

# Study on Changes in Contraceptive Behavior during COVID-19 Pandemic in a Tertiary Care Hospital of Jharkhand

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## ABSTRACT

**Background:** The COVID-19 pandemic had widespread impact namely lockdown, movement restrictions, and limited availability of services. This led to tremendous change in people's decision and changed behavior toward contraceptive access and usage. This study was conducted at Rajendra Institute of Health Sciences, Ranchi to assess the changes in contraceptive behavior during first wave of COVID-19 pandemic.

**Aims and objectives:** To study changes in contraceptive behavior during first wave of COVID-19 Pandemic in a Tertiary Care Hospital of Jharkhand and assess contraceptive preference and acceptance in women during COVID-19 pandemic.

**Results:** A total of 370 participants were included in this study. Participants from different age groups were found in this study ranging from <20 years to ≥40 years. Most respondents belonged to age group 30–39 years (43.24%). Respondents were mostly graduates 160 (43.24%). Yearly income of most respondents (43.24%) was approximately rupees 20,000–50,000. Non tribals were more in number in our study (70.27%) than tribal population (29.72%). Most respondents (59.45%) had lack of money to go to health facility, 29.72% faced lack of transportation, 21.62% had no companion to accompany them to facility, 18.91% reported that clinics had closed during lockdown and 16.21% feared that they would get COVID infection if they stepped out of their homes. There were respondents who despite lockdown tried to get contraceptive advise, but faced several challenges. Approximately 32.43% could not get prescription for an old method, 24.32% could not get DMPA injection, 21.62% could not get IUCD removed, 18.91% could not start a new method, and 16.21% could not get medical abortion when they wished.

**Conclusion:** Understanding the impact of the COVID-19 pandemic on contraceptive care experiences, use and decision making can lead to interventions in mitigating adverse effects on sexual and reproductive health outcomes. Also, contraceptive decision making should be choice of women solely and not influenced by family or male partner.

**Clinical significance:** COVID-19 pandemic was an eye opener for the entire world. It has made us think that contraceptive choices, availability, and healthcare of women in general takes a back seat whenever there are situations which disturb the infrastructure of the society and country in general. Hence, steps should be taken so that healthcare is not compromised at any situation, so that women are empowered to avail contraceptive and healthcare facilities without any barriers or challenges.

**Keywords:** Barriers, Challenges, Contraceptive, COVID-19, Pandemic.

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## INTRODUCTION

The COVID-19 pandemic had widespread impact namely lockdown, movement restrictions and limited availability of services.<sup>1</sup> This led to tremendous change in peoples decision and changed behavior toward contraceptive access and usage.<sup>2,3</sup> People who are socially compromised face all the more brunt of social and structural effects of COVID-19 on reproductive decision making.<sup>4,5</sup> COVID pandemic made hospitals and clinics focus on only critical services. Hence, contraceptive services and women's ability of contraceptive decision making had become difficult.<sup>6</sup> Pandemic also led to introduction of telemedicine service to bridge the gap of non-essential services like family planning and contraceptive advise.<sup>7–9</sup> Furthermore, women who experienced these same challenges, and who had their income decrease, were more likely to report more difficulty in accessing contraception during COVID-19. Similar gap in non-essential health services have been seen noticed during H1N1 influenza.<sup>10,11</sup>

There are limited studies on the impact of COVID-19 on access to contraception. Hence, this study was conducted at Rajendra Institute of Health Sciences, Ranchi to assess the changes in contraceptive behavior during first wave of COVID-19 pandemic.

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**Source of support:** Nil

**Conflict of interest:** None

## Aims and Objectives

1. To study changes in contraceptive behavior during first wave of COVID-19 pandemic in a Tertiary Care Hospital of Jharkhand.
2. To assess contraceptive preference and acceptance in women during COVID-19 pandemic.

## Methodology

1. **Study Design:** Cross-sectional Analytical Study.

2. **Study Place:** Telemedicine and Emergency Room, Obstetrics and Gynaecology Department, RIMS, Ranchi, Jharkhand.

3. **Study Population:** Married couple of reproductive age group.

4. **Sample Size:** Sample size required calculated according to the formula.

$$n = z^2 p(1-p) / e^2$$

where *n* = required sample size

*z* = confidence level at 95% (standard value of 1.96)

*p* = expected prevalence of contraceptive use according to NFHS 4 data (40.4%).<sup>12</sup>

*e* = margin of error at 5%

$$1.96 \times 1.96 \times 0.404 \times 0.596 / 0.05 \times 0.05 = 369.99 \text{ approx. } 370$$

So total sample size was taken to be 370.

5. **Sampling Method:** Pretested semi-structured questionnaire was used like socio-demographic profile, methods of contraceptives myths related to this, etc.

a. **Inclusion Criteria:** Married couple of reproductive age group (19–45) who are willing to participate.

b. **Exclusion Criteria:** Couples do not willing to participate in the study.

6. **Study Duration:** Total 6 Months (April 2021 to September 2021)

7. **Data Analysis:** The data were analyzed in SPSS VERSION 20. Data were expressed in percentages and proportions.

## RESULTS

A total of 370 participants were included in this study. Participants from different age groups were found in this study ranging from <20 to ≥40 years. Most respondents belonged to age group 30–39 years (43.24%), followed by 21–29 years (29.72%), <20 years (16.21%) and ≥40 years (10.81%) (Table 1).

Respondents were mostly graduates 160 (43.24%) followed by those with primary education 100 (27.02%), high school 70 (18.91%), and post graduates 40 (10.81%) (Table 1).

Yearly income of most respondents (43.24%) was approximately rupees 20,000–50,000. Non tribals were more in number in our study (70.27%) than tribal population (29.72%) (Table 1).

A total of 29.72% of respondents lost their jobs and 59.45% lost their income during the first wave of COVID-19 pandemic (Table 1).

Several barriers were identified to the assessment of and usage of contraceptives during the countrywide lockdown. Most respondents (59.45%) had lack of money to go to health facility, 29.72% faced lack of transportation, 21.62% had no companion to accompany them to facility, 18.91% reported that clinics had closed during lockdown, and 16.21% feared that they would get COVID infection if they stepped out of their homes (Table 2).

Contraceptive usage in our study reflected data from our Outpatients Department and Labor Room. The first wave of COVID-19 was roughly from March 2020. Hence, we saw a decline to gradual nil assessment of and usage of contraceptive services as reflected by our OPD data in the above table (Table 3). Few respondents could use condoms as it was available as over the counter medicine in small pharmacies (Table 3).

There were respondents who despite lockdown tried to get contraceptive advise, but faced several challenges. Approximately, 32.43% could not get prescription for an old method, 24.32% could not get DMPA injection, 21.62% could not get IUCD removed, 18.91%

**Table 1:** Socio demographic variables

Characteristics	Number (Frequency)
1. Age	
<20 years	60 (16.21%)
21–29 years	110 (29.72%)
30–39 years	160 (43.24%)
≥40 years	40 (10.81%)
2. Education	
Primary school	100 (27.02%)
High school	70 (18.91%)
Graduate	160 (43.24%)
Post graduate	40 (10.81%)
3. Yearly income	
<20,000 rupees	100 (27.02%)
20,000–50,000 rupees	160 (43.24%)
50,000–75,0000 rupees	70 (18.91%)
>75,000 rupees	40 (10.81%)
4. Ethnicity	
Tribal	110 (29.72%)
Non tribal	260 (70.27%)
5. Job loss during pandemic	110 (29.72%)
6. Income loss during pandemic	220 (59.45%)

**Table 2:** Barriers to assessment and usage of contraceptive

Barriers	Number (frequency)
1. Afraid to go to the clinic/facility due to fear of infection	60 (16.21%)
2. Closure of clinics/facilities	70 (18.91%)
3. Lack of transportation due to lockdown	110 (29.72%)
4. Lack of money to go to health facility	220 (59.45%)
5. Lack of companion to accompany to health facility	80 (21.62%)

**Table 3:** Modes of contraceptive used during COVID first wave and non-COVID times

Month	Cu-T	DMPA	Condom	Mala-N
July 2019	14	08	1120	129
August 2019	13	06	540	33
September 2019	07	07	620	30
October 2019	09	21	200	90
November 2019	20	11	800	60
December 2019	22	38	400	81
January 2020	17	25	320	174
February 2020	27	25	630	93
March 2020	9	3	560	7
April 2020	5	2	310	4
May 2020	Lockdown	Lockdown	12	Lockdown
June 2020	Lockdown	Lockdown	04	Lockdown
July 2020	Lockdown	Lockdown	30	Lockdown
August 2020	Lockdown	Lockdown	60	Lockdown

could not start a new method, and 16.21% could not get medical abortion when they wished (Table 4).

**Table 4:** Challenges among contraceptive users

Challenges	Number of respondents (percentage)
1. Could not start a new method	70 (18.91%)
2. Could not get prescription for old method	120 (32.43%)
3. Could not get DMPA injected	90 (24.32%)
4. Could not get IUCD removed	80 (21.62%)
5. Could not get medical abortion	60 (16.21%)

## DISCUSSION

COVID-19 pandemic came as a total shock to one and all. The healthcare system had to concentrate focus from non-essential services in order to provide emergency and essential medical aid alone.

For the public, it was confinement to homes due to strict lockdown regulations leading to assessment to only essential or emergency medical help, that too with much difficulty in the scenario of closure of several health facilities.

In the above situation, assessing contraceptive advise and methods was a distant dream. Patients suffered a lot in the first wave of COVID-19 as they had nowhere to go or no one to help them out as the medical fraternity was more than occupied in dealing with the pandemic.

Hence, this study was carried out at Rajendra Institute of Medical Sciences, from March 2020 to August 2020, during the first wave of COVID-19, to assess the changes in contraceptive behavior of ladies coming to our center.

A total of 370 participants were included in this study. Participants from different age groups were found in this study ranging from <20 years to ≥40 years. Most respondents belonged to age group 30–39 years (43.24%), followed by 21–29 years (29.72%), <20 years (16.21%) and ≥40 years (10.81%). The burden of family planning lies over female partner.<sup>13–17</sup> Higher age is a favorable factor for acceptance of contraception. In this study, most patients who sought contraception from 30 to 39 years (43.24%) which was in accordance to study by Kimport who had similar findings.<sup>18</sup> Our study age group was burdened with family responsibilities, most of them were working women who had dual roles as homemaker and bread earner, for whom contraception was an immense necessity.

In this study, most respondents were graduates 160 (43.24%) followed by those with primary education 100 (27.02%), high school 70 (18.91%), and post graduates 40 (10.81%). As per study by Bbaale it was found that the use of contraceptives increases with education level.<sup>19</sup> It was observed that more women with post-secondary education use any method (43.4%) and modern method (38%), respectively, compared to those with no education (12% use any method and 10% use modern method). Our findings were different which could be attributed to the level of vigilance and orientation to the acceptance of contraceptives and also to the cross section of respondents in our study.

Yearly income of most respondents (43.24%) was approximately rupees 20,000–50,000. Women's access to spending money, which may be an indicator of greater social positioning in the household, may also be greater among women who engage in income generating activities for their families, regardless of women's status in the household.<sup>20</sup> In our study, higher income groups were somewhat less with respect to usage of contraception.

In this study, 29.72% of respondents lost their jobs and 59.45% lost their income during the first wave of COVID-19 pandemic. Low-income groups seek contraceptive advise more than higher income groups. This may be attributed to the fear of getting infection if they stepped out and also to the cross section of study population. Also, low-income groups, would not prefer to increase their family size during pandemic with their constrained income.

Non tribals were more in number in our study (70.27%) than tribal population (29.72%) which may be attributed to the cross section of our study population and also to the lack of transport facilities which prevented tribal patients from assessing contraceptive advise.

Several barriers were identified to the assessment of and usage of contraceptives during the countrywide lockdown. Most respondents (59.45%) had lack of money to go to health facility, 29.72% faced lack of transportation, 21.62% had no companion to accompany them to facility, 18.91% reported that clinics had closed during lockdown and 16.21% feared that they would get COVID infection if they stepped out of their homes. These barriers led to several unwanted and unintended pregnancies which was supported in studies by Gemmill.<sup>21</sup>

Fear of going to the facility for reproductive health services during COVID-19 has been noted in some countries.<sup>22</sup> There were respondents who despite lockdown tried to get contraceptive advise, but faced several challenges. Approximately, 32.43% could not get prescription for an old method, 24.32% could not get DMPA injection, 21.62% could not get IUCD removed, 18.91% could not start a new method, and 16.21% could not get medical abortion when they wished.

COVID-19 increased burden of household responsibilities on women who had now to look after household expenses and their own careers.<sup>23</sup> This was a great challenge for women. On top of that even if someone desired contraceptive services she faced transportation difficulties or had no one to accompany her to health facility due to fear of COVID infection.<sup>24,25</sup>

The cross section of patients in our study and also those visiting our center mostly belong to low socioeconomic group. The most preferred form of contraception is barrier method which has minimal side effects (Table 3). This is followed by OCPS (Mala N which is in government supply). Injectable contraceptive (DMPA) and IUCD are the next preferable forms. Contraceptive choices are seen to be mostly dominated by the male partner as seen in our study population and also in the section of people visiting our tertiary care center. In the light of COVID-19 pandemic and subsequent closure of OPD at our center, in lieu of delivering only emergency and essential medical aid, contraceptive services sought at our center became nil. Only usage of barrier condoms continued, that too because it is an over-the-counter commodity freely available at small pharmacies also.

## Limitations

The study population may be an under estimate to the contraceptive usage since many women who were not able to come to our center or be a part of our study may have assessed to private practitioner to seek contraceptive advise.

## CONCLUSION

Understanding the impact of the COVID-19 pandemic on contraceptive care experiences, use and decision making can lead to interventions in mitigating adverse effects on sexual and

reproductive health outcomes. Also, contraceptive decision making should be choice of women solely and not influenced by family or male partner.

### Clinical Significance

COVID-19 pandemic was an eye opener for the entire world. It has made us think that contraceptive choices, availability and healthcare of women in general takes a back seat whenever there are situations which disturb the infrastructure of the society and country in general. In a developing nation like India, the common man strives to meet ends of the family. This gets aggravated in situations like pandemic where family income gets reduced. No one either has time or financial support to provide contraceptive aid or healthcare support to women. Hence, steps should be taken so that healthcare is not compromised at any situation, so that women are empowered to avail contraceptive and healthcare facilities without any barriers or challenges under all circumstances.

### REFERENCES

- Weigel G, Salganicoff A, Ranji U. Potential impacts of delaying "non-essential" reproductive health care. KFF 2020. Available from: <https://www.kff.org/report-section/potential-impacts-of-delaying-non-essential-reproductive-health-care-appendix/>.
- Kumar N. COVID 19 era: A beginning of upsurge in unwanted pregnancies, unmet need for contraception and other women related issues. *Eur J Contracept Reprod Health Care Off J Eur Soc Contracept* 2020;25(4):323–325. DOI: 10.1080/13625187.2020.1777398.
- Cohen MA, Powell AM, Coleman JS, et al. Special ambulatory gynecologic considerations in the era of coronavirus disease 2019 (COVID-19) and implications for future practice. *Am J Obstet Gynecol* 2020;223(3):372–378. DOI: 10.1016/j.ajog.2020.06.006.
- Abedi V, Olulana O, Avula V, et al. Racial, economic and health inequality and COVID-19 infection in the United States. *J Racial Ethn Health Disp* 2021;8(3):732–742. DOI: 10.1007/s40615-020-00833-4.
- Hooper MW, Nápoles AM, Pérez-Stable EJ. COVID-19 and racial/ethnic disparities. *JAMA* 2020;323(24):2466–2467. DOI: 10.1001/jama.2020.8598.
- Minkoff H. You don't have to be infected to suffer: COVID-19 and racial disparities in severe maternal morbidity and mortality. *Am J Perinatol* 2020;37(10):1052–1054. DOI: 10.1055/s-0040-1713852.
- Allsbrook JF. The Coronavirus crisis confirms that the U.S. health care system fails women. *Cent Am Prog* 2020. Available from: <https://www.americanprogress.org/wp-content/uploads/sites/2/2020/04/FieldsWomensHealth-brief.pdf>.
- Planned Parenthood. How do I get sexual health services during the COVID-19 pandemic? *Plan Parent* 2021. Available from: <https://www.plannedparenthood.org/about-us/newsroom/press-releases/were-here-with-you-organization-announces-telehealth-expansion-and-new-digital-resources-in-the-age-of-covid-19>.
- Frederiksen B, Gomez I, A look at online platforms for contraceptive and STI services during the COVID-19 pandemic. KFF2020. Available from: <https://www.kff.org/coronavirus-covid-19/issue-brief/a-look-at-online-platforms-for-contraceptive-and-sti-services-during-the-covid-19-pandemic/>.
- Lindberg LD, VandeVusse A, Mueller J, et al. Early impacts of the COVID-19 pandemic: Findings from the 2020 Guttmacher Survey of reproductive health experiences. Guttmacher Institute 2020. DOI: 10.1363/2020.31482.
- Bambra C, Riordan R, Ford J, et al. The COVID-19 pandemic and health inequalities. *J Epidemiol Commun Health* 2020;74(11):964–968. DOI: 10.1136/jech-2020-214401.
- Contraceptive prevalence among women Available at: [http://rchiips.org/nfhs/pdf/NFHS4/JH\\_FactSheet.pdf](http://rchiips.org/nfhs/pdf/NFHS4/JH_FactSheet.pdf).
- Fennell JL. Men bring condoms, women take pills: Men's and women's roles in contraceptive decision making. *Gender & Society* 2011;25(4):496–521. Available from: <https://www.jstor.org/stable/23044208>.
- Fields J. Risky lessons: Sex education and social inequality. Brunswick, NJ: Rutgers University Press. 2008. Available from: [https://books.google.co.in/books/about/Risky\\_lessons.html?id=cg4IAQAIAAJ&redir\\_esc=y](https://books.google.co.in/books/about/Risky_lessons.html?id=cg4IAQAIAAJ&redir_esc=y).
- Luker K. Dubious conceptions: The politics of teenage pregnancy. Cambridge, MA: Harvard University Press. 1996. Available from: <https://www.jstor.org/stable/190152>.
- Reich JA, Brindis CD. Conceiving risk and responsibility: A qualitative examination of men's experiences of unintended pregnancy and abortion. *International Journal of Men's Health* 2006;5(2):133–152. DOI: 10.3149/jmh.0502.133.
- Weber JB. Becoming teen fathers: Stories of teen pregnancy, responsibility, and masculinity. *Gender & Society* 2012;26(2):900–921. DOI: 10.1177/0891243212459074.
- Kimport K. More than a Physical Burden: Women's Emotional and Mental Work in Preventing Pregnancy. *J Sex Res* 2018;55(9):1096–1105. DOI: 10.1080/00224499.2017.1311834
- Bbaale E. Female Education, Contraceptive Use, and Fertility: Evidence from Uganda. *Consilience: The Journal of Sustainable Development* 2011;6(1):20–47. Available from: <https://www.jstor.org/stable/26167815>.
- Reed E, Donta B, Dasgupta A, et al. Matern Child Health J 2016; 20(6):1203–1210. DOI: 10.1007/s10995-016-1921-4.
- Gemmill A, Casey JA, Catalano R, et al. Changes in live births, preterm birth, low birth weight, and cesarean deliveries in the United States during the SARS-CoV-2 pandemic. *Paed Peri Epi* 2021;26(382): 2534–2543. DOI: 10.1111/ppe.12811.
- Aly J, Haeger KO, Christy AY, et al. Contraception access during the COVID-19 pandemic. *Contracept Reprod Med* 2020;5:17. DOI: 10.1186/s40834-020-00114-9. Available from: <https://contraceptionmedicine.biomedcentral.com/counter/pdf/10.1186/s40834-020-00114-9.pdf>.
- Kashen J, Glynn SJ, Am, Novello A. How COVID-19 sent women's workforce progress backward. *Cent Am Prog* n.d.
- Malhotra J, Agrawal P, Garg R, et al. Corona virus disease (COVID-19) and pregnancy: What obstetricians should know. *J South Asian Feder Obst Gynae* 2019;11(6):337–339. DOI: 10.5005/jp-journals-10006-1744.
- Garg R, Lal P, Agrawal P, et al. Menstrual cycle changes after COVID-19 infection: Does coronavirus-induced stress lead to hormonal change? *J South Asian Feder Obst Gynae* 2022;14(3):248–252. DOI: 10.5005/jp-journals-10006-2027.