe: a comparative maternal audit. Journal of Global Health Reports. 2021 Nov; 5: 2021093. doi: 10.29392/001c.28995.

[18] Yerger P, Jalloh M, Coltart CEM, Karina K. Barriers to maternal health services during the Ebola outbreak in three West African countries: a literature review. BMJ Glob Health. 2020; 5: 002974. doi: 10.1136/bmjgh-2020-002974.

[19] Okonofua F, Ogu R, Agholor K, Okike O, Abdus-Salam R, Gana M, et al., WHARC WHO FMOH MNCH Implementation Research Study Team Eze Nwokocha Lorretta Ntoimo Oye Ekiti. Qualitative assessment of women's satisfaction with maternal health care in referral hospitals in Nigeria. Reproductive Health. 2017 Dec; 14: 1-8. doi: 10.1186/s12978-017-0305-6.

[20] Eke PC, Ossai EN, Eze II, Ogbonnaya LU. Exploring providers' perceived barriers to utilization of antenatal and delivery services in urban and rural communities of Ebonyi state, Nigeria: A qualitative study. PLOS ONE. 2021 May 20; 16(5): 0252024. doi: 10.1371/journal.pone.0252024.

Copyright © 2023. PBMJ, Published by Crosslinks International Publishers
This work is licensed under a Creative Commons Attribution 4.0 International License.