

Women's Utilization of Contraceptive Methods during COVID-19 Pandemic in Zagazig city

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Abstract

Background: The COVID-19 pandemic poses a number of problems for health systems around the world, especially those related to reproductive health, with an uneven impact on those with the fewest resources. **Aim of the study:** was to assess women utilization of contraceptive methods during COVID-19 pandemic in zagazig city. **Subjects and method:** **Study design:** Descriptive study. **Setting:** The study was conducted at two settings: El-Nahal and Ghazala maternal and child health center in Zagazig city. **Subjects:** A purposive sample of 290 women in the child bearing age was included in the study. **Tools of data collection:** Two tools were used; Structured interview questionnaire and questionnaire of women's utilization of contraceptive methods during COVID-19 pandemic in Zagazig city. **Results:** More than two fifth of the studied women who were using contraception for the first time or change to a new method preferred to use hormonal methods followed by natural methods, barrier methods and finally copper IUD. Transportation and administrative barriers were the main barriers during covid- 19 pandemic that lead to stop/discontinuation of FP methods. **Conclusion:** The vast majority of women were visiting MCH to obtain regular methods, others were the first time or switching to new method. The most commonly utilized methods by the majority of women were hormonal methods; lower percentages were using natural methods and the least used were barrier methods with slight increase in utilization of natural and barrier methods than before COVID-19. **Recommendations:** Promoting public facilities and centers with universal infection control measures and those services offered that are up to the quality standards can help increase women's use of contraceptive methods during COVID-19 as this will lessen the fear of attracting infection for both health care providers and women seeking contraceptive care in these facilities.

Keywords: Utilization, Contraceptive methods, COVID-19 pandemic, Zagazig.

Introduction:

The World Health Organization (WHO) formally designated the new coronavirus as Coronavirus Disease 19 (COVID-19). Additionally, SARS-COV-2 has been proposed as the name for the virus that causes Covid-19 by the International Committee on Taxonomy of Viruses. Particularly since its initial identifications in Wuhan, China in December 2019, Covid-19 has a huge number of cases and deaths. ⁽¹⁾

The Middle East Respiratory Syndrome Coronavirus (MERS-COV) and the Severe Acute Respiratory syndrome Coronavirus (SARS-COV) were the first two human coronavirus epidemics. Viruses that is single-

stranded, non-segmented, enveloped, and non-segmented cause problems ranging from the common cold to serious and fatal illnesses. While fecal-oral transmission through contaminated fomite on surfaces has been documented, the predominant mechanism of infection is through intimate contact with an infected individual by inhaling respiratory droplets ⁽²⁾.

In the middle of February 2020, Egypt reported its first coronavirus case. Between the middle of March and June 27, 2020, there was a partial lockdown. - Work from home and the suspension of some economic activity - School, restaurant, and place of

worship closures - Curfew from 8 p.m. to 6 a.m. between May 1, 2021, and January 3, 2020. 227,552 verified cases and 13,339 COVID 19 fatalities were reported by Egypt Gas. ⁽³⁾.

Women face a variety of obstacles when it comes to accessing and using family planning services, including fear of infection and Covid-19 transmission, which causes women to put off getting FP services, assigning a family member to get them FP methods, and switching from public to private FP services because the former were perceived as being unsafe and not adhering to protective measures. Several public facilities ran out of oral tablets and 3-month injectable during lockdown months, and private chemists saw stock outs of various types of oral pills and one-month injectable. Closure of certain institutions during the COVID-19 lockdown, the transformation of a number of hospitals into quarantine facilities, and lengthy wait times for services at both public and private establishments ⁽⁴⁾.

Family planning and reproductive health services may be interrupted as a result of interruptions in the supply chain for contraceptives, stress on the health care infrastructure, a decline in demand for FP/RH services, and drops in household incomes. ⁽⁵⁾.

It was more probable for poorer women and those living in distant rural areas to experience unequal access to family planning and the resulting unwanted pregnancies. Those who were unable to pay for private treatments put off getting treatment or had unqualified staff provide ideal care. Women and their families were financially burdened by the inability to receive inexpensive FP services, which also exposed them to the danger of an unexpected pregnancy. ⁽⁶⁾.

A unified system of healthcare delivery that uses telecommunications and computer technology as an alternative to face-to-face contact between clinician and patient is

necessary to overcome these obstacles and increase women's satisfaction with contraceptive care during the Corona virus pandemic. These methods of communication include SMS, What's App, video calls, and telephone calls. ⁽⁷⁾.

To reduce the time needed for an in-person visit, this method could be used to assess and manage potential side effects, counsel clients about long-acting reversible contraceptives and provide them as IUDs, provide new prescriptions and refills with prescriptions sent directly to the pharmacy, counsel clients about fertility awareness and using emergency contraception, including both over-the-counter and implantable methods, and counsel clients about long-acting reversible contraceptives ⁽⁸⁾.

Telemedicine can be used for the following visit types: oral emergency contraception (EC) administration, transdermal patch or vaginal ring beginning or maintenance, and contraceptive counselling. Many types of contraception are available through telemedicine, including condoms, combination oral contraceptives, progestin-only contraceptives, contraceptive vaginal rings, contraceptive patches, and emergency contraception⁽⁹⁾.

Significance of the study:

According to United Nations Millennium Development Goals, 2022 ⁽¹⁰⁾ family planning is crucial for women's health as well as the health of their families, and it can hasten a nation's progress in eradicating poverty and accomplishing development objectives. One of the key objectives is universal access to reproductive health care, including family planning, due to the significance of this issue. ⁽¹¹⁾ The pandemic may have a detrimental impact on access to modern contraception and family planning options since COVID-19 has hampered the utilization of family planning services. It frequently had a negative correlation with less availability and

use of health services like contraception, skilled birth attendance, and facility-based births. Due to widespread lockdowns during COVID-19, there was a restricted supply of different contraceptive options that took into account difficulties with changes in contraceptive choices and couple behavior. Couples may have less access to contraception as a result of these restrictions, which could increase their risk of unintended pregnancies. In addition, if family planning services are not deemed vital, women may not be able to access them due to restrictions placed on public movement. Additionally, no prior research on this subject was conducted in Zagazig. Therefore, this study was carried out to evaluate women's utilization of contraceptive techniques during COVID-19 pandemic in Zagazig city.

Aim of the study:

The aim of the current study was to assess women's utilization of contraceptive methods during COVID-19 pandemic in Zagazig city.

Research objective:

- Identify women's utilization of contraceptive methods during COVID-19 pandemic in Zagazig city.

Research question:

What is women utilization of contraceptive methods during COVID-19 pandemic in Zagazig city?

Subjects and Methods:

Research design:

A descriptive design was adopted to carry out this study.

Study Setting:

The Ministry of Health and Population in Zagazig City's El-Nahal and Ghazala Child Health Centers served as the sites for the current study. **El-Nahal** maternal and child health center is composed of three floors, the first floor consists of box office and registration room for births and deaths and vaccination room. The second floor consists of pharmacy,

investigation laboratory, ophthalmology clinic, dental clinic, emergency room, sterilization room, files room, Personnel affairs room and manager room. The third floor consists of Preventive department, antenatal and gynecology clinics and family planning clinic.

Ghazala maternal and child health center composed of two floors; the first floor consists of examination clinic, sterilization room, antenatal clinic, family planning clinic, dental clinic, registration room for births and deaths, emergency room, vaccination room, investigation laboratory, audiology room and pharmacy. The second floor consists of personnel affairs room, doctors residence and nurses residence. The places already stated were picked because they are the key locations in Zagazig city with high attendance where women may get family planning services, immunize their kids, and get other reproductive health services. Every day from 9 am to 2 pm, it is open.

Study Subjects and sampling:

Inclusion criteria:

- Women who accepted to participate in study
- Women in reproductive age group and seeking for contraception

Sample size:

The study used purposive sample of female participants. The total number of women at childbearing period in zagazig city in 2021 was 454813 women. , The percentage of IUD users, 24.9% (12), the confidences level 95%, and the power of the test, 80%. The sample was calculated to be 290 women by Epi info version 6.02 based on the total number of women in childbearing years in Zagazig city

Tools for data collection:

Two tools were used

Tool I: Structured interview questionnaire developed by the researcher and entailed five parts:

Part 1: Sociodemographic characteristics such as age, education, occupation and residence were obtained.

Part 2: Medical and surgical history includes physical conditions such as high blood pressure, type 2 diabetes, kidney, liver, respiratory, cardiac, mental, or psychiatric illnesses. The woman is questioned regarding any prior procedures such as, dilation/curettage, mastectomy, myomectomy, or other procedures.

Part 3: Obstetric characteristics as duration of marriage, gravidity, parity, abortion, number of living children and mode of last delivery.

Part 4: Menstrual history as age at menarche, regularity and duration of menstruation, presence of menstrual disorders and amount of menstrual bleeding.

Part 5: Contraceptive history: Before and after COVID-19, hormonal methods of contraception were utilized by women, including pills, including progestin-only pills and combination pills, copper, and hormonal IUDs. Subdermal implant, vaginal ring, monthly and every three months contraceptive injection. Natural approaches like rhythmic method, withdrawal, and abstinence. Barrier techniques such as the cervical cap, diaphragm, male and female condoms and spermicidal suppository. Women were questioned about their reasons for switching to or abandoning other forms of contraception during COVID-19, whether they went without using contraception for any period of time during COVID-19, whether they sought out care at pharmacies and private clinics, and whether they became pregnant unexpectedly during COVID-19.

Tool II: Questionnaire of women's utilization of contraceptive methods:

This includes questions about reason of visiting MCH during Covid 19 for obtaining contraceptive method, time for seeking contraceptive method, causes of discontinuation or change to other methods of contraception during

covid -19 as lack of methods in family planning units or pharmacies, lock down of MCHS and family planning units, have unintended pregnancy during covid and obstacles facing utilization of contraceptive method during covid 19 pandemic.

Content Validity and Reliability:

Five specialists in the fields of obstetrics and gynecology medicine and nursing examined the tools to assess their content validity. Adaptations were made in accordance with their judgement. The Cronbach's Alpha Coefficient Test was used to determine reliability, and the results showed that each item of the tools used was composed of reasonably homogeneous items. The following values were made clear: During COVID-19, women used contraceptive techniques (Alpha Cronbach 0.837, $f=12.96$ and $P=0.000^{**}$).

Pilot study:

Pilot study was conducted to evaluate the study's viability and the clarity of the instruments. About 10% of the women who met the requirements were included in the pilot sample. This pilot study was carried out a month prior to the data collecting. The aim of the pilot study was to determine the tools' viability and to identify any issues that were unique to the statement, such as its clarity and sequence. Estimating how long it would take women to complete the study's tools was also helpful. After doing the pilot study, it was discovered that the tools' questions were relevant and understandable, but a few terms needed to be changed to make them more so. On the basis of the pilot's findings, the data gathering form was finally developed. In the primary study sample, the pilot study's participants were not included.

Field work:

From December 2021 to July 2022, a total of 8 months, the researcher spent three days each week in the study setting collecting data. The

following two stages were used by the researcher to begin data collection:

Assessment phase:

This phase included interviewing of the 290 studied women to gather baseline data. The researcher welcomed all women and provided information about aim and instructions for filling out the questionnaire.

Average time for the completion of each questionnaire was from 30 to 45 minutes. The studied women were evaluated for their use of contraceptive methods during COVID-19 throughout this phase: Utilization of women was evaluated across four subscales:

1. Health care delivery: Women were questioned about whether service providers inquire about the client's concerns with the procedure and evaluate its utilization.

2. Health facility (center): Which included questions about availability, adequacy of contraceptive methods and adequacy of number of physicians and nurses?

3. Interpersonal aspects of care: This asked questions on cooperative treatment of women seeking care, appropriate time being provided to each woman, and refusal to provide care out of fear of infection helped to confirm that the women understood the instructions.

4. Access to services: Which included concerns about the distance needed to deliver contraceptive care?

Administration design and Ethical consideration:

By submitting an official letter from the nursing faculty to the relevant research setting authorities in order to secure their consent for data collection, an official authorization was granted. The nursing and medical professionals who care for ladies were asked for their participation. Throughout every stage of the study, all ethical considerations were taken into account, and the subjects' anonymity and confidentiality were protected by the researcher.

Ethical code number which provided by ethical committee in the faculty of nursing was M.D ZU.NUR/145/13/7/2021. Before each lady agreed to participate, the researcher gave a brief explanation of the study's purpose and nature. Women were also given the assurance that the data they provided for the study would be kept private and utilized only for that purpose.

Statistical Analysis:

Microsoft Excel software was used to organize, code, and enter the acquired data. The Statistical Package for the Social Sciences (SPSS) version 20.0 software was then used to import the data for analysis. The following tests were performed to determine whether differences were significant. Difference and association of qualitative variable using Chi square test (χ^2). According to the type of data, quantitative represent as number and percentage, quantitative continues group represent by mean SD. P value was set at 0.05 for significant results and 0.001 for highly significant results when comparing differences between quantitative independent groups using paired t tests.

Results:

Table 1 shows the socio-demographic characteristics of the studied women. It clarifies that, 45.5% of the studied women their age ranged from 20-<40 years, the mean \pm SD of women's age was 28.55 ± 5.87 years. As regard to occupation, 70.7% of the studied women were housewife. Also, 51.7% of them were residing in rural areas.

Figure (1) show that, 51.7% of the studied women had secondary education. Also, 24.8% of them had high education. While, 16.6% of them had essential education (primary and preparatory).

Table (2) displays the medical and surgical history of the studied women. It reflects that, (11.0% and 8.6%) of the studied women had hypertension and respiratory disease,

respectively. Regarding surgical history, 3.4% of women had a history of dilatation and curettage.

Table (3) shows the obstetric characteristics of the studied women. It reveals that, 33.8% of the studied women their duration of marriage ranged from 0 -< 5 years with mean \pm SD 9.11 ± 5.51 years. Also, (41.4% and 43.1%) of the studied women were gravida one and para one, respectively. Moreover, 41.4% of them have one surviving child. Moreover, 60.0% of them their last delivery was normal vaginal delivery. Furthermore, 64.3% of the studied women their last delivery from <3 years, the mean \pm SD of women's last delivery was 3.25 ± 1.13 years.

Table (4) shows the distribution of the studied women according to their menstruation characteristics. It was observed that, 51.7% of the studied women, their age at menarche was 12 - <14 years, with a mean SD of 12.85 ± 1.70 years. Regarding characteristics of menstrual cycle, 57.9% of them have a menstrual cycle from 4 to 7 days . Also, 39.7% of them have menstrual disorders.

Table (5) displays the distribution of the studied women according to their contraceptive history. It was clarified that, 12.1% of the studied women use natural methods, 71.4% of them use locational amenorrhea methods. Moreover, 64.5% of studied women use hormonal methods, 54.6% of them use pills. While, 5.2% of the studied women use barrier methods, 60% of them use male condom. Furthermore 18.2% use copper IUD. Also, 55.5% of them use one contraceptive method during their life span.

Table (6) shows the distribution of the studied women according to their utilization of contraceptive methods during covid 19. It was clarified that, 87.9% of the studied women visit MCH during covid 19 for obtaining regular follow up . Also, 20.6% of the studied women who were using contraception

for the first time or switching to a new method preferred to use natural methods, 81% of them use lactational amenorrhea methods. Moreover, 43.1% of the studied women who were using contraception for the first time or change to a new method preferred to use hormonal methods, 47.7% of them use pills. Furthermore, 19.6% of the studied women who were using contraception for the first time or switching to a new method preferred to use barrier methods, 70% of them use male condom. While, 16.7% use copper IUD.

Moreover, 87.9% and 70.0% of the studied women don't spend time without use of contraception during covid 19 and don't seek care available in pharmacies and private clinics, respectively.

Figure (2): according to reasons of discontinuation of some contraceptive methods and change to another one, 73.1% of studied women change their contraceptive method due to Lock down of MCHC and family planning units meanwhile 26.9% of them suffer from Lack of methods in family planning units or pharmacies.

Figure (3): shows that, (67.6% and 65.9%) of studied women are satisfied with health care delivery and health facility. Also (62.8% and 64.8%) of them are satisfied with interpersonal aspects of care and access to services, respectively.

Figure (4): represent obstacles facing utilization of contraceptive methods among studied women, transportation and administrative barriers were the main barriers during covid- 19 pandemic that lead to stop / discontinuation of FP methods (66.5%, 54.8%) respectively.

Discussion:

The COVID-19 pandemic, which is being treated as a global health emergency as of the beginning of 2020, continues to pose a variety of problems for health systems worldwide, with a disproportionate

impact on those with the fewest resources. Due to the increase in the number of infected individuals during this COVID-19 pandemic, healthcare services are in decline globally. The necessity to strike a balance between conventional medical treatment and a potent COVID-19 pandemic response is constantly being emphasized. The health system is likely to be put under tremendous strain as a result of the COVID-19 pandemic⁽⁸⁾.

As for general characteristics of the studied women, the present study clarifies more than three quarter of studied women from eighteen to forty four years were seeking contraceptive methods during COVID-19 pandemic with a mean age 28.55 ± 5.87 years. As regards occupation and residence, less than three fourth of the studied women were housewives and almost half of them were residing in rural areas. As for education, almost half of the studied women had secondary education, almost one fourth of them had high education, while less than one fifth of them had essential education (primary and preparatory).

In the same line with the present study findings, Amr et al⁽¹⁴⁾ who reported that the participant women were at different age groups with a somewhat higher mean age of 30.43 ± 6.71 years in their study about barriers to contraceptive utilization techniques among women during COVID-19 Outbreaks at Beni-Suef university hospital. The majority of women were housewives, half of them were from rural areas, and the majority had a secondary education.

Also in partial agreement with the present study findings, Balogun et al⁽¹³⁾ studied the difficulties in obtaining and using services for maternal, neonatal, and child health in Nigeria during the COVID-19 pandemic: cross-sectional research. The bulk of the women who were researched were between the ages of twenty and forty, with only a small number being younger than twenty or older than forty. Most of the

women were also employed. Due to cultural differences, only half of them had post-secondary education, less than a third had primary education, and less than a fifth had poor education.

As for medical history of the studied women, the present study revealed that almost two fifth of the studied women had chronic diseases as hypertension, respiratory, diabetes mellitus, renal, cardiac, oncology and hepatic diseases respectively with no psychiatric or mental diseases. In contrast with these findings, Can⁽¹⁵⁾ who carried out a study to assess how women's satisfaction with their contraceptive methods changed during the COVID-19 pandemic in Turkey reported a lower prevalence of medical and psychological problems among the tested women.

Concerning obstetric characteristics, in the present study less than two thirds if the studied women were married for less than ten years and the other one third were married for more than ten years with a mean duration of marriage 9.11 ± 5.51 years and the majority of them had one to two living children. Almost two fifth of them were primipara and the remaining three fifths were multipara. The last mode of delivery was vaginal delivery in three fifth of the studied women.

On the other hand, Can⁽¹⁵⁾ indicated that the average marriage lasted 12 years (with a range of 1–35 years), and that nearly one-fourth of the participating women were married for more than 20 years. Most of them had between three and four kids. This could be explained by the higher mean age (35 years) than the current study. In consistent with the present study findings, Amr et al⁽¹⁴⁾ found that nearly three-quarters of the women were multipara and that vaginal delivery was the most common method of delivery.

The present study discussed contraceptive methods utilized and preferred by women before COVID-19 pandemic and still using them after COVID-19. It revealed that the most

commonly used methods by the majority of women were hormonal methods (hormonal device, pills, injectable and subdermal implant respectively), in addition lower percentages of women were using natural methods as lactational amenorrhea, calendar method and withdrawal method respectively which were used for a short duration less than one year as they were difficult to maintain. The least used were barrier methods as male condom and spermicidal suppository.

On the contrary, Brunie et al ⁽¹⁶⁾ undertook a prospective cohort research to represent several geographical areas in Malawi, Nepal, Niger, and Uganda. Subdermal implants were the most popular method of birth control in these nations before to COVID-19, and they are still in use today, followed by injectable, condoms, pills, emergency contraception, cycle beads, and the lactational amenorrhea method. This clarifies how cultural differences in method availability and preference affect the use of contraception.

Moreover, Reproductive Health Supplies Coalition & Global Financing Facility ⁽¹⁷⁾ investigated potential consequences and mitigation for preserving access to contraceptives during COVID-19 disruptions in South Sudan. They stated that hazards to preserving access to contraceptives are probably connected to the intensity of contact (the amount of time a client must spend at a medical facility and talking with a provider) and the frequency of contact (how frequently a method needs to be re-supplied). Nearly two thirds of women used pills and condoms, which were high frequency but low intensity, meaning that women using these methods need to resupply. However, methods can be obtained with little face-to-face contact, and advance provision can limit frequency.

Additionally, one-fourth of women used injectable, which were

distinguished by high frequency and medium intensity, putting them at high risk because they need to contact a doctor frequently for re-injections unless self-injection is possible. Women who already use IUD, implant, and permanent ligation have low risk because they can continue to be protected without interacting with the healthcare system due to the low frequency but high intensity of these procedures.

According to the present study findings, after COVID-19 small percentage of women were seeking contraception for the first time. Hormonal methods were still the most preferred methods of contraception during COVID-19 with increased percentage of hormonal IUD users post COVID-19. Also there was increase in the use of natural methods and barrier methods post COVID.

A nationwide internet-based survey conducted in the United States to study the early effects of the COVID-19 pandemic revealed that one to three women (one third) reported that because of the pandemic, they had to postpone or cancel visiting a healthcare provider for reproductive health care, or had difficulty getting their FP method. This increase was explained by these findings. Higher-income women were less likely to exhibit this than lower-income women. Because of the pandemic, 23% of women said they were considering utilizing a long-acting reversible technique (IUD, implant, injection, or shot). Lindberg et al ⁽¹⁸⁾.

In the same line with the present study findings, Awan et al ⁽¹⁹⁾ Studying the use, satisfaction, and quality of family planning services in Pakistan before and after the COVID-19 outbreak allowed researchers to clarify a sharp rise in the use of male condoms following the pandemic. This might be attributed to the fact that the procedure did not require a lengthy wait in a medical facility due to concern

over infection, did not require a health care provider as it is self-administered, and could also be used as a stopgap measure until another preferred method could be obtained.

It was evident in the present study that less than one fourth of women discontinued or changed contraceptive methods during COVID-19 and small percentage spent time without using any contraception. Lockdown of MCHs and family planning units was reported by almost three quarter of women and almost quarter of the studied women mentioned lack of methods in family planning units or pharmacies .

Similarly, Brunie et al ⁽¹⁶⁾ stated that during COVID-19, the same proportion of women changed or discontinued their contraceptive methods in Malawi, Nepal, Niger, and Uganda. On the other hand, greater proportions of women than in the current study stopped using contraceptives consistently throughout COVID-19. Abdel Wahab ⁽²⁰⁾ provided an explanation for this, stating that the COVID-19 pandemic has had a significant impact on public life in Egypt. To stop the virus's spread, a partial lockdown was enacted between March 2020 and June 2020. Most commercial and recreational activities were suspended, and many employers required their personnel to work from home. Schools, universities, and houses of worship were closed. During the lockdown months, a curfew was imposed from eight PM to six AM.

In the present study, the majority of women seek their contraceptive care through public sector and MCHs and less than one third of women had their contraceptive care through pharmacies and private clinics. In agreement with the present study findings, Brunie et al ⁽¹⁶⁾ In Malawi, Nepal, Niger, and Uganda, it was discovered that the same number of people said that the current source of family planning service supply was public sector facility, while a small percentage from private sector facility and a very small

percentage from pharmacies. This can be explained by the fact that government hospitals have treated millions of patients throughout the years, with the majority of the population receiving care that is both high-quality and affordable.

This was corroborated by the 2014 Egypt Demographic and Health Survey, which revealed that about 35% of married (or previously married) Egyptian women used family planning methods and obtained them from public facilities, while only a smaller percentage did so from private facilities like pharmacies or private clinics. Ministry of Health and Population/Egypt et al ⁽²¹⁾

As for unintended pregnancy, it is obvious in the present study that almost one fifth of the studied women had unintended pregnancy during COVID-19 pandemic. In consistent with the present study findings, According to Reproductive Health Supplies Coalition & Global Financing Facility ⁽¹⁷⁾, the COVID-19's effects on the usage of contraceptives depend on how severe and long the disruptions are. Without mitigation measures, it is predicted that between 6,900 and 29,600 women in South Sudan may not be able to utilise contraception, leading to 172 to 8,890 unwanted pregnancies.

In addition, Short et al ⁽²²⁾ who mentioned that when couples were physically apart, were alone, or were working from home, they could be more likely to lengthen their sexual encounters. Lockdowns and other restrictions are also making it difficult for people to get contraceptive treatments and supplies. These elements could result in millions more unintended births, millions more unsafe abortions, and thousands of deaths as a result around the world.

Moreover, in Pakistan the study of Sarfraz ⁽²³⁾ In March 2021, a United Nations survey conducted in 115 low-and middle-income countries revealed that approximately 1.4 million

unwanted pregnancies may have happened as a result of the disruptions to health care delivery brought on by COVID-19. This was due to the COVID-19 and family planning in the Eastern Mediterranean Region.

Even if women and couples could physically access healthcare providers, they might be deterred from doing so out of fear of catching the virus. In many nations, which frequently face stock-outs even in normal circumstances, border closures and disruptions to supply chains and procurement might significantly restrict the availability of contraceptive goods.

Conclusion:

It can be said that the results of the current study addressed the initial research question and showed that the majority of women visited MCHC to receive regular follow up, while some went there for the first time or changed to a new method. Hormonal methods were most frequently used by most women, followed by natural methods with lower usage rates and barrier methods with the lowest usage rates. With a slight increase in the use of natural and barrier methods compared to before COVID-19; reasons for changing or stopping the use of other forms of contraception during COVID-19 included the closure of MCHC and family planning facilities and a lack of contraceptives in these facilities or pharmacies.

Recommendations:

In light of the findings of the current study, it can be advised that increasing the use of contraceptive methods by women during COVID-19 can be accomplished by:

- Promoting public facilities and centers with the widespread infection control measures and those services provided are up to the quality standards as this will lessen concern about attracting infection for both health care providers and women seeking contraceptive care in these facilities.
- Orientation workshops can be held to increase chemists' knowledge of family planning. Additionally, chemists can receive simple and attractive leaflets and posters that highlight various FP approaches in a straightforward and appealing manner.
- In addition, it's important to identify options that women can be made aware of while simultaneously developing and operationalizing timely methods of reporting and addressing the shortage of family planning techniques dispersed at health institutions.
- It is crucial to consider options and look at potential fixes, such as cutting-edge telemedicine, internet apps, and text messaging for counselling services.

Table (1): Frequency distribution of the studied women according to their socio-demographic characteristics (n=290).

Items	No.	%
Age (Years)		
< 20	88	30.4
20-<40	132	45.5
≥ 40	70	24.1
Mean ± SD= 28.55 ± 5.87	Max= 44	Min= 18
		Range=26
Occupation		
Housewife	205	70.7
Working	85	29.3
Residence		
Urban	140	48.3
Rural	150	51.7

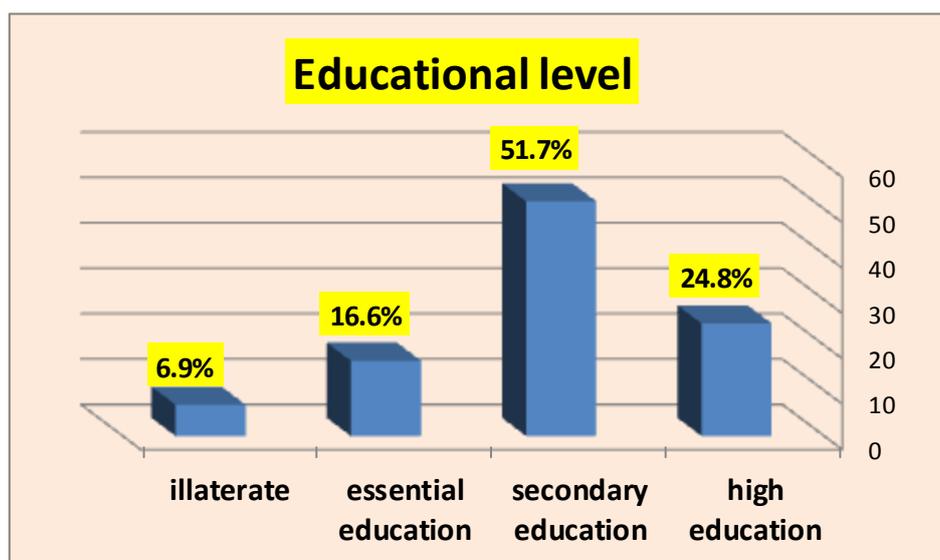
**Figure (1):** Percentage distribution of the studied women according to their educational level (n=290).

Table (2): Frequency distribution of the studied women according to their medical and surgical history (n=290).

Items	Yes	
	No.	%
Medical history		
Hypertension	32	11.0
Diabetes mellitus	23	7.9
Renal disease	12	4.1
Hepatic disease	4	1.4
Respiratory disease	25	8.6
Cardiac disease	8	2.8
Psychiatric problems	0	0.0
Mental disorders	0	0.0
Oncology (cancer)	6	2.1
Surgical history (n=13)		
Dilatation and curettage	10	3.4
Mastectomy	3	1.0

Table (3): Frequency distribution of the studied women according to their obstetric characteristics (n=290).

Obstetrical characteristics	No.	%
Duration of marriage (years)		
0 -< 5	98	33.8
5 -< 10	90	31.0
10-<15	52	17.9
≥ 15	50	17.3
Mean ± SD	9.11 ± 5.51	
Number of gravida		
One	120	41.4
Two	90	31.0
Three	50	17.3
More than three	30	10.3
Number of parity		
One	125	43.1
Two	95	32.8
Three	45	15.5
More than three	25	8.6
Number of abortions (n= 10)		
One	7	2.4
Two or more	3	1.0
Number of surviving children		
One	120	41.4
Two	95	32.8
Three	50	17.2
More than three	25	8.6
Mode of last delivery		
Normal vaginal delivery	174	60.0
Caesarean section	116	40.0
Last delivery (years)		
<3	175	64.3
3-<5	35	12.9
5-<10	32	11.7
≥ 10	30	11.1
Mean ± SD	3.25 ± 1.13	

Table (4): Frequency distribution of the studied women according to their menstrual characteristics (n=290).

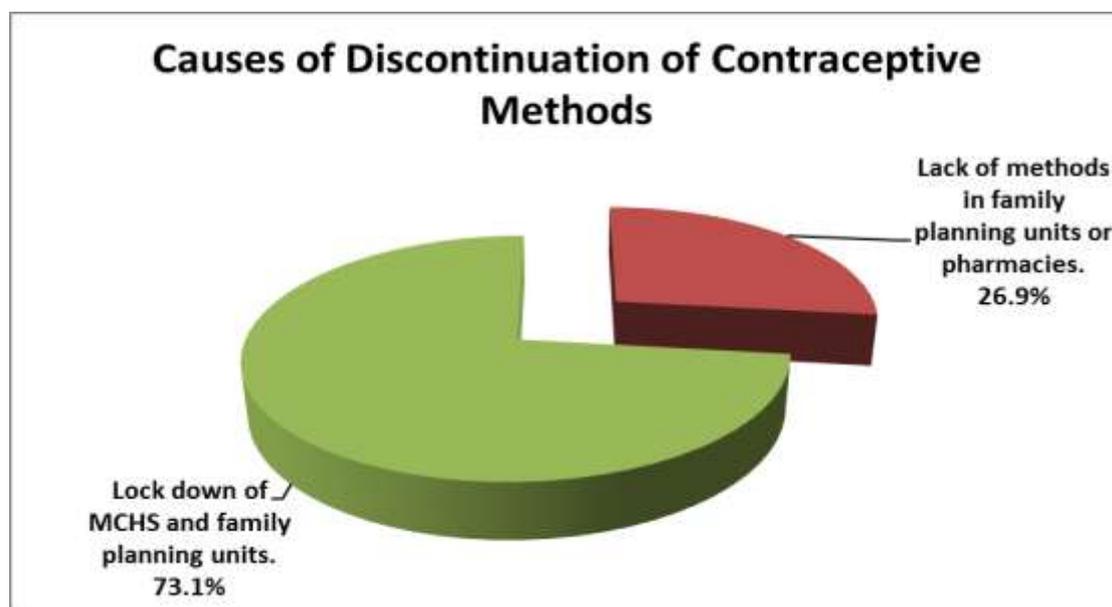
Menstruation history	No.	%
Age of menarche (years)		
10 < 12	62	21.4
12 < 14	150	51.7
≥ 14	78	26.9
Mean ± SD	12.85 ± 1.70	
Menstruation Rhythm		
Regular	202	69.7
Irregular	88	30.3
Amount of menstrual bleeding		
Slight (one pad/day)	58	20.0
Moderate (2pads/day)	168	57.9
Severe (3 pads/day)	64	22.1
Duration of the menstrual cycle		
≤ 3 days	44	15.2
4-7 days	168	57.9
>7 days	78	26.9
Menstrual disorders		
Yes	115	39.7
No	175	60.3

Table (5): Frequency distribution of the studied women according to their contraceptive history (n=290).

Contraceptive history	No.	%
Natural methods	35	12.1
Lactational amenorrhea	25	71.4
Calendar or rhythm method	9	25.7
Withdrawal (coitus interruptus)	1	2.9
Hormonal methods	187	64.5
Pills (combined pills and progestin only pills)	102	54.6
hormonal IUD	12	6.4
Contraceptive injection (monthly and every 3 months)	61	32.6
Subdermal implant	12	6.4
Barrier methods	15	5.2
Male condom	9	60.0
Spermicidal suppository	6	40.0
Copper IUD	53	18.2
Number of contraceptive methods that the woman used during her life span		
None	35	12.1
One method	161	55.5
Two methods	72	24.8
Three methods	22	7.6

Table (6): Frequency distribution of the studied women according to utilization of contraceptive methods during covid 19 (n=290).

Items	No.	%
Reason of visiting MCH during Covid 19 for obtaining contraceptive method		
Obtain regular follow up	255	87.9
The first time for seeking contraceptive method	35	12.1
Women preferences of contraceptive methods? (n=102)		
Natural methods		
Lactational amenorrhea	17	81
Calendar or rhythm method	3	14.3
Withdrawal (coitus interruptus)	1	4.7
Hormonal methods		
Pills (combined pills and progestin only pills)	21	47.7
hormonal IUD	13	29.6
Contraceptive injection (monthly and every 3 months)	6	13.6
Subdermal implant	4	9.1
Barrier methods		
Male condom	14	70
Spermicidal suppository	6	30
Copper IUD		
	17	16.7
Contraceptive history		
Spend time without use of contraception during covid 19		
Yes	35	12.1
No	255	87.9
Seeking care available in pharmacies and private clinics		
Yes	87	30.0
No	203	70.0
Have unintended pregnancy during covid		
Yes	55	19.0
No	235	81.0

**Figure (2):** Percentage distribution of the studied women according to reasons of discontinuation of some contraceptive methods and change to another one (n=67)

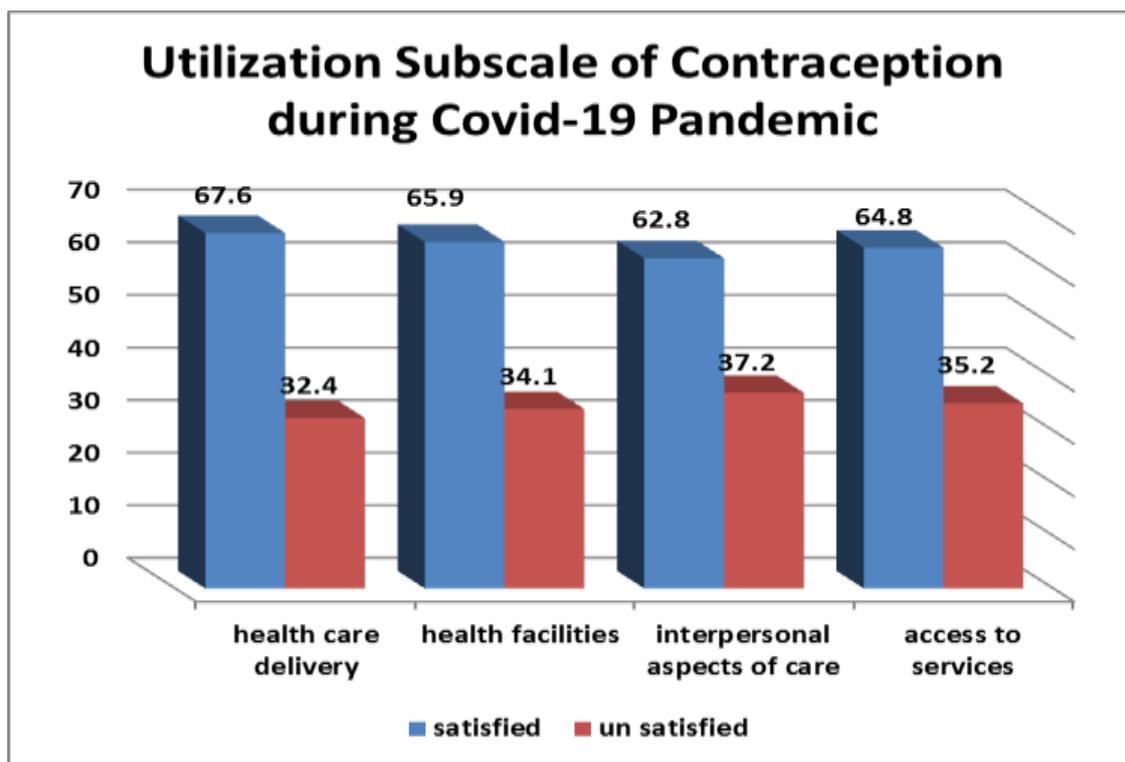


Figure (3): Frequency distribution of studied women according to their utilization subscales of contraceptive methods during covid-19 pandemic

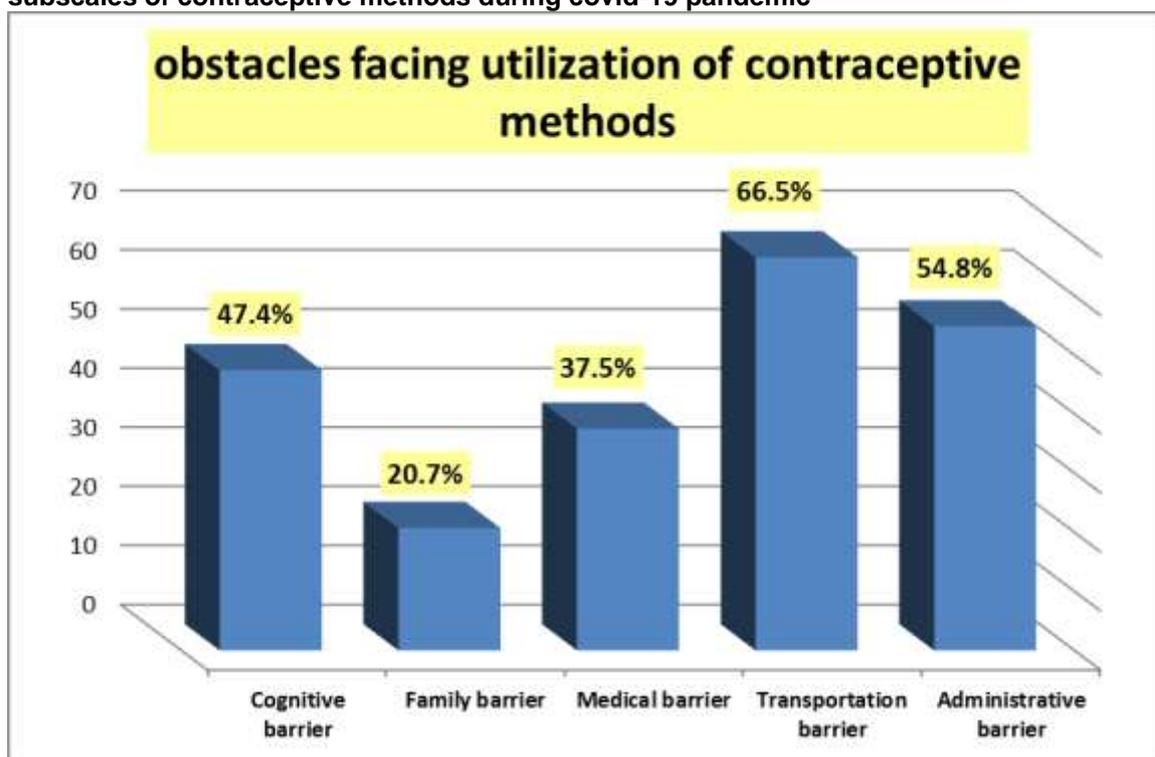


Figure (4): Percentage distribution of the studied women according to obstacles facing utilization of contraceptive methods (n=290)

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