
▪ **Basic Research**

Obstacles of Contraceptive Utilization Methods among Women during COVID-19 Outbreaks

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Abstract

Introduction: The access to family planning (FP), quality of care, and exploring obstacles to utilization of services are key factors in the adoption and continuation of contraception utilization in Egypt, COVID_19 strict lockdown measures, suspension of public transportation has affected access to healthcare in the public and private sectors, and limited access to the services. **The aim** was to assess the obstacles of contraceptive utilization methods among women during COVID-19 outbreaks. **Design:** Descriptive exploratory research design was utilizing to achieve the aim of this current study. **Settings:** The study was carried out in the maternal child health center and obstetrics &gynecology outpatient clinic at Beni-Suef University hospital, Egypt. **Sample:** A purposive sample of 250 women. **Tools:** three tools were used; interviewing questionnaire, barriers of utilization of contraception during (COVID-19) outbreak tool, and complication of using family planning methods questionnaire. **Results:** The present study explored the various types of reported barriers for women during COVID-19 as; family, medical and transportation barriers were the main barriers that lead to not using/discontinuation of FP. In addition, there was a significant difference between family, medical, and transportation related barrier and pimi and multiparty. **Conclusion:** There are many obstacles of utilization of contraceptive methods as insufficient staff and employee in MCH center, no medication and family planning methods, which mention as the main barriers for utilization. **Recommendation:** It is important to choices and explores possible solutions, as innovative telemedicine or internet apps and messages on mobile phone for counseling services.

Keywords: Obstacles, Utilization, Contraceptive Methods, Women, COVID-19 Outbreaks.

Introduction:

COVID-19 pandemic considered a global health emergency from the start of the 2020 year, till presents miscellaneous challenges to health systems globally, with an unequal influence on those that are the lowest resourced (Robertson et al., 2020; Adelekan, et al., 2020 & Velavan & Meyer 2020). Internationally, healthcare services are depressed due to the surge in the number of infected patients during this COVID-19 pandemic (Khan, et al., 2020). The need to balance routine healthcare provision with a robust COVID-19 pandemic response is continuously being boomed. Because of COVID-19 pandemic is predicted to continue, it is anticipated that the health system will be severely strained (WHO, 2020). COVID-19 pandemic has susceptible to be one of the most challenging tests handled by humanity in modern history, its effects can range from affecting livelihoods, growing morbidity and mortality, crushing health systems, and causing lasting geopolitical change. Furthermore, there were some constraints such as shortages of skilled human resources, logistics issues, and infrastructure issues that weaken the health systems during Pandemics such as Ebola and COVID-19 and lead to perform at a suboptimal level. Also, Finally, Measures implemented to contain the epidemic which has several negative effects in all fields of life include: strict lockdown measures, suspension of public transportation have affected access to healthcare in the public and private sectors, disruption of the continuity of essential health services including family planning, and limited access to such Services. With the COVID-19 pandemic to continue, it is anticipated that the health system will be severely strained (WHO, 2020).

Family planning has a serious role in shielding maternal and child health in numerous developing countries (Desta and Worku, 2017). It is a broad term in which it means the avoidance of undesirable birth, realizing needed youngster the direction of the gap between pregnancies, controlling the time at which birth happens in connection to the age of mothers (Nasr et al., 2018). According to Demographic and Health Survey (DHS) data reports, there was a positive relationship between Maternal and Child Health (MCH) service and contraceptive use Zerai & Tsui 2001 ; Seiber et al., 2005).

Worldwide in 2017, around 63% of females of reproductive age (15-49Y) were using some methods of contraceptives, with a prevalence above 70% in most developed countries (Saad, 2020). In developing countries, there were 214 million women in need to avoid pregnancy, while they were not using any modern contraceptive method. This huge number may be due to unavailable services, information, or lack of support from partners or the community. Globally, the prevalence unmet need for FP was 12% in 2017, and the 22 % rate was higher in Africa reaching. Egypt is the most populated country in the Middle East and the third most populated country in Africa Since 1990. so, Egypt did not achieve the Millennium Development Goals (MDG) 2015 target which was aiming at a contraceptive

rate of 70% to achieve a total fertility rate of 2.1 children per woman by the year 2017 (Saad, 2020).

Globally, reproductive health services such as contraception and abortion services are either blackout or not available. The International Planned Parenthood Federation reported anticipated deficiencies of contraception as lockdown and measures put in to curtail the pandemic lead to a decrease in the manufacturing of contraceptives. Because of measures taken for COVID-19 restraint, about forty-seven million women in 114 low-income countries will not be able to use contraception and this would result in about seven million unwanted pregnancies (Vora, et al., 2020). As a result of the COVID-19 epidemic, Egypt established quarantine hospitals for COVID-19 patients (Youssef et al., 2020).

In the less-developed countries, about one-fourth of pregnancies are Unintended. Stabilization of the global population is dependent upon the accomplishment of overcoming the obstacles to universal availability of services of both contraception quality54wwe v and FP units. Previous research handled the obstacles to the use of FP service and found that the most barriers were raised from psychosocial, administrative, cognitive, and cultural factors as well as physical barriers and barriers related to the FP method itself. As well as the decision to use or not to use FP services is the product of several demographic and service-related barriers (Amin, 2014).

Previous Several studies discussed common barriers that hinder effective use of family planning which included that, lack of adequate knowledge and awareness associated with failure to use contraceptives, its side-effects & contraindications, Lack of detailed and accurate information on contraceptives to adopt family planning methods (Muia et al., 2000). Also, the convenience and effectiveness of contraceptive method itself were the major factors that influenced the choice of them (Oye-Adeniran et al., 2006). However, Access to contraceptive services, including emergency contraception, that prevent the consequences of unprotected sexual intercourse (Tamire & Enqueselassie, 2007). Medically unnecessary limits placed on the shoulders of some females to receive certain types of modern methods may prevent women from receiving their preferred method or any method at all. Women's demographic characteristics such as age, marital status, or parity are considered from Eligibility restrictions (WHO, 2020). Therefore, the present study is an attempt to determine the Obstacles of the utilization of Contraceptive Methods among fertile women during COVID-19 Outbreaks.

Significance of the study:

Unintended pregnancy represents a public health problem in Egypt. Therefore, improving services in rural areas and improving the quality level and effective use of family planning methods could reduce the risks associated with the unintended pregnancy. The Egyptian

Demography Health Survey (EDHS), 2014 (Ministry of Health and Population [Egypt], 2015), showed that, overall, 16% of births in the 5-year period were not wanted at the time of conception (i.e., including the mistimed and unwanted). Among the births not wanted at the time of conception, just over half (8% of all births) were not wanted at all. There was a gap between the total fertility rate and the wanted fertility rate about 0.8 births and concluded that, if unwanted births could be eliminated, the total fertility rate in Egypt would decline by 20%. The number of maternal deaths can be prevented by effective and regular Family planning. Contraceptive usage deduced about 230 million childbirths each year worldwide, So, Family planning (FP) remainders a major primary prevention strategy for unwanted pregnancies. The World Health Organization (WHO) recommends a six-month inter-pregnancy interval following an abortion to ensure better maternal health (Akintade, Pengpid, & Peltzer, 2011).

COVID-19 has affected the use of family planning services that the pandemic could have negative effect on access to modern contraception and family planning choices. It often correlated with lower access to and utilization of health services such as contraception, skilled birth attendance and facility-based deliveries. With large-scale lockdowns during COVID-19, there was a limited availability of various contraceptive options that considered challenges concerning changes in contraceptive choices and behavior of couples. These restrictions led to couples may have limited access to contraception and, hence, may be at a higher risk of unplanned pregnancies (Khan et al., 2020). In addition, with the restrictive measures imposed on public movement, women might not be able to access family planning services, especially if such services are not deemed essential. Thus, there is inadequate data on COVID-19 and occurrence of unwanted pregnancy (Khan et al., 2020). It is very important to analyse obstacles in contraceptive choices and access for counseling services (Gad, Manar, Mervat, & Hanan, 2021).

Aim of the study:

The study aimed to assess the obstacles of contraceptive utilization methods among women during COVID-19 Outbreaks.

Research Questions:

What are the Obstacles of contraceptive utilization methods among women

during COVID-19 outbreaks?

2-Is there a relationship between obstacles and selected socio-demographic characteristics?

Research design:

Descriptive exploratory research design was adapted to achieve the aim of this current study.

Study setting:

The study was carried out in the MCH center and obstetrics & gynecology outpatient clinic at Beni-Suef University hospital in Egypt. These places provide free services such as delivering family planning methods, health teaching for family planning methods, antenatal care and gynecological care.

Subjects:

A purposive sample of 250 women. Inclusion principles: women during reproductive age (18-49) yrs. irrespective of parity, using any family planning methods, and willing to participate of the study. Women who were unwillingness to participate in this study and had any psychiatric disease were excluded from the study.

Sample size

A total of (250) participants were selected according to the following statistical formula $n = Z^2p(1-p)/d^2$, where z = level of confidence according to the standard normal distribution (for a level of confidence of 95%, $z = 1.96$). p = estimated proportion of the population that presents the characteristic (when unknown we use $p = 0.5$), d = (d is considered 0.05).

Tools of data collection: The researchers used three tools for data collection.

I. An interviewing questionnaire tool: which included three main parts as the following:

First part: women personal data included demographic data and medical history of the women which contained 7 questions concerned on (age, BMI, education level, place of residence, income, work and presence of chronic diseases).

Second part: Obstetrical & Gynecological profile consisted of 5 questions related to (menarche age, gravidity, parity no, number of abortions, and complications of both previous pregnancy & last labor).

Third part: Family planning history involved 6 questions about (types of FP method used, and its interval or frequency of using this method, duration of using it, causes of choice this method, duration of used FP methods, and the sources of their knowledge about FP methods. The reliability of the tools was assessed through Cronbach's alpha test $\alpha = 0.89$.

II. Barriers of utilization of contraception during (COVID-19) outbreak tool:

It consists of 29 items including data about the barriers that may face the women during using FPM throughout (COVID-19) outbreak. These items divided into 7 main obstacles like (knowledge& understanding barriers, family and fertility barriers, woman health barriers, place barriers, transportation barriers, facilities of the place difficulties, and lastly applications of preventive measures of (COVID-19) in the family planning centers during (COVID-19) outbreak. The reliability of the tools was assessed through Cronbach's alpha test α were 0.90.

III. Complications of using family planning methods questionnaire: it consisted of three main sections:

First Section: complication of the used FP method (5 questions) about occurrence of drowsy & headache, blurred vision, nausea & vomiting, low sexual desire and menstrual bleeding.

Second Section: complication from long use of FP methods (9 questions) concerning on (hypertension, diabetes, anemia, asthma, heart diseases, and obesity, DVT, swelling in breast, bleeding, and menstrual irregularities.

Third Section: assessment of causes of stopping using FP methods during (COVID-19) outbreak. It asked about if there was stopping of using FP method (FPM) during the Corona crisis, the discontinuing causes, the consequences of this stopping, and can they make continuous follow up for FP services during the Corona crisis or (COVID-19) outbreak. The reliability of the tools was assessed through Cronbach's alpha test α was 0.86.

Validity of the tool:

All Instruments were developed by the researchers after extensive literature review and tested for content validity by a jury of three experts in obstetric & maternity health nursing and community nursing to reach agreement of the finest form to be implemented. Modifications were carried out according to the panel decision on clarity of wards and suitability of the content.

Ethical considerations:

The researchers obtained solemn approval from the dean of the Nursing faculty at Beni-Suef University, manager of Beni-Suef University hospital and head departments for MCH center and antenatal clinic from the eligible women who agreeable to participate in the study. Written informed consent was obtained from the women after explaining the aim of the study. The women were reassured about anonymity, particularity and confidentiality of

the collected data and were informed about their rights to pull out from the study at any time.

Pilot study:

It was conducted on 10% of the sample that was not used for the final study, to ensure clarity of questions and then adjustment was done and to test the research feasibility, clarity and objectivity of the tools as well to evaluate the time needed for data collection.

Date collection procedure:

The researchers collected data from the previous mentioned places, Data collection were pooled for a period of four months from May to August 2020 three days/ week (This duration is peak of Quarantine).

The researchers follow all preventive measures for (COVID-19) outbreak during the dealing and collecting data from all participants' women. All married and using FP methods women were invited to participate in this study.

In a quiet and calm room at MCH center and obstetrics &gynecology outpatient clinic, the researchers obtained written approval from each woman to conduct the study, the researchers started by clarifying the aim of the study to the women individually by using face to face interview to gain their co-operation. The researchers clarify all tools used to collect data of the study, and explain how to fill it, and then ask each woman to self-administrate her questionnaires in a separate place /room to keep her privacy, if women can't read and write the researcher help her to write the answer of the questions.

Considering the researchers presented all-time for any explanations needed. Each woman took about 20 to 30 minutes to fill the questionnaires.

Statistical analysis:

The collected data were scored, tabulated and analyzed using (SPSS) version 20. It was presented in tables and graphs using the actual numbers and percentages. Appropriate statistical tests were used to analyze the data as, chi-square test (X²), the level of significance was set at $p < 0.05$.

Results:

The study sample included 250 women from out-patients clinic with the mean age of the sample was 30.43 ± 6.71 year's old. About (37.6%) had secondary school. Half of the sample (54%) was from rural areas and (62.8%) of them working (Table, 1). As shown in table 2,

more than two third of the study sample was multigravida (88.4%). About (63.6%) delivered normal vaginal delivery before, while, remaining (11.6%) had delivered vaginal delivery with episiotomy. Only, (4.4%) had previous complications during previous pregnancy.

It was observed in table (3) that (46.4 %) of the study sample is used non-hormonal contraceptive, while the remaining used nature contraceptive. Table (4) shows the contraceptive don't affect marital status among (91.2%) of women; also, (100%) were safe and very effective used. 34.4% used method from 2 to 3 years. Table (5) observes that, protective measures as follow in MCH as; (50.8%) never used sanitizer, availability of mask (59.2%),

Figure (1) shows that, sources of information toward family planning methods were (46%) medical team, (30%) social media, (19%) relatives & friends and the remaining (5%) is other sources. Table (6) shows complications as; blurred vision (100%), decrease sexual desire (61.6%). While complications from prolonged used as; (70.8%) weight gain, (76.4%) occurrence of bleeding, and (69.2%) had anemia.

Table (7) illustrated the reasons for stopping family planning methods, it was observed that 30.8 reported the reasons was no transportation, followed by health problems (25%), then desire to get pregnancy 22.8. Figure (2) obvious that, the prevalence of short of interspacing pregnancy was (15%) had unwanted pregnancy and (85%) didn't get pregnancy after stopping contraceptives.

Regarding cognitive barrier, the study revealed that, (77.6% & 79.2%) had enough information and information regard advantage and disadvantage with mean 2.68 ± 0.45 . Concerning family barrier, 79.6% of the study sample, her husband had desire for pregnancy with 1.63 ± 0.29 . In medical barrier 88% did not have any chronic disease. Regarding transportation barrier, 28.8% had distance between their home and MCH center, Finally, administrative barrier, (76% & 89.2%) had insufficient staff and employee in MCH center (Table, 8)

Table (9) reveals that, there is no relationship between cognitive barrier, family barrier, medical barrier, transportation barrier administrative barrier and the level of education ($p > 0.05$). there was statistically significant difference between cognitive, family, transportation barrier and level of occupation. While no difference medical barrier, administrative barrier and level of occupation (table, 10). There are significant difference between family barrier, medical barrier, and transportation barrier and parity ($p > 0.05$). While there is no significant cognitive barrier, and administrative barrier and parity (table, 11).

Table (1): Distribution of the studied mothers according to their socio-demographic characteristics (n=250)

Items	No	%
Women Age (Years)		
Less than 25	59	23.6%
25-35	129	51.6%
≥ 35	62	24.8 %
Age (M ± SD) years	30.43 ±6.71	
women Educational level		
Can't read and write	21	8.4%
Read and write	66	26.4%
Secondary education	94	37.6%
High education	69	27.6%
Occupation level		
Housewife	93	37.2%
Working	157	62.8%
Residence		
Urban	115	46%
Rural	135	54%

Table (2) Frequency distribution among the studied sample according to their obstetric history

Characteristics	Number of Participants (N =250)	Percent (%)
Parity		
Primi	29	11.6
Multi	221	88.4
Type of previous labor		
NVD	159	63.6
VD with episiotomy	29	11.6
CS	62	24.8
Previous pregnancy complications		
Yes	11	4.4
No	239	95.6

Table (3): Prevalence of the current utilization of the contraceptive's methods (n=250)

Characteristics	Number of Participants (N =250)	Percent (%)
Hormonal contraceptive	94	37.6
Non-hormonal contraceptives	116	46.4
Natural contraceptives	21	8.4
Barrier contraceptives	19	7.6

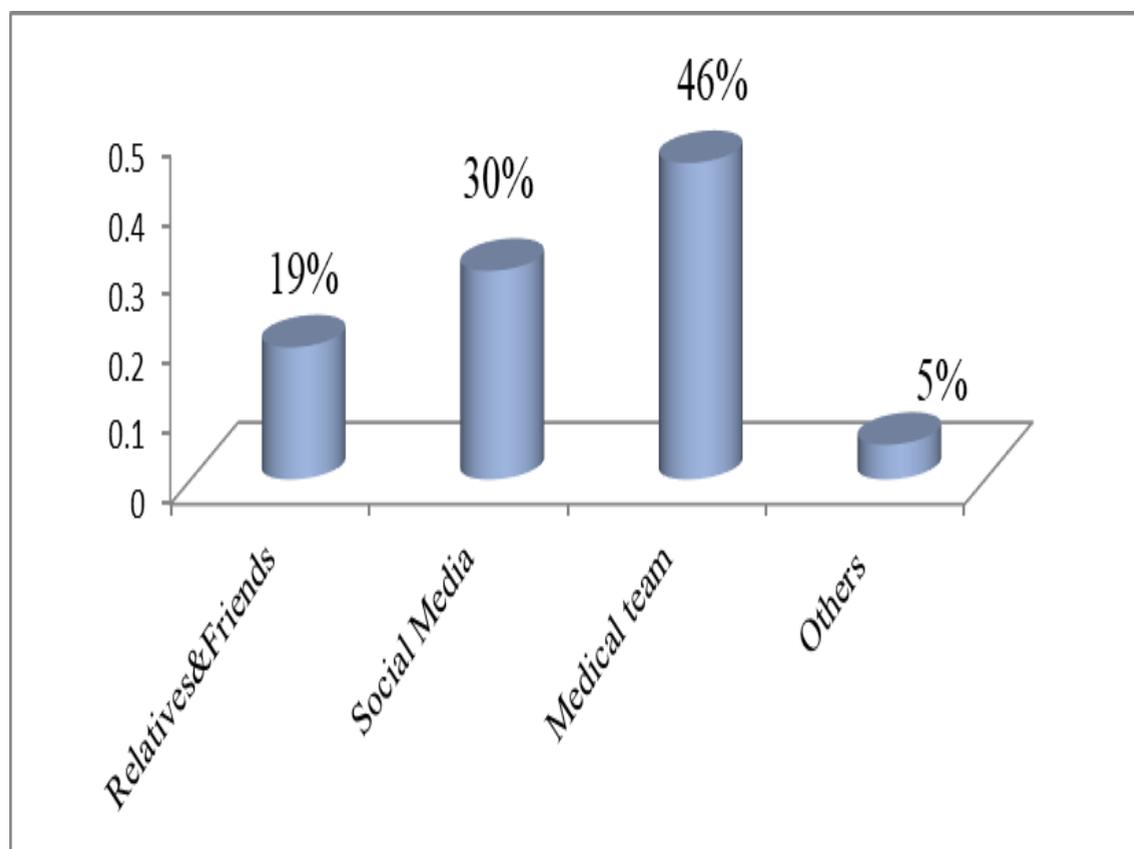


Figure (1) Sources of information toward family planning methods

Table (4) Frequency of utilization of the contraceptive's methods (n=250)

Characteristics	Number of Participants (N =250)	Percent (%)
Daily	83	33.2
Every month	35	14
Every two month	2	0.8
Every three months	13	5.2
Every one year	117	46.8
Reasons for choose family planning methods (correct answer)		
Safe & very effective	250	100
Easy to get pregnancy after stop	238	95.2
Desire of women	240	96
Don't affect marital status	228	91.2
Cheap & availability	94	37.6
Don't affect breastfeeding	116	46.4
Previously used	197	78.8
Duration of current methods		
Less than one year	55	22
From 2-3 years	86	34.4
From 3-5 years	82	32.8
From 5-7 years	26	10.4
More than 7 years	1	0.4

*mutually exclusive.

Table (5) Frequency of MCH follows protective measures against COVID-19

Preventive Measures	Always n(%)	Sometimes n(%)	Never n(%)
1. Availability of sanitizer	48(19.2)	75(30)	127(50.8)
2. Availability of gloves	37(14.8)	92(36.8)	121(48.4)
3. Availability of masks	35(14)	67(26.8)	148(59.2)
4. Availability of face shield	41(16.4)	95(38)	114(45.6)
5. Availability of protect clothes.	66(26.4)	57(22.8)	127(50.8)
6. Clean and disinfect surfaces continuously every person.	44(17.6)	86(34.4)	120(48)
7. Disinfect baths continuously every person.	54(21.6)	85(34)	111(44.4)

Table (6) Complications occurs from utilizing family planning methods from women perspectives

Complications	Correct answer	%
Breast tenderness	163	65.2
Blurred visions	250	100
Vomiting	175	70
Decrease sexual desire	154	61.6
Irregularity of menstruations	62	24.8
Complication from prolonged used		
Anemia	173	69.2
Weight gain	177	70.8
Occurrence of bleeding	191	76.4

Table (7) Reasons for stopping family planning methods (n=250)

Reasons	N	%
No transportation (Qarnteen)	77	30.8
No awareness	53	21.2
Health problems	63	25.2
Occurrence of complications	48	19.2
Desire to get pregnancy	57	22.8

Table (8) Distribution of the study sample toward Obstacles of Utilization Contraceptive Method (n=250)

Obstacles of Utilization Contraceptive Method	Yes n (%)	No n (%)	I don't know n (%)
Cognitive barrier			
Do you have enough information regarding FP?	194(77.6%)	13(5.2%)	43(17.2%)
Do you Know advantage &disadvantage of FP?	198(79.2%)	38(15.2%)	14(5.6%)
Total mean cognitive barrier (M± SD)	2.68 ± 0.45		
Family barrier			
Husband desire for pregnancy	199(79.6%)	31(12.4%)	20(8%)
Husband's parents desire pregnancy	5(2%)	235(94%)	10(4%)
Family income not adequate	17(6.8%)	199(79.6%)	34(13.6%)
Want child	4(1.6%)	128(51.2%)	118(47.2%)
Total mean family barrier (M± SD)	1.63 ±0.29		
Medical barrier			
Have chronic disease	28(11.2%)	220(88%)	2(0.8%)
Have bleeding from current methods	19(7.6%)	222(88.8%)	9(3.6%)
Disturbance in menstruation	18(7.2%)	230(92%)	2(0.8%)
Husband complain from methods	4(1.6%)	205(82%)	41(16.4%)
Total mean medical barrier	1.19 ± 0.38		
Transportation barrier			
Is there enough transportation during COVID-19?	7(2.8%)	239(95.6%)	4(1.6%)
Is there distance between home and MCH center?	72(28.8%)	101(40.4%)	77(0.8%)
Total mean transportation barrier	1.47 ± 0.48		
Administrative barrier			
Fear from infection	156(62.4%)	34(13.6%)	60(24%)
Insufficient medical staff	190(76%)	50(20%)	10(4%)
Insufficient employee in MCH center	223(89.2%)	25(10%)	2(0.8%)
No services over 24hrs in MCH center	210(84%)	28(11.2%)	12(4.8%)
No supplies in MCH center	204(81.6%)	24(9.6%)	22(8.8%)
No medications (IUD-Pills)	219(87.6%)	14(5.6%)	17(6.8%)
Follow infection control measures	200(80%)	34(13.6%)	16(6.4%)
Inadequate number in counseling in MCH	198(79.2%)	37(14.8%)	15(6%)
total mean administrative barrier	2.68 ± 0.42		
Total Obstacles mean of Utilization Contraceptive Method	1.93 ± 0.19		

Table (9) Relationship between the Obstacles of utilization Contraceptive Methods and selected socio-demographic characteristics.

Obstacles	Educational level	Mean rank	Sample size	Kruskal Wallis test	p-value
Cognitive barrier	Can't read and write	147.98	21	4.46	0.22
	Read and write	125.91	41		
	Secondary education	118.95	32		
	High education	122.89	155		
Family barrier	Can't read and write	115.64	21	0.80	0.84
	Read and write	130.40	41		
	Secondary education	129.25	32		
	High education	123.96	155		
Medical barrier	Can't read and write	130.50	21	1.13	0.76
	Read and write	118.06	41		
	Secondary education	131	32		
	High education	124.85	155		
Transportation barrier	Can't read and write	144.38	21	4.68	0.19
	Read and write	107.24	41		
	Secondary education	129.28	32		
	High education	126.19	155		
Administrative Barrier	Can't read and write	151.60	21	4.45	0.21
	Read and write	131.61	41		
	Secondary education	122.77	32		
	High education	120.11	155		

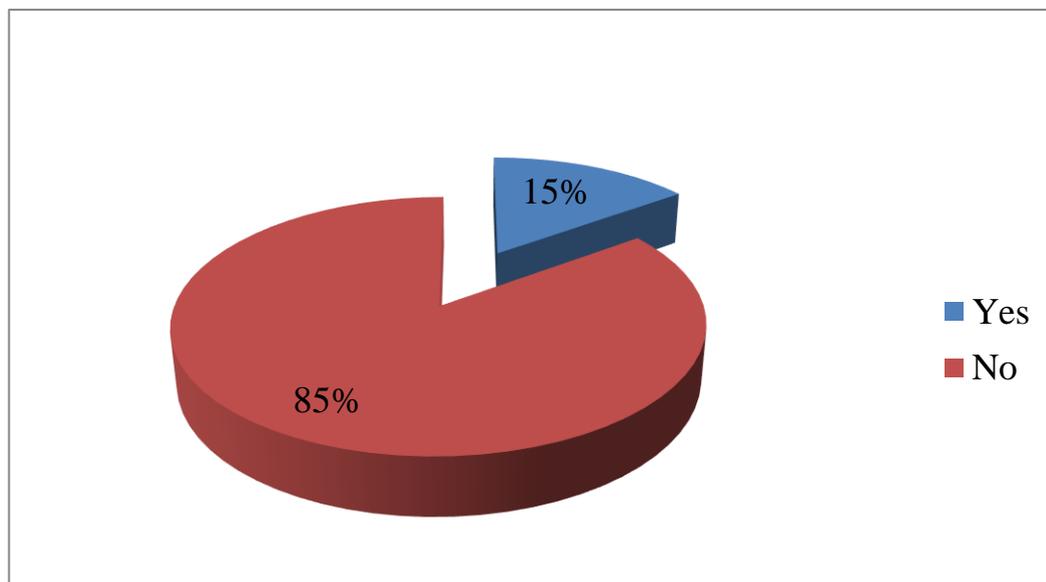


Figure (1) prevalence of short interspacing pregnancy.

Table (10) Relationship between the Obstacles of utilization Contraceptive Methods and selected socio-demographic characteristics

Obstacles	Occupational level	Mean rank	Sample size	Mann-Whitney	p-value
Cognitive barrier	Housewife	115.85	93	6403.50	0.03*
	Working	111.21	157		
Family barrier	Housewife	116.20	93	6436	0.01*
	Working	131.01	157		
Medical barrier	Housewife	119.89	93	6778.50	0.23
	Working	128.82	157		
Transportation barrier	Housewife	114.29	93	6258	0.04*
	Working	132.14	157		
Administrative barrier	Housewife	122	93	6975	0.53
	Working	127.57	157		

*Statistical significant differences.

Table (11) Relationship between the Obstacles of utilization Contraceptive Methods and selected socio-demographic characteristics.

Obstacles	Parity	Mean rank	Sample size	Mann-Whitney	p-value
Cognitive barrier	Primi	127.88	29	3135.50	0.80
	Multi	125.19	221		
Family barrier	Primi	96.97	29	2377	0.01*
	Multi	129.24	221		
Medical barrier	Primi	101.12	29	2497.50	0.01*
	Multi	128.70	221		
Transportation barrier	Primi	87.97	29	2116	0.002*
	Multi	130.43	221		
Administrative barrier	Primi	134.41	29	2946	0.45
	Multi	124.33	221		

*statistical significant differences.

Discussion:

Sharp declines in family planning visits and contraceptive use were also reported in Liberia, Sierra Leone and Guinea during the Ebola outbreaks and six months after the epidemic, suggesting that the epidemic had sustained negative effects on reproductive health (**World Health Organization, 2020**). Women should have the choice of multiple contraceptive methods including not only pills, injectable and barrier methods, but also long-acting methods such as IUCD, implants and sterilization (**Ontiri et al., 2019**). The study aimed to assess the obstacles of contraceptive utilization methods among women during COVID-19 Outbreaks. Findings of the current study are discussed within the following frame of references, first section socio-demographic, and the second section illustrates complications of the contraceptive in the third sections and obstacles of contraceptive utilization illustrate in the third section.

Section I: Description of socio-demographic characteristics.

The results of the present study indicated that, the mean age of the sample was 30.43 ± 6.71 year's old. This result agrees with **Bolarinwa et al., (2019)** who conducted a study about knowledge and factors influencing long acting reversible contraceptive use among women of reproductive age in Nigeria and reported that the mean age of respondents was 31.3 years. On the other hand, **Bikorimana, (2015)** who studied barriers to LARCs usage among married women of reproductive age in Rwanda and observed that nearly half of women were in the age group 18- 25 years.

The results of the present study indicated that more than one third had secondary school. This finding in the same line with **Bolarinwa et al., (2019)** found in their study that nearly half of women had secondary education.

The results of the present study indicated that more than half of the sample was from rural areas. The results are supported with **Bolarinwa et al., (2019)** who found that 41% of women resided in rural areas. This finding disagrees with Gad et al., 2021 who studied "The Current Barriers and Management Strategy to Increase the Use of Long Acting Reversible Contraception Methods" and found that more than three quarters of women were residing in rural areas.

The results of the present study revealed that about two thirds of women working. This finding matches with **Azmoude et al., (2017)** study about factors affecting the use of long-acting and permanent contraceptive methods among married women of reproductive age in east of Iran. They found that nearly three quarters of women were housewife.

The results of the present study indicated that less than half of the study sample is used non-hormonal contraceptive, while, the remaining used nature contraceptive. From the researcher's point' of view, this reflected the awareness of women with many methods and utilization from different methods of contraceptives methods and most woman in Egypt believe in safety of IUD due to its long duration and not need more concentration. This finding is supported with **Badia et al., (2019)** that studied effect of cell-phone assisted postpartum counseling on the use of long acting reversible contraceptives in Assiut, Egypt and reported that women in the study group were used IUD, injection and implants. On the other hand, **Eshak et al., (2018)** study in Minia, Upper Egypt, reported that injections were the most frequently ever used methods.

The results of the current study showed that the contraceptive don't affect marital status among most of women; also, all of them were safe and very effective used. From the researcher's point' of view this is reflected different perception of women toward contraceptive methods. and satisfaction with using these methods. These results go on the same line with **Ushma et al., (2017)** who conducted study about "Effects of relationship context on contraceptive use among young women" and reported that contraceptive use among majority of women not affected their marital status.

The findings of the present study indicated that, protective measures as follow in MCH as; more than half never used sanitizer and availability of mask. This is reflected neglecting of implementing protective measures, the cause that women not utilized from contraceptive due to lockdown or fear of infection. In addition, with the restrictive measures imposed on public movement, women might not be able to access family planning services, especially if such services are not deemed essential. This finding agrees with **Hager et al., (2020)** who

conducted a study about "Knowledge, attitude, and perceptions towards the 2019 Coronavirus Pandemic" and reported that use of protective measures was lower among participants.

Section II: Complications of the contraceptive.

The findings of the present study indicated that, complications of contraceptive methods as; blurred vision, decrease sexual desire. While, complications from prolonged used as; weight gain, occurrence of bleeding, and had anemia. These results go on the same line with **Gayatri, (2020)** who conducted study about "The Utilization of Long - Acting Reversible Contraception and Associated Factors among Women in Indonesia" and found bleeding was reported more among IUD and injectable users.

The results of the present study revealed that the reasons for stopping family planning methods, it was observed that women reported the reasons were desire to get pregnancy. From the researcher's point' of view, this is reflected the desire of women in Egypt prefer to stop of family planning to get more children which may result from husband and family needs for more children. The previous result is consistent with **Egypt demographic and health survey (2014)** which reported that the causes of contraceptive discontinuation within 12 month of FP method use.

The results of the present study revealed that majority of the sample reported that they had enough information and information regard advantage and disadvantage for utilizing contraceptives methods. This result is in the same line with a study conducted by **Bikorimana, (2015)** and found that most women were aware of modern contraceptives. On the other hand, **Farrag et al., (2020)** in Dakahlia who studied Practice of Family Planning among Married Female Attendants to Shawa Family Health Unit and found that cognitive barriers were the main barriers. That may be due the different in culture and education level among woman which increase level of awareness about family planning

Section III: obstacles of contraceptive utilization illustrate in the third section.

The results of the present study revealed that majority of women reported family barrier, medical barrier, transportation barrier, and administrative barrier. The same results are reported by **Storey & Boulay, (2016)** who found that cultural and demographic barriers were the main barriers that lead to not using/discontinuation of FP methods in one Egyptian study. This result is also, in the same line with a study conducted by **Evans et al., (2017)** titled with "The fertility effect of catastrophe: U.S. hurricane births" who found that going out to procure a contraceptive could be relatively difficult because of limitations in access to health services caused by the lockdown, and also because of the fear associated with the risk of acquiring the infection when venturing out of the house. This could lead to a

reduction in contraceptive utilization and a potential surge in unintended and unplanned pregnancies.

Fear of contracting the virus might discourage women and couples from going to health centers or pharmacies to get contraceptive supplies, even when they could physically reach health providers. Border closures and disruptions to procurement and in supply chains might substantially reduce the availability of contraceptive commodities in many countries, which often experience stock-outs even during normal situations.

The present study findings reported that, there is no relationship between cognitive barrier, family barrier, medical barrier, transportation barrier administrative barrier and the level of education ($p > 0.05$). This finding is not in agreement with **Storey & Boulay (2016)** who conducted a study about "Improving family planning use and quality of services in Nepal through the entertainment-education strategy" and found a significant relationship between current woman's education and husband's education, and both cognitive barriers and barriers related to the method.

Conclusion:

Based on the results of the current study and research questions, there are many obstacles of utilization of contraceptive methods as acting methods and cognitive barriers were the main barriers for utilization.

Recommendation:

In the light of the findings obtained from the current study, the following recommendations were suggested:

It is important to choices and explores possible solutions, as innovative telemedicine and tele-nuring or internet apps and messages on mobile phone for counseling services. As well, increase portable or movable family planning service to accommodate during COVID-19.

Governments should consider relaxing restrictions on the maximum quantities (cycles) of short acting contraceptives dispensed to users to avoid frequent repeat visits.

Health systems need to be prepared to meet an increased demand for emergency contraception, as a result of unplanned sexual activities.

Governments may consider promoting long-acting reversible contraceptive methods, as implants, that do not require frequent replenishment and can withstand pressures of supply chain weaknesses.

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ملخص البحث

تقييم معوقات استخدام وسائل منع الحمل بين النساء خلال فاشيات COVID-19.

مقدمة: يعد الوصول إلى تنظيم الأسرة (FP)، وجودة الرعاية، واستكشاف العقبات التي تحول دون الاستفادة من الخدمات من العوامل الرئيسية في اعتماد واستمرار استخدام وسائل منع الحمل في مصر، وقد أثرت إجراءات الإغلاق الصارمة COVID_19 وتعليق وسائل النقل العام على الوصول إلى الرعاية الصحية في مصر. القطاعين العام والخاص، ومحدودية الوصول إلى الخدمات.

الهدف من هذه الدراسة: هو تقييم معوقات استخدام وسائل منع الحمل بين النساء خلال فاشيات COVID-19.

تصميم البحث: تم استخدام تصميم البحث الاستكشافي الوصفي لتحقيق هدف هذه الدراسة الحالية.

مكان البحث: أجريت الدراسة في مركز صحة الأم والطفل والعيادة الخارجية لأمراض النساء والتوليد بمستشفى جامعة بني سويف، مصر.

عينة البحث: عينة هادفة من 250 سيدة. تم اختيارهم طبقاً للمواصفات التالية وهي: النساء في سن الإنجاب (18-49) سنة. بغض النظر عن وسائل تنظيم الأسرة التي تستخدمها، وعلى استعداد للمشاركة في الدراسة. تم استبعاد النساء اللواتي لم يرغبن في المشاركة في هذه الدراسة ولديهن أي مرض نفسي.

الأدوات: تم استخدام ثلاث أدوات؛ استبيان المقابلات، والعوائق التي تحول دون استخدام وسائل منع الحمل أثناء نقشي (COVID-19)، ومضاعفات استخدام استبيان أساليب تنظيم الأسرة.

النتائج: استكشفت الدراسة الحالية الأنواع المختلفة من عوائق استخدام وسائل تنظيم الأسرة خلال إجراءات الإغلاق الصارمة بسبب وجود فيروس كورونا COVID-19 مثل؛ كانت العوائق العائلية والطبية وعوائق النقل هي العوائق الرئيسية التي أدت إلى عدم استخدام / التوقف عن وسائل تنظيم الأسرة بالإضافة إلى ذلك، كان هناك فرق كبير بين العائق الأسري، والطبي، والعائق المتعلق بالنقل. كما ان هناك العديد من العوائق التي تحول دون استخدام وسائل منع الحمل مثل عدم كفاية عدد العاملين والموظفين في مركز صحة الأمومة والطفولة، وعدم وجود أدوية ووسائل تنظيم الأسرة، والتي تشير إلى العوائق الرئيسية لاستخدامها

التوصيات: من المهم اختيار واستكشاف الحلول الممكنة، مثل تطبيقات التطبيب عن بعد أو تطبيقات الإنترنت والرسائل المبتكرة على الهاتف المحمول لخدمات الاستشارة. كذلك، زيادة خدمة تنظيم الأسرة المحمولة أو المنقولة لاستيعابها أثناء COVID-19. يجب إعداد النظم الصحية اللازمة لتلبية الطلب المتزايد على وسائل منع الحمل الطارئة، نتيجة للأنشطة الجنسية غير المخطط لها. • قد تنظر الحكومات في تعزيز وسائل منع الحمل طويلة الأمد مثل كبسولات تحت الجلد والتي لا تتطلب زيارات متكررة إلى وحدات تنظيم الأسرة.