https://jrhm.org/

Journal of
Reproductive Healthcare
and Medicine

ISSRF
Indian Society for the Study of Reproduction & Fertility

Original Article

Impact of COVID-19 on abused pregnant and lactating women receiving reproductive and child health services at tertiary care hospital, New Delhi, India

Meerambika Mahapatro[1], Sudeshna Roy[1], Poonam Nayar[1], Suruchi Panchkaran[1], Ashwini Jadhav[1]

[1]National Institute of Health and Family Welfare (NIHFW), New Delhi, India.

***Corresponding author:**
Sudeshna Roy,
National Institute of Health and Family Welfare (NIHFW), New Delhi, India.

sudeshna.jnu@gmail.com

Received : 25 October 2022
Accepted : 17 November 2022
Published : 20 December 2022

DOI
10.25259/JRHM_23_2022

Quick Response Code:

ABSTRACT

Objectives: The worldwide healthcare system has been overwhelmed by the COVID-19 pandemic's emergence and increasing intensification. As a result, essential and routine reproductive child health (RCH) services have been severely harmed. The paper tries to find out the impact of COVID-19 on abused pregnant and lactating women receiving routine RCH services at a tertiary care hospital in New Delhi, India.

Material and Methods: It is an ethnography study undertaken with 150 abused pregnant and lactating women receiving RCH services at Lok Nayak Hospital, New Delhi. They were called and followed up with over the phone from March 23 to May 22, 2020. The findings revealed that there has been an increase in the incidences of domestic violence.

Results: The main reasons for difficulty reported by the women were inadequate information on changes in antenatal care at the hospital, lockdown restrictions on travel from one facility to another, a breakdown in communication with the healthcare team, and health system barriers. As a result, it exacerbated pregnant and lactating women's anxiety and distress. During the crisis, these negative consequences on pregnancy outcomes and maternal health must be taken into account immediately.

Conclusion: Instead of women seeking information and services, the health system can make normal public health services more accessible to women by offering proactive tailored information over the phone on where to go, when to go, what precautions to take, and so on. For better RCH services to women during pandemics, the government must design a health management system that balances routine care with emergency treatment.

Keywords: Domestic violence, COVID-19, Reproductive child health services, Tertiary care hospital, India

INTRODUCTION

The COVID-19 pandemic's rapid, dramatic onset, and progressive intensification have paralyzed and interrupted numerous normal healthcare services around the world.[1] Healthcare systems in low- and middle-income countries are overburdened and are projected to be severely strained.[2] Pandemic outbreaks in the past have hampered healthcare systems' ability to provide routine services, resulting in a drop in healthcare utilization.[3,4] The disease's outbreak poses a risk of increased mortality, both directly through virus transmission and indirectly from vaccine-preventable and curable illnesses.[1] There is a risk of an increase in the number of maternal and infant mortality due to cutbacks in regular health service coverage, as happened in the earlier Ebola and SARS epidemics.[3,5,6] Based on this, it is estimated that 12 million children will

die and 56,700 mothers will die in 118 countries if critical service coverage falls by 45% for 6 months.[1] According to Say *et al*.,[7], unsafe abortion causes 4.7%–13.2% of all maternal deaths each year.[7] The lockdown is predicted to result in 2.95 million unplanned pregnancies and 1.04 million unsafe abortions.[8] Due to the severe disruption of healthcare facilities, workforce, and resources[2] to address the COVID-19 emergency,[9] services connected to Reproductive and Child Health (RCH), particularly care during pregnancy and childbirth, have been severely harmed. The Reproductive Maternal Newborn Child Health (RMNCH) continuum of care (CoC) approach has made it a more effective[10,11] and a crucial component in lowering the global burden of baby and maternal deaths, especially in India.[12] Furthermore, human rights include access to healthcare and reproductive health.[13]

Due to pregnancy complications and complications during childbirth, India accounts for one-fourth of all maternal deaths in the world.[14] India aims to significantly reduce maternal and newborn mortality by 2030 as part of the Sustainable Development Goals.[15] Further, maternal health parameters such as four ANC visits and institutional deliveries are rather low, at 51%–80%, respectively.[16] The pandemic's cascading effect is not confined to treatment, but also includes rapidly rising domestic violence (DV). For women who are at risk of DV, social alienation leads to a complete breakdown of support ecosystems. Pregnant women who are also abused face a double threat to their health and well-being. Given that one in every three women worldwide has experienced intimate partner violence (IPV) during their lifetime,[17,18] there is a risk of an increase in IPV cases during the social upheaval caused by the pandemic.[19]

As the global incidence of DV has increased as a result of the lockdown, so it has the amount of information reported. IPV and DV have increased dramatically in countries such as the United States of America, Australia, the United Kingdom, Italy, Greece, Germany, and France. Even homicide instances linked to DV have risen to prominence.[17] Between March 23 and April 16, 2020, the National Commission of Women (NCW) of India reported a 48.2% increase in the number of complaints connected to gender-based violence (GBV).[20,21] However, in response to an increase in DV incidents during the lockdown, the Indian government and NCW have developed a new SMS hotline, in addition to online complaint connections, to boost the support network for women victims.[20] COVID-19's direct influence on pregnant women and newborns has been assessed using various statistical models.[22] Many women in Latin America, Africa, and other parts of the world were unable to access birth control or other sexual and reproductive health (SRH) services, resulting in unintended pregnancies and DV. Around 30% of women globally have been subjected to physical or sexual violence by an intimate partner, with rates as high as 37% in some places.[23]

Many routines and elective medical services, including RMNCH interventions, have been discontinued, postponed, delayed, or reduced in frequency.[4] In addition, mobile clinics have closed, HIV testing has been reduced, the response to GBV has been reduced, and contraceptive shortages have occurred.[24] COVID-19 will largely affect mothers and children by disrupting preventive support and supplies as a result of budgetary constraints, transportation disruptions, and health service disruptions.[15] In the midst of COVID-19, it is critical to examine how public hospitals are dealing with institutional deliveries and child immunization. During a pandemic, having access to a safe birth CoC for RMNCH, which includes regular screening tests for pregnant women, women in labor and delivery, and breastfeeding women, is critical.[2] The rapidly increasing demand caused by the COVID-19 outbreak has taken its toll on a densely populated country like India, particularly Delhi, with issues such as hospital bed shortages and uncertainty about treatment and prognosis.

The context and the problem

This article is a subset of a larger research study on abused pregnant women who visited Lok Nayak (LN) Hospital for routine ANC. It is one of New Delhi's most important tertiary care public hospitals. The abused pregnant women who participated in the study were recruited before the COVID-19 emergency. In response to the growing need for isolation beds, the LN facility began operating as a specialized COVID-19 hospital on April 4, 2020, with appropriate isolation rooms and beds. Women who went to the ANC clinic were referred to different hospitals. As a result, the LN Hospital's operations mirror those of other public health institutions. Because the current epidemic has affected all aspects of life, it is critical to look at the state of mother and child health. The paper aims to find out the impact of COVID-19 on abused pregnant and lactating women receiving routine RCH services at a tertiary care hospital in New Delhi, India.

MATERIAL AND METHODS

Domain 1: Research team and reflexivity

This work is part of a larger interventional research effort that began in October 2018 and is still ongoing. In 2018, the interventional study project recruited abused pregnant women based on inclusion and exclusion criteria. Five highly competent women researchers from several fields, including psychology, population and social geography, social medicine and community health, yoga, and anthropology, were involved in interacting with the women participants who had

experienced DV. Four of them have a Ph.D. and have worked in the community for 10–30 years. We realized that the age of the interviewer was an important factor in dealing with battered women. The group was made of people who were between the ages of 35 and 60. The researchers were given a 2-day training program to help them comprehend the study's goal, develop a common perspective, and commit to a 2-year involvement in the project. They were also exposed to how to use the tools and questionnaires, as well as the detailed methodology, to ensure that the data and responses are of high quality dispassionately.

The women participants who came to the public hospitals were married women between the ages of 18 and 35 years who belonged to the Hindu and Muslim religions and had a poor level of education and socioeconomic status. The participants were treated fairly and unbiasedly because the researchers were not from the hospital and had no prior relationship with them, instead meeting them for the 1st time. The researchers were successful in establishing rapport with the individuals and gaining their trust and confidence. One component of the intervention was to provide a space where individuals could receive empathy, care, respect, and support within the rushed, overcrowded, and impersonal hospital environment. This helped both the researcher and the participants gain trust and understanding of the phenomenon.

Domain 2: Study design

The ethnography method was used to gain an in-depth understanding of the participants' everyday environments and the social meanings associated with being part of a particular family culture. The participants were abused pregnant women receiving maternal health services at LN Hospital, New Delhi. Women up to 20 weeks pregnant who came to LN Hospital for ANC were screened for DV. This study included women who had delivered babies (including miscarriages, fetal deaths, and stillbirths) and had completed 6 weeks of postnatal care (PNC). The first milestone was to create a designated space with adequate seclusion where women could speak freely without being overheard by their accompanied relatives. The room was divided into sections by moveable dividers to ensure that all participants had their privacy. The space was kept clean, orderly, and well ventilated to provide a friendly and cheerful environment, including refreshment, in which the participants could relax and express their feelings. The assurance of providing culturally competent and empathetic care, guidance in resolving problems, as well as regular interactions, helped in building trust and confidence. Interviewing the participants in the midst of the unprecedented COVID-19-induced national lockdown was easy because the rapport had already been built.

A total of 150 women were contacted for follow-up. Although each woman's experience was unique, all of the women who had been recruited for the larger study were considered for this research. After receiving informed consent, the participants were recruited for the study. Nineteen abused pregnant women who were due to give birth in mid-April, 63 lactating mothers who had delivered before March 22, 2020, and 68 mothers with children older than 6 months who had access to child immunization services were among those interviewed. As a result, the participants were in various stages of pregnancy and lactation when we began the qualitative research. During the lockdown period, an open-ended schedule was developed focusing on the status of DV, stress and fear of contracting the coronavirus, barriers to receiving ANC, delivery, and PNC services, and problems encountered at home, such as access to essential goods and services, health, incidents of violence, and their coping strategies.

The interview was conducted with the participants between March 23 and May 22, 2020, during the first lockdown period. The interviews were conducted in Hindi, the participant's native language. Each participant's every word was meticulously documented. The participants' anonymity was maintained throughout the process. The women were called over the phone in a non-obtrusive manner, keeping their privacy at home in mind. It took a long time to reach most women because they did not have their own phones and shared their husbands'. Without danger of being interrupted or eavesdropped on, the women chose a convenient date and time to respond to the interview schedule. Apart from maintaining research ethics and standards, all of these precautions were necessary to ensure their safety. A small number of women with personal smartphones were also contacted through social media messaging apps. Spouses answered the phones and denied access to talk with the women in several cases; some denied their presence at home and many women were found to be in their native places before the lockdown. The phones were frequently found to be turned off, making the procedure of interviewing them time-consuming. The confidentiality of the women was preserved at all points.

An interview was carried out with each woman on the same set of questions regarding their barriers and challenges. In virtual communication, there were a few difficulties were found. Women were reluctant to answer questions about violence, which they deemed unimportant as opposed to their immediate concerns about food and money. Some women refused to answer questions over the phone, preferring instead to meet in person at the hospital. Each participant's file details were generated because they were followed up for roughly 5–7 months before the pandemic. As a result, no audio recording was required. Each woman came to the hospital for longer than their scheduled follow-up to interact with the research team before the pandemic. The majority of the time, they were told not to come since the study team needed to devote their time to other participants. They would frequently come to the room out of turn to exchange ideas

and seek additional assistance. Interaction, observation, body language, emotional shifts, tone changes, and other factors all contributed to a better understanding of their problems. This is how the responses are triangulated.

Domain 3: Analysis and findings

Using NVivo 12 software, the researcher organized and coded the data. Themes were identified in the data, the pilot tools, and secondary resources such as news articles and information about the ongoing public health issue caused by the COVID-19 epidemic. A few open-ended responses by the participants using pseudonyms (to protect the participants' identities) are presented in a descriptive format to supplement and complement the themes. Thematic analysis was used to examine the interview data. Two major themes were assessed, such as (i) Status of DV and (ii) barriers to access and utilization of health-care services during the lockdown. A three-point scale was used to determine whether the incidence and frequency of violent events among the women had increased, reduced, or stayed unchanged over the lockdown period. The type of violent occurrence was documented along with incidental details. Many subthemes were grouped and categorized under the second theme, including inadequate patient information, restrictions on movement from one hospital to another, communication breakdown with the healthcare team, healthcare system barriers, including increased uncertainty of health-care facilities, stress, and anxiety.

RESULTS

Status of DV

Amidst the lockdown, there is a rising trend of DV. The women were subjected to verbal abuse, physical violence, and psychological harm while secluded at home with the perpetrators under the same roof for extended periods of time with no social connectivity. Analysis shows that the level of DV has increased for 62.7% of women, remained the same for 28.1%, and 9.2% of women have never experienced violence. About 59.3% of women reported verbal abuse, 22.0% reported physical abuse, 3.3% reported sexual assault, and 15.4% reported no violence during the lockdown.

Women silently tolerate assaults within their homes and are exposed to dangerous consequences because they have nowhere to flee and limited mobility. Men's anger and frustration levels have been discovered to be higher, and the prohibition of alcohol and tobacco products (*gutka, bidi*) has resulted in withdrawal, hostility, and irritation between couples, which they invariably vent to the housewives. Due to the financial crisis, employment uncertainty, indebtedness, and an unclear future, nearly three-quarters of women reported increased violence. One woman, who is currently 9 months pregnant, had her hand burned by her husband, and she managed to flee to her parents' house. Further, men turn to coitus as a kind of leisurely enjoyment and bodily pleasure when they are ordered to stay indoors, have no meaningful paid labor to do, and their regular routines are disrupted. Around 46% of women expressed their concern over the phone that their parents from the last trimester till childbirth had been cancelled. *Devyanshi has been dealing with financial demands from her in-laws who have threatened to evict her if she does not comply. Nagma, a 23-year-old lactating mother, has disturbed sleep habits as a result of excessive work at home; she feels physically "fatigued and drained out the entire day."*

Access to and utilization of healthcare services during the lockdown

The following sub-themes emerged from the responses reported by the women on the barriers and problems they encountered in accessing health-care services.

Inadequate patient information in the outpatient department (OPD), labor room and emergency about changes in ANC care

As of April 4, 2020, the OPD services of LN hospital have been closed indefinitely until further notice. Information was displayed on banners on the site. The gynecological OPD was converted into a COVID-19 emergency ward overnight. Women who had been visiting for regular ANC check-ups at LN hospital were asked to transfer to other facilities in the area: GTB hospital, Kasturba Gandhi hospital, and the LN Trauma Center. Only pregnant women with COVID-19 were allowed in the emergency and labor rooms at LN Hospital. Many women had to walk precariously to nearby hospitals because there was no ambulance or public transport. As a result of the notification, the pregnant women were physically and mentally tired. In an emergency, doctors were prescribing medications over the phone, but most of the women were illiterate and could not understand. In our study, 27.8% of women said that they consulted a medical expert for postnatal care.

Lockdown restrictions on movement from one hospital to the other

The difficulty of locating new hospitals and getting there despite public transportation restrictions, being stopped by the police at various points, and familiarity with unfamiliar staff, and navigating the system to get adequate care became a daunting task in and of itself. When three respondents were in labor at LN Hospital, they had to rush to GTB Hospital. Another respondent had to give birth at home with the support of an accredited social healthcare worker since she could not go to LN Hospital due to the public transportation

shut down. Three of the high-risk pregnant women were told to arrange blood around the time of the expected due date, but they had no idea how to do so.

Communication breakdown with the health care team

The abrupt changes in administration and logistics caused a great deal of consternation. Only a few women (6%) reported receiving authentic information on ANC OPD services, indicating that there was no systematic dissemination of information to the patients. Confusion and wastage were bound to follow without a clear-cut standard set of instructions, either to the staff or to the women, regarding the logistic adjustments, adding to the load of both the women and the health-care team.

The women continually questioned anyone to check that they were on the proper track, further exasperating the hospital workers, who were often uninformed of the changed hospital regulations. Even when all of the information was accessible, it was difficult to communicate with the illiterate segment of the patients who were only familiar with the LN hospital, the changes in RCH-related institutional sites, and the schedule.

Health system barriers

Difficulty in routine ANC checkups

Childbirth and delivery have become more difficult as a result of several protocols that must be followed to prevent infection. During the interview, the women stated that the nursing staff informed them that half of the doctors were unavailable that the number of staff available for cesarean deliveries had been reduced to a bare minimum, and that pregnant women are advised not to visit the hospital unless an emergency arises. As a result, routine ANC, which is a critical component of CoC, is delayed. Women in their last trimester and on the verge of giving birth did not undergo regular ANC check-ups (such as routine ultrasounds and fetal monitoring), putting both mother and child at risk.

Immunization of children

Due to the impenetrability of the split of limited time and resources between COVID-19 work and schedule work, the routine, timely immunization coverage of newborn was jeopardized. More than 60% of lactating mothers said that their infants had missed their scheduled immunization. As a result, a newborn's health conditions could not be addressed properly. *Nida, and Shahjahan, two respondents, told us about their infants' diarrhea and pneumonia, respectively, and how they were able to barely recover their* newborns *with no medical advice from the hospital due to logistical obstacles.*

Postpartum checkups and family planning

Hysterectomy and intrauterine device insertion were considered improbable postpartum family planning options. Because recent mothers were involuntarily subjected to sexual abuse and unwanted motherhood during the lockdown, their health may suffer as a result. Five women in our study said that their partners forced them into frequent non-consensual sexual activity, which could lead to unwanted multiple pregnancies, low birth spacing, and poor maternal health in the future. A few women (four in total) in our study told us about the pain and discomfort they had with Copper T and after their laparoscopic procedures, and how they were unable to seek medical help. Due to COVID-19-related care, post-cesarean swellings in their sutures and other such health issues did not receive sufficient medical attention.

Stress and anxiety

This abrupt shift in protocols surrounding alternative health-care delivery methods caused psychological discomfort. The unexpected stoppage of maternal and child health (MCH) facilities created a panic among women. Pregnancy is stressful enough for the mother, and the COVID-19 scare has added to the anxiety and panic among expectant mothers who are concerned about their child's health as well as their own. Another factor that jeopardized health-care service uptake was the dissemination of misleading news through social media or word of mouth. Menstrual hygiene was also harmed for over 18.2% of women under PNC due to a lack of funds to purchase sanitary napkins. Due to difficulties in reaching a hospital to receive free healthcare, the pregnant women in our study, who are predominantly from lower socioeconomic strata, could not afford the out-of-pocket expenses of obtaining private medical treatment and diagnostic tests.

DISCUSSION

The data demonstrates COVID-19's direct and indirect effects on MCH, as well as the extreme steps used to combat it. Access to and utilization of health services has decreased due to a variety of factors, including disruptions in medical supply chains, a lack of human and financial resources, and a decrease in the uptake of health services by women who are afraid of infection. All of these issues are exacerbated by the fact that DV is on the rise, with 62.7% reporting an increase in abuse since the lockdown began on March 25, 2020. Men's levels of anger and irritation were higher, and alcoholism was a trigger for IPV.[25] The overburden of domestic chores and caregiving activities that pregnant women and new mothers were compelled to complete was undermined. The amount of domestic labor has increased now that all family members are locked away. Forced proximity has also resulted in more

instances of discontent, misconduct, and arguments, crossing the borders of the fragile spousal relationship and familial cohesiveness.

All RHC services were impeded, including family planning,[26] ANC, postpartum care, PNC, early childhood immunizations, early childhood preventive, and curative therapies. Childbirth and delivery have become more difficult as a result of the numerous administrative and preventive processes. The practice of allowing husbands into the labor room has been phased out, and women relatives were not permitted to visit the patient. Breastfeeding was not allowed right away if the mother had COVID-19 symptoms and the baby was maintained at a safe distance.[27,28] Pregnant women were advised to avoid going to the hospital unless there was an emergency. The COVID-19 scenario, along with doctors' uncertainty, caused a sense of uneasiness, which was cited by respondents as a major concern. Furthermore, newborn baby immunization coverage has been threatened. Health-care providers have become increasingly inaccessible, even with emergency care for newborns and PNC.[1]

Essential preventative and curative care and supplies have been severely harmed, putting mothers, and children at risk.[3,5] Women who are at a high risk of becoming pregnant should be treated as a priority, with additional attention paid to their fetal well-being and prompt access to SRH critical goods and services such as safe abortions and maternity care.[29] All medical institutions must begin setting aside emergency contingency funds to prepare for unforeseen events such as the current one. Due to difficulties in reaching the hospital to receive free healthcare, pregnant women from lower socioeconomic strata could not afford the out-of-pocket expenses of seeking private medical care and diagnostic testing, compromising treatment. Health services and routine RCH care must not be affected as a result of COVID-19. To reduce the risk of maternal and child mortality, healthcare and other crisis-prevention strategies must be reshaped, redesigned, and moulded through a gender lens.[17]

CONCLUSION

It is critical that support for women facing DV is strengthened as far as possible and that pregnant women are asked about mental health at every contact. There is an urgent need to take cognizance of these adverse effects on pregnancy outcomes and maternal health during the crisis. There is a need to strike a balance between the demands of responding directly to COVID-19 while simultaneously engaging in strategic planning and coordinated action to maintain essential health service delivery, mitigating the risk of outright system failure. Instead of women seeking information and searching for public services (in the absence of public transport due to COVID), the public health system can improve the ease of access to routine public health services by providing proactive personalized information over the phone on the location to visit, its timing, and precautions, one needs to take. Provision of safe spaces in a non-institutional setup, distribution of essential services to them at home, and adequate basic facilities, quick referrals for the rescued pregnant women must be readily available. This would entail developing a gender-responsive management strategy to address the unsettling health-related burdens caused at the time of crisis. The government needs to develop a health management system to balance between routine and emergency care for better RCH services for women during a pandemic.

DECLARATION

Ethical statement

Ethical Clearance has been obtained from IRB, National Institute of Health and Family Welfare (NIHFW), New Delhi and informed consent was obtained following ICMR, 2018 guidelines.

Author's contributions

MM: Conceptualization, designing the study, literature review, methodology, analysis, and writing. SR: Literature review, data collection, analysis, writing, and editing the paper. PN: Data collection, analysis, and writing. SP: Data collection. AJ: Data collection.

Acknowledgment

We acknowledge the support of Prof. Sudha Prasad and her team from Obstetrics and Gynecology department at LN Hospital to give the opportunity to carry out the project on the issue. We are thankful to ICMR for funding this project.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

Financial support and sponsorship

This work was supported by the Indian Council of Medical Research (ICMR), New Delhi.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Roberton T, Carter ED, Chou VB, Stegmuller AR, Jackson BD, Tam Y, *et al*. Early estimates of the indirect effects

of the COVID-19 pandemic on maternal and child mortality in low-income and middle-income countries: A modeling study. Lancet Glob Health 2020;8:e901-8.
2. UNFPA. Corona Virus Disease (Covid-19) Preparedness and Response. UNFPA Interim Technical Briefs. 2020. Available from: https://www.healtheducationresources.unesco.org/library/documents/coronavirus-disease-covid-19-preparedness-and-response-unfpa-interim-technical [Last accessed on 2020 Oct 11].
3. Wilhelm JA, Helleringer S. Utilization of non-Ebola health care services during Ebola outbreaks: A systematic review and metaanalysis. J Glob Health 2019;9:010406.
4. World Health Organization. Guiding Principles for Immunization Activities During the COVID-19 Pandemic. Interim Guidance. 2020. Available from: https://www.apps.who.int/iris/bitstream/handle/10665/331590/WHO-2019nCoVimmunization_services-2020.1-eng.pdf [Last accessed on 2020 May 01].
5. Abbas KM, Procter SR, van Zandvoort K, Clark A, Funk S, Mengistu T, *et al*. Benefit-Risk Analysis of Health Benefits of Routine Childhood Immunization Against the Excess Risk of SARS-CoV-2 Infections During the Covid-19 Pandemic in Africa; 2020. Available from: https://www.cmmid.github.io/topics/covid19/EPI-suspension.html [Last accessed on 2020 May 01].
6. Elston JW, Cartwright C, Ndumbi P, Wright J. The health impact of the 2014-15 Ebola outbreak. Public Health 2017;143:60-70.
7. Say L, Chou D, Gemmill A, Tunçalp Ö, Moller AB, Daniels J, *et al*. Global causes of maternal death: A WHO systematic analysis. Lancet Glob Health 2014;2:e323-33.
8. The Hindu. Coronavirus Lockdown. NGOs Warn of Spurt in Unwanted Pregnancies. 2020b. Available from: https://www.thehindu.com/news/national/ngos-warn-of-spurt-in-unwanted-pregnancies/article31552448.ece [Last accessed on 2020 Jul 17].
9. Economic Times. NCW Launches Whatsapp Number to Report Domestic Violence during COVID-19 Lockdown. 2020. Available from: https://www.economictimes.indiatimes.com/news/politics-and-nation/ncw-launches-whatsapp-number-to-report-domestic-violence-during-covid-1lockdown/articleshow/75082848.cms [Last accessed on 2020 Jul 18].
10. Schwartz DA, Graham AL. Potential maternal and infant outcomes from coronavirus 2019-nCoV (SARS-CoV-2) infecting pregnant women: Lessons from SARS, MERS, and other human coronavirus infections. Viruses 2020;12:194.
11. World Health Organization. The World Health Report 2005: Make Every Mother and Child Count. 2005. Geneva: World Health Organization. Available from: https://www.who.int/whr/2005/en [Last accessed on 2018 Aug 09].
12. World Health Organization. WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience. Geneva: World Health Organization. 2016. Available from: https://www.who.int/publications/i/item/9789241549912 [Last accessed on 2018 Aug 20].
13. Kerber KJ, De Graft-Johnson JE, Bhutta ZA, Okong P, Starrs A, Lawn JE. Continuum of care for maternal, newborn, and child health: From slogan to service delivery. Lancet 2007;370:1358-69.
14. Inter-American Commission on Human Rights (IACHR). Access to Maternal health services From a Human Rights Perspective. Washington D.C: OEA/Ser.L/V/II.Doc. 69 OAS Official Records; 2010.
15. United Nations International Children's Emergency Fund (UNICEF). Maternal Health in Focus: UNICEF India. 2019. Available from: https://www.unicef.org/india/what-we-do/maternal-health [Last accessed on 2020 May 30].
16. United Nations. The Sustainable Development Goals Report-2018. New York: United Nations; 2018.
17. Devries KM, Mak JY, Gracia-Moreno C, Petzold M, Child JC, Falder G, *et al*. Global health. The global prevalence of intimate partner violence against women. Science 2013;340:1527-8.
18. Mahapatro M. Domestic Violence and Health Care in India: Policy and Practice. Singapore: Springer Nature; 2018.
19. Peterman A, Potts A, O'Donnell M, Thompson K, Shah N, Oertelt-Prigione S, *et al*. Pandemics and Violence Against Women and Children. Center Global Development Work Paper 528, 2020.
20. The Hindu. Coronavirus Lockdown. India Witnesses Steep Rise in Crime Against Women, 587 Complaints Received, Says. New Delhi: NCW; 2020a. Available from: https://www.thehindu.com/news/national/india-witnesses-steep-rise-in-crime-against-women-amid-coronavirus-lockdown-587-complaints-received-ncw/article31369261.ece [Last accessed on 2020 Jul 17].
21. Deccan Herald. Domestic Violence on Rise in Lockdown Period. New Delhi: NCW; 2020. Available from: https://www.deccanherald.com/national/domestic-violence-on-rise-in-lockdown-period-ncw-826498.html [Last accessed on 2020 Jul 17].
22. Van Gelder N, Peterman A, Potts A, O'Donnell M, Thompson K, Shah N, *et al*. COVID-19: Reducing the risk of infection might increase the risk of intimate partner violence. EClinicalMedicine 2020;21:100348.
23. World Health Organization. London school of hygiene and tropical medicine, South African medical research council. In: Global and Regional Estimates of Violence Against Women: Prevalence and Health Effects of Intimate Partner Violence and Non-Partner Sexual Violence. Geneva: World Health Organization; 2013. p. 16-7.
24. International Institute for Population Sciences (IIPS). National Family Health Survey (NFHS-4), 2015-16: India. Mumbai: IIPS; 2017.
25. Catalá-Miñana A, Lila M, Oliver A, Vivo JM, Galiana L, Gracia E. Contextual factors related to alcohol abuse among intimate partner violence offenders. Subst Use Misuse 2017;52:294-302.
26. India Today. Lockdowns Mean Millions of Women Can't Reach Birth Control. 2020. Available from: https://www.indiatoday.in/world/story/coronavirus-lockdowns-mean-millions-women-cant-reach-birth-control-1665298-2020-04-10 [Last accessed on 2020 Jul 20].
27. Gribble K, Mathisen R, Ververs MT, Coutsoudis A. Mistakes from the HIV pandemic should inform the COVID-19 response for maternal and newborn care. Int Breastfeed J

2020;15:67.
28. UN. Policy Brief: The Impact of COVID-19 on Children. 2020. Available from: https://www.unsdg.un.org/sites/default/files/202004/160420_Covid_Children_Policy_Brief.pdf [Last accessed on 2020 Sep 15].
29. Busch-Hallen J, Walters D, Rowe S, Chowdhury A, Arabi A. Impact of Covid-19 in maternal and child health. Lancet Glob Health 2020;8:E1257.

How to cite this article: Mahapatro M, Roy S, Nayar P, Panchkaran S, Jadhav A. Impact of COVID-19 on abused pregnant and lactating women receiving reproductive and child health services at tertiary care hospital, New Delhi, India. J Reprod Healthc Med 2022;3:12.