

Contraceptive Usage and Social Barriers During The Covid-19 Pandemic—a Prospective Cross-sectional Study

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ABSTRACT

Objective: To determine the frequency of contraceptive usage, the social barriers affecting their use, and the frequency of unplanned pregnancies during the COVID-19 pandemic

Methodology: This is a prospective cross-sectional study carried out at the Department of Obstetrics and Gynaecology, Fazaia Ruth Pfau Medical College & PAF Hospitals from July 2020 to September 2020. All women of reproductive age attending the outpatient department were consecutively included. A pre-structured questionnaire was used for the purpose of collection of data. We obtained information regarding the use of contraception before and during the COVID-19 pandemic and the contraception methods used by these women. Furthermore, reasons for discontinuing contraception amongst those women who were using it earlier. The occurrence of pregnancy during pandemic was also noted.

Results: Of the 350 women, 306 (87.4%) women practiced contraception before and 288 (82.3%) practiced it during the lockdown. Of 306 women practicing contraception before the lockdown, 265 (86.6%) continued practicing during the lockdown as well. Condom 145 (50.3%) and withdrawal method 116 (40.3%) were the most used methods amongst the 288 women practicing contraception during the lockdown. The noticeable increase in the number of those using withdrawal method was due to the lack of consultation following the fear of getting COVID (17 women, 41.5%) and no access to the clinic (14 women, 34.1%). These were the most common reasons for not using contraception, amongst the 41 women practicing contraception before the pandemic. Pregnancies were reported by 93 (26.6%) women out of whom 75 (80.6%) reported these to have been unplanned.

Conclusion: The COVID pandemic has largely affected the utilization of contraceptives among women who were already practicing different contraceptive methods. Moreover, unplanned pregnancies are increasingly reported by women.

Keywords: Contraception, covid-19 pandemic, unplanned pregnancies

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INTRODUCTION

Contraception use and its easy access remains a problem in low and middle income countries^{1,2}. Published studies report that despite lots of efforts, half of teen pregnancies in underdeveloped countries are unintended, contributing to four million unsafe teen abortions each year³. Furthermore, according to an estimate, Pakistan's population will swell up to 245

million by 2030, making it the fourth most populous nation in the world⁴. According to a recent study from the Pakistan Demographic and Health Survey (PDHS), only 34% of married women are using a contraceptive method⁵. These estimates were reported before the occurrence of the coronavirus (COVID-19) pandemic, which has paralyzed human life for more than a year now.

There is no doubt that lockdown and movement control orders in response to COVID-19 in various countries, particularly in lower- and middle-income countries, have brought major disruptions, not only in the supply of contraceptives but in their utilization as well^{6,7}. Delays in the production and delivery of contraceptives at global and national levels has led to shortages of supplies, affecting their utilization. In addition to this,

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not accessing healthcare providers, fear of going outdoors during the outbreak, and movement control orders are some other possible reasons that have affected the utilization of contraceptives during the pandemic^{7,8}. Understanding the factors lowering the utilization of contraceptives during the pandemic is of utmost importance for the government and healthcare providers to effectively deal with a similar situation in the future. Since the world has never seen a situation like this in many decades, published literature on this topic is scarce. This study is therefore planned to find out the frequency of contraceptive usage, the social barriers affecting their utilization, and the higher rate of unplanned pregnancies reported during COVID-19 pandemic.

METHODOLOGY

This prospective cross-sectional study was conducted at the Department of Obstetrics and Gynaecology, Fazaia Ruth Pfau Medical College & PAF Hospitals from July to September, 2020. Ethical approval was obtained from Fazaia Ruth Pfau Medical College Karachi, with Reference No. IRB/04. The institute prior to the conducting of the study. Moreover, signed Informed Consent was also obtained from the eligible study participants before enrolment.

All married women, either non- pregnant or pregnant up to 20 weeks of gestation, who presented in the outpatient department, were included in the study after giving informed consent. However, women of more than 45 years of age and known cases of infertility were excluded from the study to mitigate the confounding variables. The questionnaire was filled by health care personnel after interviewing the patient during the study period.

Epi Info sample size calculator was used for the estimation of sample size, taking confidence interval 97%, margin of error 5.4%, and reported frequency of disruption in contraception use during pandemic in a previous study at 68.3%⁶. The estimated sample size came out to be 350.

A pre-structured questionnaire was used for the purpose of collection of data. The questionnaire was divided into four sections. The first section asked for the demographic characteristics of the participants. The second section included questions regarding the use of contraceptives before and during COVID-19 pandemic and the methods used for contraception among those who were practicing. The third section included questions regarding the reasons of not using contraceptives during pandemic lockdown among women who were practicing contraception earlier. The

last section covered pregnancy status and its outcome in terms of termination or continuation.

Statistical analysis was performed using SPSS version 24. Descriptive analyses were explored using mean \pm SD for quantitative variables and frequency and percentages for qualitative variables. Inferential statistics were explored using independent t-test and chi-square test. The p-value of <0.05 was considered significant.

RESULTS

The mean age of the 350 women was 30.29 ± 5.24 years (minimum 18 and maximum 45 years). Majority of the women’s educational status was less than or equal to matriculation 196 (56.0%), followed by illiterate 83 (23.7%), and more than or equal to intermediate 71 (20.3%). Furthermore, multiparity was observed in most of the women 247 (70.6%), followed by grand multiparity in 55 (15.7%), and primiparity in 48 (13.7%) women.

There were 306 (87.4%) women practicing contraception before the lockdown and 288 (82.3%) practiced during the lockdown.

Of 306 women practicing contraception before the lockdown, 265 (86.6%) continued while 41 discontinued during the lockdown. There were 23 new users.

Of 306 women practicing contraception before the lockdown, most of the women were using condoms 149 (48.7%), followed by combined oral contraceptives 67 (22.0%), long acting reversible contraception 66 (21.6%), and withdrawal method 24 (7.8%) (Figure 1).

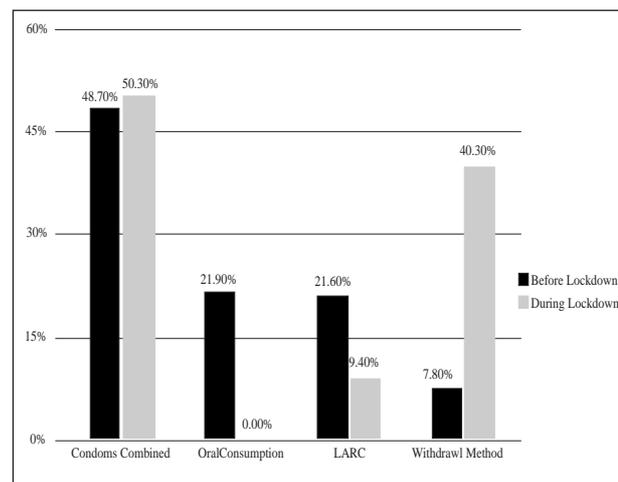


Figure 1: Method of Contraception Practiced by Women Before and During Lockdown

Lack of consultation due to fear of COVID and no access to clinic were the most common reasons of not

using contraception among 41 women who were practicing contraception before, i.e., 17 (41.5%) and 14 (34.1%) respectively (Figure 2).

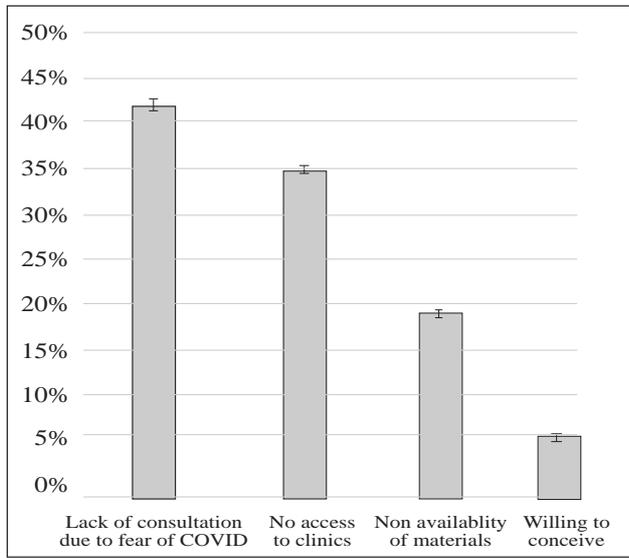


Figure 2: Reason for Not Using Contraception During Lockdown Among Women who Practiced Before (n=41)

Pregnancies were reported by 93 (26.6%) women. Of these 93 pregnant women, 75 (80.6%) had unplanned pregnancies and 18 (19.4%) had planned pregnancies. Out of the 75 women with unplanned pregnancies, 65 (86.7%) had used contraceptives (Figure 3).

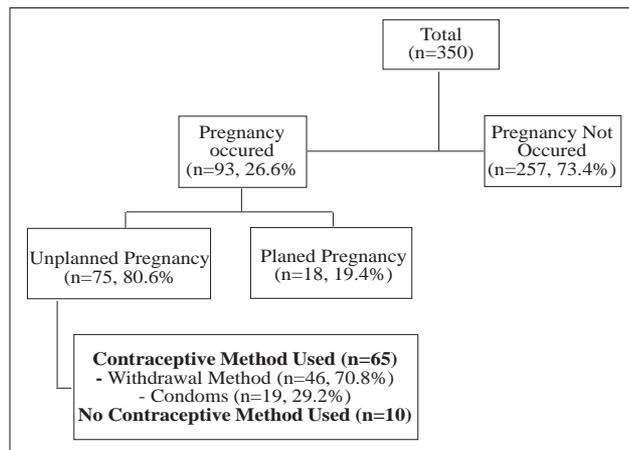


Figure 3: Flowchart Showing Pregnancy Occurrences, Desire for Pregnancy, and Method Used in Unplanned Pregnancies

The comparison of practicing contraception before and during lockdown with general characteristics showed significantly higher mean age of women using contraception before lockdown (p-value <0.001) and during lockdown (p-value 0.002). While the use of contraception was significantly higher among women with grand multiparity (p-value 0.028) (Table 1).

DISCUSSION

During the COVID-19 pandemic, many countries implemented tough lockdowns and movement control orders in order to slow down the transmission of the virus. The public health infrastructure shifted focus to support and treat people with COVID-19, therefore essential maternal health services including family planning were neglected¹⁰. The unmet need for contraception during lockdown was greatly affected¹¹. The findings of the current study have reported that the use of contraceptives dropped from 87.4% before lockdown to 82.3% during lockdown in our cohort. Similarly, a study has reported a 10% decline in the use of sexual and reproductive health services and short and long acting reversible contraceptives in developing countries over a period of one year⁸. However, a survey conducted in a developed country reported positive impact on use and easy access to contraceptives during COVID-19 lockdown⁹. The responders could easily order the required contraceptives online to be delivered to their homes, without needing to visit clinics or pharmacies⁹. However, uncertainty about the correct use of contraceptives was reported in this study. The need of mobile and free access to contraceptives during the lockdown was also encouraged in other published literature^{12,13}.

According to our study, the most commonly used contraception method before lockdown was using a condom. Moreover, combined oral contraceptives and long acting reversible contraception were also used by 22% and 21% respectively. However, the withdrawal method was reported by a very limited number of women. These findings remarkably changed during the lockdown. Even though the use of condoms was still reported by most of the women during the lockdown, the use of withdrawal method increased and was reported by 40% of the women. Studies report that coitus interruptus is a traditional method of avoiding pregnancy¹⁴⁻¹⁶. Though, modern contraceptives have largely replaced this technique, but the current study findings are reporting surges in the practice of withdrawal method during the lockdown, probably due to the limited access to contraceptives.

Our findings show that lack of consultation due to fear of getting COVID-19 and no access to clinics, were the most common reasons for not using contraception, among women who were practicing contraception before the lockdown. This finding is supported by various studies as well^{10,11,16, and 17}. In the current study, a considerable decline in the use of combined oral contraceptives (22% vs 0 %) and LARCs (21.6 % vs 9.4%) was observed during the lockdown as compared

Table 1: Comparison of Contraception Practices Before and During Lockdown with General Characteristics (n=350)

	Practicing Contraception Before Lockdown		p-value	Practicing Contraception During Lockdown		p-value
	Yes n (%)	No n (%)		Yes n (%)	No n (%)	
Mean Age, years	30.81 ±5.14	26.73 ±4.61	<0.001 ^{α*}	30.70 ±5.33	28.42 ±4.40	0.002 ^{α*}
Education						
Illiterate	64 (77.1)	19 (22.9)	0.001 ^{¥*}	73 (88.0)	10 (12.0)	0.096 [¥]
Less than or equal to Matriculation	173 (88.3)	23 (11.7)		162 (82.7)	34 (17.3)	
More than or equal to Intermediate	69 (97.2)	2 (2.8)		53 (74.6)	18 (25.4)	
Parity						
Primiparous	40 (83.3)	8 (16.7)	0.512 [¥]	34 (70.8)	14 (29.2)	0.028 ^{¥*}
Multiparous	216 (87.4)	31 (12.6)		204 (82.6)	43 (17.4)	
Grand Multiparous	50 (90.9)	5 (9.1)		50 (90.9)	5 (9.1)	

α Independent t-test applied, ¥ Chi-square test applied, * p-value <0.05

to before the lockdown. However, the use of the withdrawal method increased remarkably during the lockdown (7.8 % to 40.3 %).

According to the current study, pregnancies during lockdown were reported by 26.6% women. Moreover, unplanned pregnancies were reported by 80.6% of the women. In a study conducted in Italy, it was revealed that all married women were using contraception during the lockdown, and none had any unplanned pregnancy¹⁸. The high prevalence of contraceptive usage in developed countries and improved knowledge about contraception is probably the most common reason behind differences in the unplanned pregnancy occurrences between developed and underdeveloped country.

These findings could be observed in the light of the limitation that this study was carried out during the lockdown period and in one center, and the number of samples recruited in the study was limited. Despite this limitation, this study is of significance as an important issue of reproductive health is highlighted and reported from a low resource region. The findings will surely help the healthcare providers in dealing with the situation more effectively and planning for the future.

CONCLUSION

A decline in the use of contraceptives was reported in our cohort during the lockdown. The most reported reason for non-compliance among women who were practicing contraception before the lockdown, were lack of consultation due to fear of COVID-19 and no access to clinics. Furthermore, the current study has also highlighted the increased chances of unplanned pregnancies among women who used withdrawal method for contraception.

Conflict of Interest: The authors declare that they have no conflict of interest.

Authors' Contribution: RM proposed the study concept, worked on manuscript writing, and synopsis writing. SAM and AT prepared the study protocol and worked on data collection and data analysis. All authors critically reviewed the final manuscript.

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