

Impact of COVID-19 on the prescription of contraceptives in a city in São Paulo

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SUMMARY

OBJECTIVE: In the beginning of the pandemic, measures, such as social distancing, lockdown strategies, and restrictions on mobility, as well as the fear of transiting through health facilities, raised concerns about the impact of COVID-19 on women's ability to continue using contraceptives.

METHODS: This is a retrospective cohort study, which evaluated reports of medication distribution spreadsheets in Bauru – SP, from January 2019 to June 2021.

RESULTS: Our study showed that the municipal dispensation of contraceptives in the SUS was markedly impacted by the COVID-19 pandemic, suffering reductions that can impact on an increase in unplanned pregnancy rates. It is possible to note a significant decrease in the distribution of combined oral contraceptives (44.18%), combined injectable contraceptives (47.58% reduction), and medroxyprogesterone acetate (13.98%). This fact may be associated with the reduction in offers of face-to-face consultations in gynecology, due to the social isolation necessary at the time of the pandemic.

CONCLUSION: Ensuring access to contraceptives during health emergencies should be a public health policy priority. Thus, it is essential to draw up strategic plans to encourage full access to reproductive planning services even in times of health emergency, so that the occurrence of unplanned pregnancies can be adequately prevented.

KEYWORDS: COVID-19. Contraception. Public health.

INTRODUCTION

In January 2020, the World Health Organization (WHO) declared the SARS-CoV-2 outbreak as a public health emergency of international concern, having declared the situation a worldwide pandemic on March 11, 2020¹. Brazil registered its first case of COVID-19 in February 2020, with more than 663,000 deaths in the country resulting from this infection so far². In this war against an invisible and potentially fatal enemy, many countries have had to make difficult decisions to balance the demands of trying to contain the spread and contagion of COVID-19 while simultaneously planning in a coordinated way to maintain the delivery of essential health services. Governmental and private organizations in many parts of the world have had to suspend many routine and elective services in their quest to control the pandemic³.

In the beginning of the pandemic, measures, such as social distancing, lockdown strategies, and restrictions on mobility, as well as the fear of transiting through health facilities, raised concerns about women's ability to continue using contraceptives. Global production and disrupted supply chains, as well as over-stretched healthcare facilities, also threatened to reduce the availability of family planning supplies and services. Infectious outbreaks, as reported in previous epidemic situations, can have the potential to devastate family planning programs⁴. Since patients

are confined and healthcare workers are at risk of infection⁵, it would be expected to note a reduction in the supply of health services and care to the population. The United Nations Population Fund (UNFPA) estimates that 12 million women had their contraceptive methods interrupted or discontinued in this period, leading to 1.4 million unplanned pregnancies worldwide⁶.

In Brazil, the health system is organized according to the complexity of services and procedures, seeking universal access, equity, and equality⁷. The right to family planning is guaranteed in the Brazilian Federal Constitution (Law No. 9,263 of 1996). Everyone has the right to information, specialized assistance, and access to contraceptive methods. Choosing the most suitable contraceptive method is an option that every woman should have. Providing free contraceptives and promoting the most effective contraceptive methods reduce unwanted pregnancies⁸. Women who experience an unplanned pregnancy may in fact represent greater health costs than those who plan to become pregnant. In Brazil, in 2014, it was estimated that the costs and outcomes associated with an unwanted pregnancy would result in a cost of R\$ 2,293 per unwanted pregnancy⁹. Sexual and reproductive rights (SRH) are a significant public health issue and must be a priority. It is essential for the scientific community to build clinical, epidemiological, psychosocial, and behavioral links between COVID-19 and SRH¹⁰.

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Therefore, in addition to the clinical scope of the disease caused by SARS-CoV-2, we must not neglect the impact of COVID-19 on sexual and reproductive health¹⁰. Thus, evaluating the impact of the pandemic on the prescription and distribution of contraceptives is essential so that strategies can be devised to prevent unplanned pregnancies.

METHODS

This is a retrospective cohort study, which evaluated reports of medication distribution spreadsheets from the pharmacies of the Basic Health Units in Bauru – SP, from January 2019 to June 2021. The product dispensing data were compiled in Excel tables and condensed for further analysis. The article was approved by the local ethics committee (CAAE 50011921.9.0000.5417).

RESULTS

Our study analyzed the number of units dispensed and the type of contraceptives (combined oral contraceptives, monthly injectable contraceptives, quarterly injectable contraceptives, progestogen-only oral contraceptives, and copper IUD) distributed by municipal pharmacies, comparing data obtained from January 2019 to February 2020 (before the advent of the pandemic in Brazil), with data obtained between March 2020 and June 2021, as shown in Table 1.

DISCUSSION

In the beginning of the pandemic, WHO published guidelines suggesting that women who were well adapted to their contraceptive methods should maintain their use. In addition, it sought to encourage the use of long-acting reversible contraceptives (LARCs) (even beyond the labeling period, according

Table 1. Monthly distribution of contraceptives by pharmacies of SUS health units in Bauru.

Contraceptive	AMC (01/2019 to 02/2020)	AMC (03/2020 to 06/2021)	Variation (%)
Cooper IUD 380A	16	23	+43.75
MPA 150 mg/mL	565	486	-13.98
LNG 0.15 mg/ EE 0.03 mg	740	413	-44.18
VE 5 mg/NETA 10 mg	435	228	-47.58
NETA 0.35 mg	25	65	+160

AMC: average monthly consumption; DIU: dispositivo intrauterino de cobre; MPA: medroxyprogesterone acetate; LNG: levonorgestrel; EE: etinylestradiol; EV: estradiol valerate; NETA: norethisterone acetate.

to safety studies in extended use) and the use of telemedicine for contraceptive counseling, allowing more people to have access to family planning guidelines, despite the social isolation measures¹¹. Despite being a necessary measure in controlling the spread of the pandemic, isolation guidance as a measure to control the transmission of the SARS-CoV-2 virus has a huge impact on unmet needs for family planning: the United Nations health agency estimated that every three months of lockdown worldwide could lead to 2 million more women losing access to modern methods⁶. The COVID-19 pandemic has brought the Brazilian healthcare system to a halt, and as many family planning clinics and clinics have been temporarily closed, sales and distributions of most modern contraceptives have plummeted¹².

Since there is an important risk of increasing unplanned pregnancies during the COVID-19 pandemic, there have been movements to encourage women, health professionals, policy makers, and the whole society to discuss reproductive planning and contraception services as a priority service¹³. Ensuring access to contraceptives during health emergencies should be a public health policy priority. However, some researchers have shown that many people had access to reproductive counseling services during the lockdown period; however, some specific population groups, such as young people and the vulnerable population, reported difficulties in accessing services^{14,15}. Such groups, in this case, are among those with the highest demand for contraceptives.

The COVID-19 pandemic had a strong impact on contraceptive dispensing in several scenarios other than Brazil, with varying degrees of reduced dispensing according to the type of contraceptive, age group, and the level of restrictions related to the pandemic. When evaluating the data from our study, it is possible to note a significant decrease in the distribution of combined oral contraceptives (44.18%), combined injectable contraceptives (47.58% reduction), and medroxyprogesterone acetate (13.98%). This fact may be associated with the reduction in offers of face-to-face consultations in gynecology, due to the social isolation necessary at the time of the pandemic. Other international studies also showed these same trends, such as a French study that showed a 2% reduction in the dispensing of oral contraceptives during the lockdown period, with prescriptions for the use of long-term contraceptives and women under 25 years of age being the most impacted¹⁶. This behavior was also observed in a South African study that reported reduced use of LARCs during the first 5 weeks of social isolation¹⁷. On the other hand, contrary to these South African data, we observed in our results that there was an increase in the use of copper IUDs (an increase of 43.75%). Taking into account that in a single face-to-face consultation, it is possible to carry out contraceptive guidance and IUD insertion and that this

method has high contraceptive efficacy and long action, we can say that this increase can greatly contribute to the reduction of unplanned pregnancy rates in this population.

It was observed that there was a 160% increase in the dispensing of progestogen-only contraceptives (norethisterone) during the period evaluated. However, this fact can be explained by the removal of desogestrel from the dispensation line of health units in the same period, which was replaced by norethisterone.

Despite these increases, when comparing pre- and post-pandemic data in a unified way, a total reduction of 31.77% in the dispensing of contraceptives by the units studied was found. It should also be noted that one of the possible causes for the 160% increase in the use of progestogen-only oral contraceptives (norethisterone 0.35 mg) is the recent de-standardization of another type of progestogen-only oral contraceptive (desogestrel 0.075 mg), which was taken from the pharmacies of these health units. Therefore, in view of this general context, it is possible to infer that the COVID-19 pandemic negatively affected the distribution of contraceptives in the municipality of Bauru. This fact may, in the future, impact the rates of unplanned pregnancies in the region. During the COVID-19 pandemic, the estimated reduction in contraceptive use in low-income countries was substantial^{18,19}.

The impact of these restrictions on unwanted pregnancy at a population level remains undetermined¹⁶. However, the negative effects seem to be more evident in low- and middle-income countries and among low-income people^{17,20,21}.

In Brazil, the prevalence of modern contraceptive methods is 75–80% among women of reproductive age^{9,22}. Furthermore, 74% of the population depends on the national health service (Sistema Único de Saúde) as their main source of care, including the provision of free contraception²³. The Brazilian health system provides its users free of charge only with female and male condoms, combined oral contraceptives, a progestogen-only pill (norethisterone 0.35 mg), monthly and quarterly injectables, and a copper IUD. Access to contraceptives in the private sector may indicate inequalities in their supply and distribution, evidencing growth in sales of contraceptives not provided free of charge¹².

Reproductive choice is one of the most fundamental human rights, and contraception represents a big step toward greater gender equality²⁴. In addition to the impact on life-style changes and women's mortality, unplanned pregnancy also imposes costs. The National Commission Specialized in Contraception of the Brazilian Federation of Gynecology and Obstetrics (FEBRASGO) recommends that women who request new contraceptive methods be guided by face-to-face medical consultation or, when available, by telemedicine, for the use of effective contraceptive methods, in addition to a

condom. In addition, it suggests that those efforts should be directed toward the continued use of methods already chosen by women, through active screening of users and provision of contraceptives by health professionals. Since the provision of LARCs as well as the scheduling of sterilization surgery methods have been delayed during the pandemic, highly effective self-administered methods can be offered meantime²⁵.

As strengths of this study, we have that it is an unprecedented regional assessment, with assessment of indirect measures of the impact of the pandemic on the attention to family planning and reproductive services. The main limitations of this study are as follows: data are scarce and only represent the reality of the municipal population that uses the SUS, not including data on the dispensing of contraceptive products purchased in private health services. In addition, when evaluating general data from pharmaceutical units, it is not possible to characterize the population that benefited from such contraceptives, as the data are not linked to users. Data referring to definitive sterilization procedures, such as tubal ligation and vasectomy surgeries, were not evaluated in this study. However, it is expected that, if there has been any change in the rates of performance of these surgeries, it will be in the sense of reducing procedures, given that non-emergency surgical procedures were largely reduced during the most critical periods of the COVID-19 pandemic.

CONCLUSION

Our study showed that the municipal dispensation of contraceptives in the SUS was markedly impacted by the COVID-19 pandemic, suffering reductions that can impact an increase in unplanned pregnancy rates. Ensuring access to contraceptives during health emergencies should be a public health policy priority. Thus, it is essential to draw up strategic plans to encourage full access to reproductive planning services even in times of health emergency, so that the occurrence of unplanned pregnancies can be adequately prevented.

AUTHORS' CONTRIBUTIONS

MNN: Conceptualization, Data curation, Formal Analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – review & editing. **ELD:** Conceptualization, Data curation, Formal Analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Visualization, Writing – review & editing. **JT:** Conceptualization, Funding acquisition, Investigation, Methodology, Resources, Software, Supervision, Visualization, Writing – original draft.

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