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Knowledge, attitudes, and practices of family planning and contraceptive methods among woman of reproductive age in Jeddah, Saudi Arabia - 2020 - a cross-sectional study

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Abstract

Background:

Family planning is a regulation of pregnancy spacing by using contraceptive methods. It plays an enormous role in enhancing women's and children's health as well as controlling the population's growth. What is not yet clear is the degree of understanding and usage of family planning methods among females. Therefore, this study aims to assess the level of knowledge, attitudes, and practices of family planning and contraceptive methods among the females of reproductive age in Jeddah, Saudi Arabia.

Methods:

This study is a descriptive, cross-sectional study using pre-designated questionnaire among women of reproductive age who live in Jeddah, Saudi Arabia, from July to September 2020. The sample was randomly selected, and those who met the inclusion criteria asked to fill a questionnaire survey. The data was collected then analyzed with SPSS.

Results:

The total responses 689, The mean age of our sample was 34.8 (\pm 9.04), and most of them were in the age group 21-25 (21%). Furthermore, 67.6% had a moderate level of knowledge about contraceptive methods. A good majority of the participants (69.6%) had agreed that contraceptives protected the family and the community's health.

Conclusion:

This study found a strong relationship that demonstrates the impact of awareness and knowledge on attitude, practice of family planning, and contraceptive methods for limiting the offspring's number and spacing pregnancies. Also, it highlights the need for woman's education programs. The results of the study will help physicians promote family planning services in Jeddah.

Keywords:

Family planning, Contraception, Reproductive age, Saudi Arabia.



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Introduction:

Family planning (FP) is the couple's settlement about the desired number of offspring and the regulation of pregnancy spacing by using various contraceptive methods. 1 It plays a significant role in improving women's and children's health as well as controlling the growth of the population. 2,3 FP acts as a critical factor in avoiding social, financial, and health consequences resulting from unnational pregnancies 4; besides, it prevents abortions and sexual disease transmission. 5

There are several ways to classify the methods of family planning; the classical method is divided into withdrawal and rhythm and contraceptive utilization. The newer methods are divided into three classes: short-term contraceptive methods (oral pills, injectable, male and female condoms, foam tablet, and cervical cap) and long-acting reversible contraceptive methods (intrauterine contraceptive device and Implants), irreversible surgical methods (tubal ligation for females and vasectomy for male). 6 In Saudi Arabia (SA), the most common contraceptives used are oral and intrauterine contraceptives. 7–9

Multiple factors contribute to the utilization of contraceptive methods in SA, such as maternal age, the number of children, educational level, economic status, and family size. 10–13 In the past few years, a marked increase in the usage of contraception in developing countries resulted in a 40% reduction of maternal mortality, which then contributed to reduced percentages of unintended pregnancies. 14 According to the World Health Organization (WHO) list, there are various reasons for people to lack the motivation in FP, such as a shortage in numbers of facilities to contraceptive methods, lack of awareness about the possible side effects by depending mostly on the limited viewpoint of the society, and the provider bias that is linked to decreasing the quality of provided education about the subject's aspects. 15In SA, the birth rate in 2020 is 17.097 births per 1000 people, compared to 2019, the birth rate in 2020 has declined by 2.65%. 16

A cross-sectional study conducted in Suva, Fiji showed that almost half of the participants had a right level of knowledge; half had a high level of attitude, and almost ten percent had a high level of practice towards family planning. 1

Another, a cross-sectional study that was conducted in southeast India, showed 75% of contraception awareness. The correct practice was only reported in 34% of the population due to lack of knowledge, male baby desire and, a husband's pressure. 17 Moreover, a cross-sectional study was done in Ethiopia showed that all the participants had heard at least about



one type of contraceptive based mainly on health workers; however, about 36.1% believe contraceptives are harmful while 39.8% conceive the use of contraceptives cause infertility. 18 Lastly, in 2020 a cross-sectional study was done in SA that concluded that 32.2% of participants had used contraceptives while 45% are currently using contraceptives, and about 22.8% non-users on the other hand. 10

To date, there are a limited number of studies that took place in Jeddah, and there is a gap in the knowledge of contraception utilization. 19 Previous studies published in Saudi Arabia didn't investigate women's attitudes and practices with different types of contraceptive methods 20,21, which is the focus of our study. Therefore, this paper aims to identify the level of knowledge, attitude and practices of family planning and contraceptives method among females of reproductive age in Jeddah, SA

<u>Methodology:</u>

A descriptive cross-sectional study was conducted randomly in Jeddah, Saudi Arabia, for a period from July 2020 to September 2020. This study was approved by Dr. SolimanFakeeh Hospital Scientific Research Review Committee (DSFH IRB). A total number of 1088 responses were received. After the exclusion, only 689 were included, for this study, the target population was females in their reproductive age, excluding all non-married females and females older than 55 years old individuals the sample was selected from different regions in Jeddah, Saudi Arabia, to answer the questionnaire. The study questionnaire was adapted from a validated survey that was previously used in Suva, Fiji. 1 The survey was translated into Arabic and subjected to a process of forward and backward translation. All participants acquired written, informed consent to join this study. All the information in this study was confidential, and only authorized personal had access to the subject's data. The survey was legally permitted and socially accepted. The pre-tested questionnaire consisted of four sections:

Section 1: Socio-demographic profile

Section 2: Knowledge-based section with 12 questions, the participant had an option to answer (Yes/No and I do not know). For coding the incorrect answer, which is (No) = (0), the correct answer, which is (Yes) = (2). An answer with (I do not know) = (1) and total points to be scored = 24 and the minimum score = 0. The correct answers were quantified as 0-11 as poor knowledge, 12-18 as moderate knowledge, and 19-24 as good knowledge.

Section 3: Attitude assessment based on a Likert Scale scoring system consisting of 15 questions Section 4: Results of the participant's family planning practices.

Data entry was performed by using Microsoft Excel 2019 and processed by Statistical Package for the Social Sciences (SPSS) software, version 21 (IBN, Armonk, NY, USA). Mean, and the standard deviation was calculated to describe continuous variables, while frequencies were used for categorical variables. A Chi-square test was used to identify the differences and associations between categorical variables. One way ANOVA was used to identify the differences and



associations between continuous variables. An alpha level less than 0.05 was considered statistically significant.

<u>Results:</u>

This paper aims to determine the level of knowledge, attitude, and practices of family planning and contraceptive methods among females of reproductive age in Jeddah, Saudi Arabia. Initially, a total of 1088 responses were received; from different regions in Jeddah, and only 689 (63%) were validly included. The mean age of our sample was 34.8 (\pm 9.04), and most of them were in the age group 21-25 (21%). The majority of subjects are Saudi, 586 (85.1%), with around (56.2%;387) of the participants are from the north part of the city. More than half of the participants were non employed (60.5%;417). Moreover, a large proportion of the participants had a bachelor's degree or above (81.3%;560). Four hundred forty-three (64.3%) of the participants have between zero to three children (Table 1).

The vast majority of participants (98.3 %) have heard of certain forms of contraceptives in their life. Only (15.5 %; 107) of the participants were aware that birth control pills are ineffective if a woman avoided taking them in a row for two or three days.

Over one third (37.3%) were unaware that (the only way to prevent pregnancy is female sterilization (tying fallopian tubes). In contrast, a large percentage of the participants (98.5%) agreed that health education was important for women who want to utilize contraception. A large number of participants (75.5%;520), agreed that contraceptive pills did not provide 100% protection, as well as (58.3%;402) were aware that condoms prevent Sexually Transmitted Infections (STIs).

Also, most of the participants (90.9 %) had previous knowledge that contraceptive pills caused side effects of mood swings and weight gain. Around one third (37.6%; 259) of participants who used contraceptive oral estrogen-containing pills knew about the increased risk of breast cancer.

Surprisingly (59.2%;408) of participants do not know that using the pill increases the risk of ovarian, endometrial, or cervical cancer. Likewise, a large number of the participants (66.6%;459), did not know that an intramuscular injection Depo Provera contraceptive shot must are administered on a three-monthly basis. A good majority of the participants (75.8%;522), are knowledgeable about the possibility of changing the contraception method in case of experiencing undesirable side effects. More than two-thirds (72.7%;501), did know that combined methods (both a condom and a contraceptive pill) are considered very successful contraception (Table 2). \Box According to the knowledge score, two-thirds of the participants had moderate knowledge (67.6%;466), almost a third had good knowledge, 217(31.5%), and only six (0.9%) had poor knowledge.

There was no statistically significant relationship (P=0.135) between the categorical knowledge score of the participants and the number of visits to a health center for family planning services.



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The Likert Scale scoring system consists only of responses of "Agree or Strongly Agree," which are combined to show the total percentage to each question of the participants' answers that are displayed in table 3. Around two-thirds of the participants (70.1%;483) agreed/strongly agreed that contraceptives should be used to limit a woman's number of children. Likewise, a large majority of the participants (89.6%;617) agreed/strongly agreed that contraceptive use was necessary to control the time interval between the childbirths. A majority of the participants (74.2%;511) agreed/strongly agreed that spacing allows for healthier children. More than three quarters (83.6%;576) agreed/strongly agreed that the ideal age of a woman's childbearing age is 20-30. Around seventy percent (67.3%;464) of the participants agreed/strongly agreed that the ideal number of children is between 3 and 5. A majority of the participants (77.8%;536) agreed/strongly agreed that contraceptives provided a sense of safety. For participants on contraceptives(72.3%;498) agreed/strongly agreed that the type of contraceptive method they were using was adequate.

Roughly, half of the participants(56.1%;387) agreed/strongly agreed that contraceptives benefited males. On the other hand, only a minority, 56 (8.1%), of the participants thought that discussion of contraceptives with their spouses was embarrassing. Furthermore, a small fraction of the participants, 70 (10.2%), mentioned that their spouse disapproved of their use of contraceptives. A predominant number of participants (69.6%;479) believed that contraceptives protected the family and the community's health. Religion played a minor role in a woman's decision to use contraceptive in only one-third of the participants (28.4%;196), in contrast to the cultural beliefs(40.1%;276). A good number of the participants felt that the husband's objections had influenced their spouse's decision to use contraceptives (65%;448). Also, the one-way ANOVA revealed a significant relationship between the number of children and the husband disapproving of the use of contraception (p = 0.001). There was a significant relationship (Pvalue=0.006) between the parity and the adequate type of contraceptive method they were using.

Regarding family planning consultation in medical centers, the results showed that around onethird of the participants have never consulted a healthcare provider (38.5%; 265). More than half of the participants always use contraception to prevent unplanned pregnancy (55%; 385). While (59.1%; 407) of the participants always use contraception to prevent pregnancy, only a small fraction (10%; 70) of participants have unintended pregnancies due to lack of contraception. A minority of participants (16.3%; 112) use different contraception methods, and (12.9%; 89) of participants change their contraception from time to time. Almost one-third of the participants (31.6%; 218) practice the traditional methods (Table 4). Chi-square test showed a significant relationship between unplanned pregnancy and adequacy of methods with (0.001) pvalue. There was a significant relationship between the number of visits to health centers for family planning services and their level of knowledge that contraceptive methods maintain family and community health (p=0.001).



Table 1: Demographic profile of the participants

Variable	Frequency	Percentage
	1	-
	less than 21(5)	0.7
Age	21-25 (145)	21
	26-30 (115)	16.7
	31-35 (110)	16
	36-40 (121)	17.6
	41-45(97)	14.1
	46-50(73)	10.6
	51-55(23)	3.3
Nationality	Saudi (586)	85.1
	Non-Saudi (103)	14.9
Region	North (387)	56.2
	West (57)	8.3
	East (106)	15.4
	South (139)	20.2
Marital status	Married (650)	94.3



Divorced (35)	5.1
Widow (4)	.6
Employer (272)	39.5

Employment status	Non-employer (417)	60.5
Educational land	Bachelor's or above (560)	81.3
Eaucational level	high school (115)	16.7
	secondary school(9)	1.3
	primary school degree(1)	.1
	Illiterate (4)	.6
Number of children	0-3 (443)	64.3
	4-7 (228)	33.1
	8-10 (18)	2.6

Table 2: Frequency of responses on knowledge-related questions.

Questions (n=689)	Respons es	N	%
1. Have you ever heard of contraceptives	Yes	677	<i>98.3</i>



No	9	1.3
I don't know	3	0.4
Yes	107	15.5

2. Birth control pills are effective even if a woman misses	No	401	58.2
days in a row.	I don't know	181	26.3
3. Female sterilization is one way	Yes	194	28.2
to avoia pregnancy.	No	257	37.3
	I don't know	238	34.5
4. Health education is important for women who want to use	Yes	679	98.5
contraception.	No	3	0.4
	I don't know	7	1.0
5. Contraceptive pills do not	Yes	520	75.5
guarantee 100% protection.	No	118	17.1
	I don't know	51	7.4
6 Condoms provent STIs			
0. Condoms prevent 5115.	Yes	402	58.3



	I don't know	180	26.1
7. Common side effects of contraceptive pills include mood swings and weight gain.	Yes	626	90.9
	No	16	2.3
	I don't know	47	6.8
	Yes	259	37.6

8. There is an increased risk of breast cancer in women taking estrogen-	No	79	11.5
containing contraceptives.	I don't know	79 a't 351 w 211 19 a't 459 w 522 32	50.9
9. Women using the birth control shot (Depo Provera)	Yes	211	30.6
must get an injection every three months.	No	19	2.8
	I don't know	459	66.6
10. If a woman is having side effects of one kind of contraceptive pill, switching to another type might help	Yes	522	75.8
anoiner type mignt netp.	No	32	4.6
	1	1	



	I don't know	135	19.6
11. Using both a condom and the pill is considered to be a very effective contracentive.	Yes	501	72.7
ejjective contraceptive.	No	53	7.7
	I don't know	135	19.6
12. Using the pill increases a woman's risk of ovarian,	Yes	155	22.5
endometrial, or cervical cancer.	No	126	18.3
	I don't know	408	59.2

Table 3: Frequency of responses on attitudes-related questions.

Attitudes (n=689)	Strongly Agree	Agree		Neutral		tral Disagre e		Strongly Disagree		Total	
	n	%	n	%	п	%	п	%	п	%	N (%)
1. Contraceptives should be used to limit my number of children.	229	33. 2	25 4	36. 9	11 9	17. 3	69	10. 0	18	2.6	483 (70.1)
2. Contraceptiv es should be used to increase the	334	48. 5	28 3	41. 1	55	8.0	15	2.2	2	0.3	617 (89.6)



time interval between my childbirths.											
3. Spacing will allow a child to be healthier.	294	42. 7	21 7	<i>31.</i> 5	12 7	18. 4	45	6.5	6	0.9	511 (74.2)
4. The ideal age of having a first child is 20- 30.	329	47. 8	24 7	35. 8	<i>79</i>	11. 5	32	4.6	2	0.3	576 (83.6)
5. The ideal number of children should be between 3-5.	229	33. 2	23 5	34. 1	14 6	21. 2	63	9.1	16	2.3	464 (67.3)
6. Contraceptives provide a sense of safety.	225	32. 7	31 1	45. 1	83	12. 0	63	9.1	7	1.0	536 (77.8)
7. The method of contraception I am using is adequate.	206	29. 9	29 2	42. 4	14 3	20. 8	40	5.8	8	1.2	498 (72.3)
8. Contraceptives benefit males too.	109	15. 8	27 8	40. 3	18 0	26. 1	10 3	14. 9	19	2.8	387 (56.1)
9. Discussion about contraception with a spouse is embarrassing.	23	3.3	33	4.8	39	5.7	31 0	45. 0	284	41.2	56 (8.1)
10. My husband does not approve my use of contraceptives.	20	2.9	50	7.3	11 7	17. 0	26 9	39. 0	233	33.8	70 (10.2)



11. Contraceptive methods can protect the health of family	185	26. 9	29 4	42. 7	14 6	21. 2	52	7.5	12	1.7	479 (69.6)
and community.											

12. Religious beliefs can prevent women from using contraceptives.	62	9.0	13 4	19. 4	17 6	25. 5	23 3	33. 8	84	12.2	196 (28.4)
13. Cultural beliefs can prevent women from using contraceptives.	59	8.6	21 7	31. 5	14 3	20. 8	19 7	28. 6	73	10.6	276 (40.1)
14. Husband's objections to contraceptives can prevent women from using contraceptives.	96	13. 9	35 2	51. 1	10 6	15. 4	10 6	15. 4	29	4.2	448 (65)
15. Change in male attitudes on contraceptives may improve contraceptive use.	166	24. 1	33 2	48. 2	13 1	19. 0	56	8.1	4	0.6	498 (72.3)

 Table 4: Frequency of responses on practice-related questions.

Practices questions (n=689)	Always		Usually		Sometimes		Seldom		Never		Total
	N	%	N	%	N	%	N	%	N	%	N (%)
1- How many times a year do you visit a	43	0.062	75	0.109	132	0.192	174	0.253	265	0.385	689 (100%)



health center for family planning services?											
2- Do you use contraceptives to prevent unplanned pregnancy?	385	0.559	129	18.7	62	0.09	34	0.049	79	0.115	689 (100%)
3- Have you ever had any unplanned pregnancy due to lack of contraceptive use?	70	0.102	71	0.103	144	0.209	131	0.19	273	0.396	689 (100%)
4- Do you use contraceptives every time when you do not intend to get pregnancy?	407	0.591	96	0.139	63	0.091	35	0.051	88	0.128	689 (100%)
5- I use different types of contraceptive s	112	16.3 %	77	11.2 ٪	125	18.1 %	145	0.21	230	0.334	689 (100%)
6- My current method of contraceptive changes from time to time	89	12.9 %	118	17.1 %	125	18.1 %	126	18.3 %	231	33.5 %	689 (100%)
7- Do you practice any traditional contraceptive methods?	218	31.6 %	84	12.2 %	115	16.7 %	76	11 %	196	28.4 %	689 (100%)



Discussion:

In this study, we aimed to address and identify the current level of knowledge, attitudes, and practices of family planning and contraceptive methods among the females of reproductive age in Jeddah, Saudi Arabia.

The results have stated that 98.3% of the participants have heard of contraception at one point in their life. However, 67.6% had a moderate level of knowledge about the contraception methods, as several previous studies in Saudi Arabia have shown.^{12,22–26}

Most participants had adequate levels of knowledge; for instance, a large majority were sufficiently aware that missing contraceptive pills for more than 2-3 days in a row would result in pregnancy. Moreover, they were knowledgeable about using condoms to prevent STDs as well as the common side effects of contraceptive pills, such as mood swings and weight gain. 20,27

The importance of knowing the source of information was highlighted in a study that conducted previously in SA in 2019 showed that (58.5%, n=3022) of females depends on the Internet as the primary source, followed by healthcare physicians (45.1%). At the same time, a lesser fraction of the participants get their information from their partners (10%) and social media (17%).²⁷

However, the results of this study show that the level of knowledge is not reflective of the number of visits to a health center for family planning services, and 98.5% show an interest in the importance of contraceptive education. Additionally, health care providers do not do their expected role in improving family planning awareness, and the family was the fundamental wellspring of information (51.8%).^{22,27}

Also, a study was conducted in AlJouf, a region on the Northern side of Saudi Arabia, reported that the most common contraceptive methods used in Saudi Arabia were oral contraceptive pills (71.2%) and intrauterine contraceptives (23.5%).^{10,20,24,28} There is still considerable room for physicians to make further progress in determining the appropriate approaches to educating women about contraception. Regarding female sterilization, there is a lack of awareness as one-third of (37.3%) of our sample are unaware of female sterilization. This result was consistent with another study that was held in Abha, a city in the southern region in Saudi Arabia by Al-Musa HM et al. Showed that (77.0%) of there population was unaware of female sterilization.²² All these finding points toward the importance of the physician's role in increasing the knowledge of all kinds of contraceptive



methods as the awareness did not show an improvement. Similar results were reported in a study done in 1988 in Riyadh that reported knowledge about female sterilization accounted for only 0.9%.²⁹

Saudi society is often religious and conservative. The results appear compatible with this approach, as it demonstrates a clear inverse relationship between the holding of strict religious views and the use of contraceptives. Furthermore, there is a high incidence of legalized polygamy in Saudi society, and men are proud to have more children in this culture, prompting women to have more children to sustain their marital relationship, an obstacle to contraceptive use in this population.³⁰ Therefore, the study finds a significant relationship between the

number of children and the husband's disapproval of the use of contraceptives, that affects the woman's decision, health as well as community and children's health in general as the results have shown a statistically significant relationship between religion and using contraceptives to aim a limited number of children. The current study participant reported that having 3-5 children as the ideal number (34.1%).

In contrast, a study done in Al-Qassim, a city in the central region in Saudi Arabia, by Al Sheeha M showed that most of their participants preferred to have 5 to 10 children (70.0%), and nearly one fourth (23.3%) to have more than ten children, while only 4.8% of women desired less than five children.¹² Also, Al-musa HM et al. reported that 45.5% of the participants preferred 4 to 5 number of children.²²This difference in the desired number of children is attributable to the various cultural beliefs between the regions in Saudi Arabia.

During the last years, the Saudi community experienced rapid changes in the socioeconomic pattern that has major effects on the improvements in women's education and employment, which played a significant role in changing fertility beliefs and behaviors.¹⁰ Therefore, the results showed a vast majority of the participants 74.2% had a positive opinion of the effect of spacing between pregnancies on the family, and it allows for healthier children, which indicates more tendencies to birth spacing with different contraceptive methods. On top of that, Al-musa HM et al. stated that the majority, 45.9% preferred interval of the pregnancy spacing to be 2–3 year²², and reported that spacing was significantly higher in younger age as compared to older age groups, which had a higher need for limiters (p < 0.001).³¹

This study shows that more than three quarters (83.6%) strongly agreed/agreed that the ideal age of a woman's childbearing age is 20-30. According to a study that was done in Jeddah in 2016, showed the differences



in utilization of contraceptives that it was evident that the majority (80.4%) of the females in the age group (34-44) had used contraceptives if compared to only (38.2%) of the females aged less than 25 years whoever used contraceptives.²⁰These reported variations in the percentages of females who used contraceptives according to their age groups were statistically significant p<0.05, which could be clarified by the fact that females at this age group are mainly newly married and willing to get pregnant.²⁰

In other aspects, a small fraction of people still rely on traditional methods as a way to prevent pregnancy. Al Sheeha M reported that 10.7% depending on the use of traditional contraceptive methods regularly, which divided into the three traditional methods mostly practiced were rhythm 4.0%, withdrawal 3.6%, and breastfeeding by 3.1%.¹² This study states that a higher number, almost one-third of the participants (31.6%), practice the traditional methods. The present study, as other studies, had several limitations; it is a crosssectional study design that has a recall-bias, and the majority of the participants live in the northern region in Jeddah. For that reason, we do not have a variety in distribution, and the survey was not spread to rural areas in Jeddah. Also, the knowledge, attitude, and practice were only evaluated for one of the couples, and there was not a comparison between males and females. Also, most of the included participants were highly educated, which don't represent the whole population.

Conclusion:

According to the previously mentioned result, we observed a strong relationship that demonstrates the impact of awareness and knowledge on attitude, the practice of family planning, and contraceptive methods for limiting the offspring's number and spacing pregnancies, which contributes to the health of the children, mothers, and community. Religions, cultural beliefs, and husband's disapproval are defining factors that impact the use of contraception use negatively. As for the practices associated with family planning in Jeddah, the lack of depth in awareness for the need for regular visits to the health centers for family planning services was found. Therefore, the physicians should raise awareness about this subject more frequently with female patients who could benefit from considering this choice. Moreover, since this study evaluated only the females, a study similar to this one should be carried out on including the males to compare as well as to promote healthy birth spacing by enforcing programs for family planning education.



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Conflicts of Interest:

The authors declare no conflict of interest.

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