

Prevalence and Determinants of Contraceptive Use among Saudi Women: A Descriptive National Study (2019)

Muna M Alawwad¹, Fahad A Alamri² and Samar A Amer^{2,3,4*}

¹Department of Obstetrics and Gynecology, Ministry of Health (MOH), Saudi Arabia

²Department of Family Medicine, Ministry of Health (MOH), Saudi Arabia

³Department of Public Health and Community Medicine, Zagazig University, Egypt

⁴Agency of Public Health, Ministry of Health (MOH), Saudi Arabia

Abstract

Background: Contraception is an effective mean of Family Planning (FP) and fertility control, promotes maternal and child health. It is interesting to explore the perception and use of contraceptives among Saudi women. So this study aims to determine the prevalence of contraceptives use (types), to study some determinants of the contraceptions used, to assess the availability and satisfaction of the family health planning services and to record their opinion about the current situation in KSA. This study will provide up-to-date situational analysis helping the health policymakers.

Methodology: A cross-sectional study targeting 1215 Saudi women who fulfilling the inclusion criteria. A Multi-stage sampling technique was used to randomly select women from Primary Health Care Centers (PHCCs) all over the 20 health regions in KSA. Using a well-structured pretested questionnaire composed of four main parts to collect the data after an exempt IRP approval and informed written consent. The data analyzed using the appropriate tests using the Spss program version 22.

Result: A wide age range (16-49 y) with the mean age of 37.5. The majority (56.7%) were university-educated or above, 93.1% were married. The prevalence of the current contraception use is 68.8%. The most common methods for contraception were OCP, IUD, coitus interruption and condom in order (42.1, 15.6, 7.8 and 5.7%) respectively. The main causes for using contraception is birth control 55.4%, don't want to get pregnant (31.2%) and medical causes (17.8%). The main sources used for contraception methods, were HCP, relatives, friends (38.2%, 36.5%, 21.8%) and bought from pharmacies, private clinics and then private hospitals (54.8%, 20.2%, 18.5%).

Conclusion: The contraceptive pills are the commonest contraceptive methods used among Saudi women. Appropriate strategies should be implemented to raise awareness and provide services.

Keywords: Contraception; Saudi women; Family Planning Services (FPS)

Abbreviations: Health Care Providers (HCPs); Birth Rate (BR); Family Planning Services (FPS); Companioned OCP; Intrauterine Device (IUD); Primary Health Care Centres (PHCC); Kingdom Saudi Arabia (KSA); Saudi Arabia (SA)

Introduction

Contraception is unique among medical interventions in the breadth of its positive outcomes. An effective means of Family Planning (FP) and fertility control promotes maternal and child health [1]. Its use reduces the number of high-risk pregnancies, lower the level of properly and improperly abortions and reduce the health problems of infants such as lower birth weight and higher mortality with facilitating spacing of births. Finally, Effective contraception improves the social and economic role of women in society [2].

Among the Saudi population, condom use is the second most commonly used method after pills, which matches the trend of developed countries, where Condoms and male sterilization are among the least used contraceptive methods [3]. The reverse is true in developing countries, where four modern contraceptive methods, oral contraceptives, IUDs, injectable and female sterilization are the most widely used methods among married women [4-6].

The use of contraceptives influenced by many factors, such as, health care workers support, spouses, males' support, views of other women, marital status, desire for more children, myths and misconceptions on

modern methods, socio-economic status of the women and accessibility [7-9].

Although current contraceptive methods are efficacious, safe and cost-effective [10-12], but most countries still have high contraceptive failure rates. So counseling and increased use of long-term reversible and irreversible methods have been effective in reducing failure rates [5].

Rational, Saudi Arabian community getting a rapid change in the socio-demographic pattern, especially the changes concerned with women's health style, work and education, which consequently change their attitude toward family planning and the use of contraceptives [3]. Various global and local organizations, private sectors and governments still aiming to maximize contraceptive use [13].

Aims

- To determine the prevalence of contraceptives use (types)

***Corresponding author:** Samar A Amer, Associate Professor, Department of Public Health and Community Medicine, Zagazig University, Egypt; Tel: +966561428493; E-mail: dr_samar11@yahoo.com

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- To assess the availability and satisfaction of the family health planning services
- To record their opinion about the current situation in KSA

Methodology

A period of cross-sectional study, targeting 1215 Saudi women whom fulfilling the inclusion criteria, aged 15-<50 y and without any mental or psychological disorders. Attending Primary Health Care Centers (PHCCs) all over the 20 health regions in Kingdom Saudi Arabia (KSA).

Sampling methods

Multi-stage sample, the sample size was calculated using the Open Epi web. Saudi females aged between 15-50 y were 5070470 in Saudi Arabia. With 95% confidence interval and using a prevalence about 44.8% of contraception among Saudi women to be 620 participants will be doubled for the design effect to be 124, then proportionally divided into all 20 regions all-overs KSA, proportionated to the total no. of females in each region (with a minimum no. of 60 females from each region), then divided to represent different cultural levels to, PHCCS inside the town: PHCCS outside the town (3:1) or (2:1) according to the females distribution in each health region [3].

Data collection instrument

Using a well-structured pretested pre-coder and an Arabic questionnaire, the data collected during January and February 2019 composed from four parts. The first part includes, demographic information e.g. the age, educations, occupation, monthly income marital status. The second part includes, the obstetric history and prevalence of contraceptive use and the used type of contraceptive. The third part includes, some determinants of contraception use e.g. counselling, knowledge, intention, motivation and Attitude). The fourth part include, assessing the accessibility and the current situation among Saudi females to the usage of contraceptives.

The data collection was collected by a well-trained Health Care Providers (HCPS), through systematic random sample (started with the registared women number five then every fourth, until completing the sample size) to select women after selecting the PHC centers by multistage technique to collect the data as (PHCCS) facility based sample to represent women from all over the KSA (inside and outside the town).

Statistical analysis

Data was analyzed by using SPSS (version 20) and for quantitative data summarized mean, Standard Deviation (SD), median and range

Place	Sample size	Inside the town	Outside the town
Makkah	80*2	60 Such as (Hajj Street-Awali-Azizi-Mujahideen-plan of law)	20 Such as jjjum-Karana-one-Shamia-Assqan
Jeddeah	100*2	75 E.g (Majid-Naim-Salameh-an old airport	25 Such as (Shawak-Amm-Morgan
Taif	60*2	40 E.g (Vesaliah-Awadah-...)	The middle of the cornice - the Great Sail - its soil - time
Qunfudah	30*2	20 Such as Khalidiya-Sharqiyah	25 Mazeilif-one of Bani Zayed
Riyadh	250*2	175 E.g (Muroj-Suwaidi al-Gharbi - First Badr-Al-Dariyah - Northern Nasim	75 North Aqiq-Shakra-Al-Rawdah neighborhood-Khamisiyah - Mazahmieh
Madinah	65*2	45 Such as Khubiz, Odeid, Hamidiya, Bandar, and Shmeiri	20 Such as an ox-sourcing-amulet
Qassim	40*2	30 Shamasi-King Abdul Aziz-Asharqia-Eastern Dahi	10 khabera-khaseba-Qusayba
Eastern Province	90*2	60 Badr district 1-Khobar-Qdih-Ras Tanura	30 Aireh-Ateeq-Ain Dar Al Jadida
Hafr Al Batin	40*2	30 Abu Mousi-Azizia-Mohammadia	10 Zibbeh-patch
Hasa	30*2	20 His illustrious people-Khalaf-Khalidiya-Faisaliyah	10 Khreis-Faisalieh-Beren
ASSER	50*2	35 Abha-Nemis-Meet-Sira Obaid-Dars	15 Khomeh-Khamis Mutair-Tarbash-Jubail
Bisha	30*2	20 South of the city-sat Olaya-Bashayer-triangular	10 Afra-Khazmi-Naqie-Sabeeh
Tabuk	30*2	20 Back-Sliman-cut-kindergarten	10 Baysa-Bir Hermas
Hail	30*2	20 East-Badeh Park-West Park -Ajara	10 Shamli-Jabbah-ekaa -fekar
Northern borders	30*2	20 Khalidiya-Salhiya Middle-Rafha East or West	10 Such as(Rawdet Habash-shoawbaa)
Gazan	50*2	35 Sunday - Flight - Airport	15 Manshah-Regma-Homsa-Abu Aris
Najran	30*2	20 Bosom - Arissa-Rajala-Fahd South-North Fahd	10 Khalidiya-Al-Azazyiah-wadeaa-Sultan
Hollow	30*2	20 Abu Qasr-Dakar-markets and rain	10 Center of North Fayyad Tabargal
Quraysh	30*2	20 Vesalia-al Mozarei-Airport	10 Ghatti-Aqeelah-Issawih

Table 1: Shows the sample size distribution all over the KSA with numbers and PHCCs names examples.

were used. While frequency (F) and percentage (%) were used for qualitative data summarization. P-value ≤ 0.05 considered as significant and 95% of confidence interval, which is 80% the power of the study.

Ethical considerations

Participants got informed written consent before answering the questionnaire and their identity was anonymous. Besides, an exempt approval was taken from the ethical committee of the research center at King Fahad Medical City No. 18-407E on 8th August 2018.

Results

The respondent rate was 97.98%, the participants' detailed demographic data and obstetric history are shown in Table 1. A total of 1215 female participants adequately responded to the questionnaire. A wide age range was included from (16-49) with the mean age of 37.5 y. As regards the education level, the majority (56.7%) were university-educated or above, 93.1% were married of whom, only 12.1% had no children. The majority (63.4%) working but not in the medical field, 70% with sufficient outcome. About 20% visited the PHCC for ante or post-natal aims (Tables 1 and 2).

	(Mean \pm SD) F	(Range) %
Age (y)	37.9 \pm 9.7	16-49
The level of education		
Illiterate	59	3.9
Primary/(read and write)	116	8.8
High/Secondary	331	27.3
University or above	709	56.7
The occupation		
Not working (housewife)	446	36.7
Working in the medical field)	123	10.1
Working but not in the medical field	646	53.2
The income		
Insufficient	273	22.1
Sufficient	837	70.3
Sufficient and more	103	7.7
The marital status		
Widow	30	3.4
Not married	22	1.8
Married	1110	91.3
Divorced	53	4.3
Aim of PHCCs visit		
Antenatal care	231	17.5
Post-partum care	46	3.8
Other causes	938	77.2
The children (N=1193)		
Don't have	153	12.9
Median number of children	3	(0-7)
Age of last children (median)	1 y	(5 d-14 y)
Abortion history (N=1193)		
No history of abortion	998	83.7
Median number of abortions	1	(0-7 times)
The parous history (N=1193)		
No previous deliveries (p=0)	67	5.6
(nulliparous-multipara)	1101	94.3
The delivery method history(T=1139)		
Vaginal delivery	722	65.6
Caesarean section	165	14.9
Both	214	19.4

Table 2: Shows the socio-demographic data and obstetric history.

The prevalence of current contraceptive use among Saudi women living all over KSA was 74.7%. With a variation in length and use of each method, regards the history of contraception methods use among participants. 89.6% using oral contraception (mainly 38.7% less than 1 y), 28.5% using breastfeeding (mainly 71.4% less than 1 y) and 27.6% using intrauterine device (mainly 51.8% from 1 y to 3 y). Only about 3% reported pregnancy (failure rate) with the highest prevalence in safe period, then in coitus interruption. Out of the 25.3% whom never used contraception mainly due to medical causes, husband refusal and planning to get pregnant (35.5%, 31.9% and 24.4%). 41.9% of Saudi females reported that contraception has a positive effect on their health, 20.1% don't know, only 6.8% reported that it does not affect (Tables 3 and 4) (Figures 1 and 2).

As regards the main sources of knowledge about the used contraception methods in descending order were HCP, relatives, friends (38.2%, 36.5% and 21.8%). The majority of husbands (53.9%) support contraception use. The pharmacies, private clinics and then private hospitals (54.8%, 20.2% and 18.5%) were the main sources of the used contraception as in Table 5.

The prevalence of the current contraception use is 68.8%. The most common methods for contraception were OCP, IUD, coitus interruption and Condom in descending orders (42.1, 15.6, 7.8 and 5.7%) respectively. The main causes of using contraception are birth control 55.4%, don't want to get pregnant (31.2%) and medical causes (17.8%) (Table 6).

Figure 3 shows that the overall prevalence of the encountered and known contraceptive side effects is (74.04%). The most commonly encountered side effects were weight gain (49.0%), headache (34.8%) and mood swings (anxiety-stress) (30.5%). Interestingly, individuals with high school degree or less, reported significantly less contraceptive use ($p=0.03$, odds ratio=0.53, 95% CI=0.3-0.95) compared to individuals who had a master degrees or above. However, age, years of marriage and number of children were not shown to have any significant effects on contraception use among the participants (Figure 3).

As the regards, the participants' satisfactions with the provided FPS in PHCCs only about 33% of participants were satisfied with the FPS. About 45% reported that the tools or trained HCPs are unavailable. As regards to the Saudi's women assessment to the current situation in KSA, the majority (55.7%) reported that the BR should be the same.

	F	%
The prevalence of previous contraception use (1215)		
No	307	25.3
Yes	908	74.7
		From married 77.1
The causes of didn't use contraception method (T=307)*		
The husband refuses	98	31.9
Planned to get pregnant	75	24.4
Useless	13	4.2
Fear from Complications and hazards	55	17.9
Religious factors	12	3.9
Medical causes	109	35.5
Others (need to know more, psychological & social)	88	28.7
*multiple answers allowed		

Table 3: Shows the prevalence and some determinants of contraception use among Saudi females.

	Total F (%)	<1 y F (%)	1y-<3y F (%)	3-5 y F (%)	>5 y F (%)	Pregnancy rate F (%)
The oral contraception pills	814 (89.6)	315 (38.7)	255 (33.13)	38 (4.7)	30 (3.7)	3(0.4) From pregnancies=8.3
Don't know its type (263=32.3)						
Companied OCP (148=18.2)						
Progestin only OCP (403=49.5)						
Intrauterine device (IUD)	251 (27.6)	76 (30.3)	130 (51.8)	23 (9.16)	22 (8.76)	6(2.4) From pregnancies=16.7
Injection	49 (5.4)	40 (81.6)	7 (14.3)	2 (4.08)	0 (0.00)	1(2.04) From pregnancies=2.7
Patches	96 (10.6)	73 (76.04)	21 (21.88)	1 (1.04)	1 (1.04)	2(2.08) From pregnancies=5.6
condom	194 (21.4)	130 (67.0)1	44 (22.68)	11 (5.7)	9 (4.63)	0 (0.00)
Ligation	5 (0.6)	3 (60.00)	2 (40.00)	0 (0.00)	0 (0.00)	0 (0.00)
Safe period	169 (18.6)	106 (62.72)	36 (21.3)	13 (7.69)	14 (8.28)	9 (5.3) From pregnancies=25.
The withdrawal method (coitus interruption)	240 (26.4)	140 (58.33)	62 (25.8)	15 (6.25)	23 (9.58)	8(3.33) Pregnancies=22.2
Others (natural herbs-breastfeeding-amenorrhea+vaginal washes)	287 (3.1)	200 (69.70)	83 (28.9)	4 (1.3)	0 (0.0)	7(2.43) Pregnancies=19.44
Total number per each duration	1929	1083 (56.1)	640 (33.2)	107 (5.54)	99 (5.13)	-
Total	(1155)	-	-	-	-	36(3.05) Married (3.1)

*multiple answers allowed

Table 4: Shows the history of contraception methods use and failure (Pregnancy) rate*.

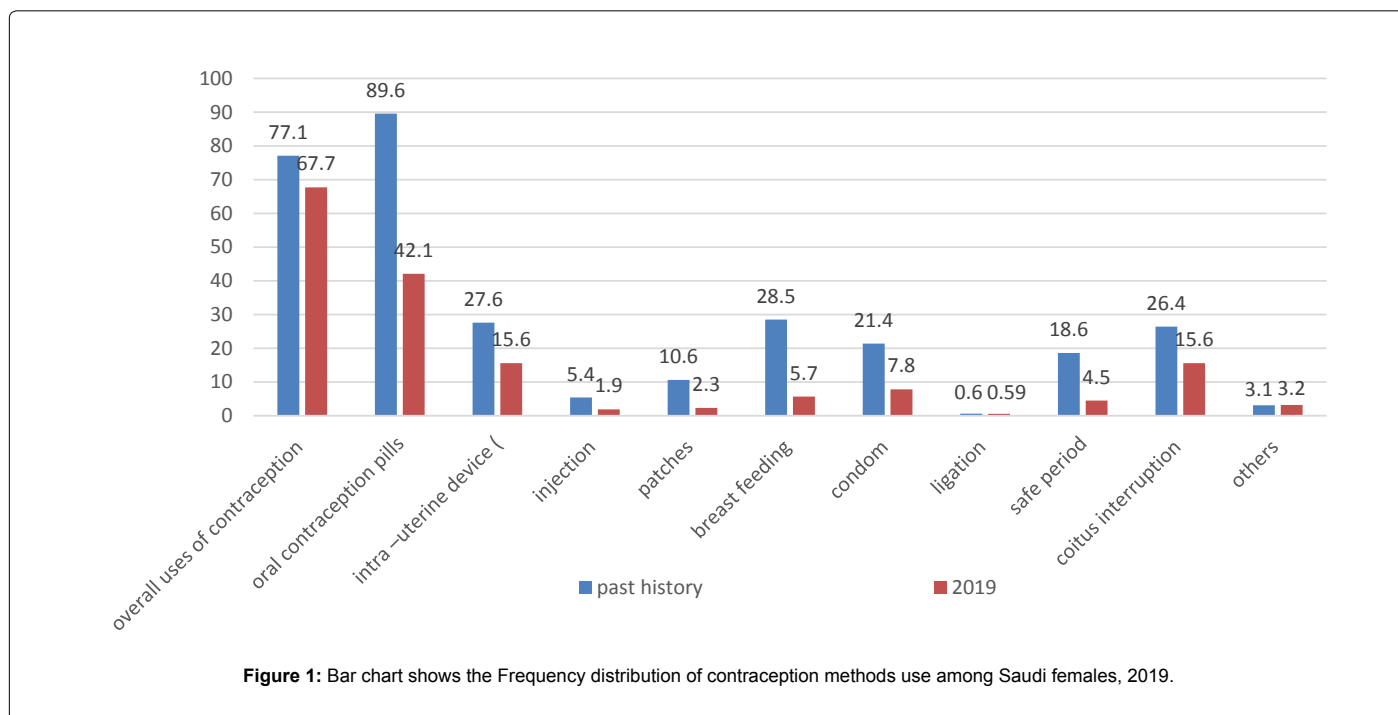


Figure 1: Bar chart shows the Frequency distribution of contraception methods use among Saudi females, 2019.

while only 27.7% reported than in KSA there is no barriers. Although the majority 44.3% reported their insufficient knowledge, but the social and cultural, unavailable services and religious factors were the main barriers (51.9%, 33% and 27.1%) respectively (Tables 7 and 8).

Discussion

Recently, the use of Contraceptives in nearly every country use has

increased [14]. However, only a limited number and old similar studies were conducted among Saudi women. So, it is interesting to explore the perception and use of contraceptives, such issues will help the health policymakers and physicians to clearly assess and adequately response [3].

Our results show 68.9% of Saudi women using contraceptives method at least one continuous year, which is consistent with a few local

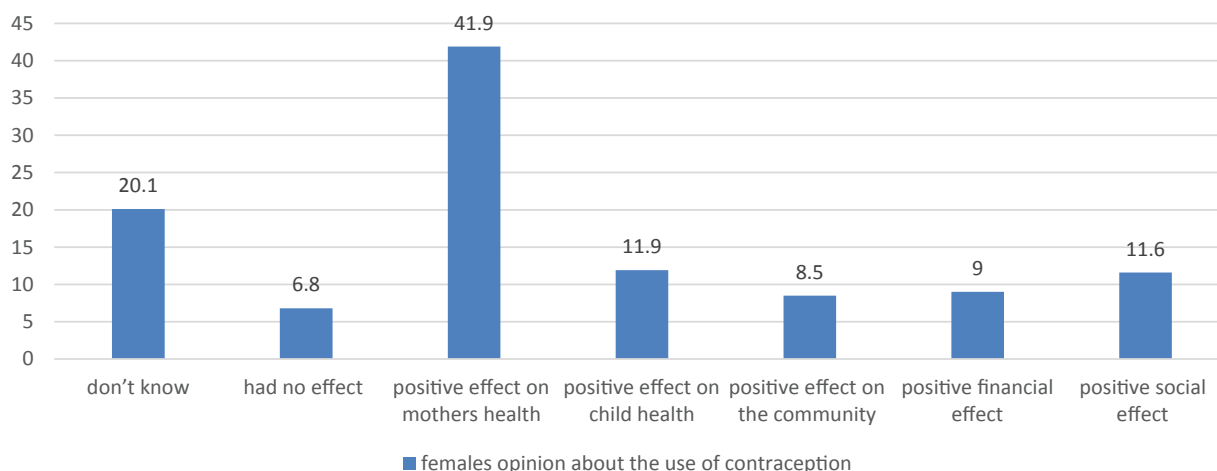


Figure 2: Bar chart shows the Saudi females opinion about the use of contraception in (%). *multiple answers allowed

	F	%
The sources of knowledge about contraception methods(T=908)		
Friends	198	21.8
Relatives	332	36.5
Mass media	145	15.9
Health care providers (HCPs)	347	38.2
Others	123	13.5
Your husband supporting the contraception use		
No	180	18.8
Yes	489	53.9
To some what	239	26.3
Sources of the used contraception methods (T=908)		
PHCCs	53	5.8
Pharmacy	498	54.8
Private clinics	183	20.2
Private hospitals	168	18.5
Governmental hospitals	82	9.03

Table 5: Shows the family planning knowledge and services among Saudi females.

studies [15]. However, different results reported in EL Qassem studies on married women revealed that 86.1% and 44.4% of the participants used contraception [16,17]. These inconsistencies can be explained by that, the used sample excluded nulliparous females and the study location.

The frequency of OCP usage is 89.9% which is higher than recent Saudi Arabia reports [18]. This higher rate may have attributed to the community-based sample rather than the official government data and 91.3% of the participants were married. Moreover, in KSA, the contraceptives are available over the counter and the different variety of contraceptive health service is free. This might lead to underestimating the realistic contraceptives use. However, this rate is higher than the world reported rate (63.1%) and nearly equal to the developed countries rate (67.4%) [19].

It's very important to identifying the most common types of contraception used among Saudi women because, it can be used by physicians to determine appropriate approaches to educating women about the use indications, methods and the expected side effects of contraception. The most popularly used method is oral pills (89.6%)

	F	%
The prevalence of current contraception use (1215)		
No	379	31.19
Yes	836	68.8
The frequency of current contraception methods uses (T=836)		
Oral contraception pills (OCP)		
• Don't know=31(8.8)	31	3.70
• Combined=221(62.8)	221	26.43
• Progesterone only pill=110(31.3)	110	13.16
Intrauterine device (IUD)	130	15.6
Injection	16	1.9
Patches	19	2.3
Condom	65	7.8
Tubal ligation	5	0.59
Safe period	38	4.5
Coitus interruption (he withdrawal method)	130	15.6
Others	80	6.6
Aim of the used contraception methods use (T=836)*		
Birth plan	463	55.4
Don't want to get pregnant	261	31.2
Self-achievement -job progress	64	7.7
Social causes	63	7.5
Financial causes	72	8.6
Medical causes	149	17.8
Others (husband diseases-separation-stressed-well breeding kids)	64	7.7
*Multiple answers allowed		

Table 6: Shows the frequency of current contraception among Saudi females.

this could be attributed to that the main source of knowledge about contraception were the relatives and friends (58.3%), who had and share their limited experience. This is consistent with other studies that have reported the popularity of OCP [20-24]. Thus, highlighted the necessity for increased public awareness.

As regards the ranking of the used contraceptive methods, these results are nearly consistent with Saudi Arabia's reported data in which OCPs, followed by IUDs, tubal ligation and the condom [18]. However,

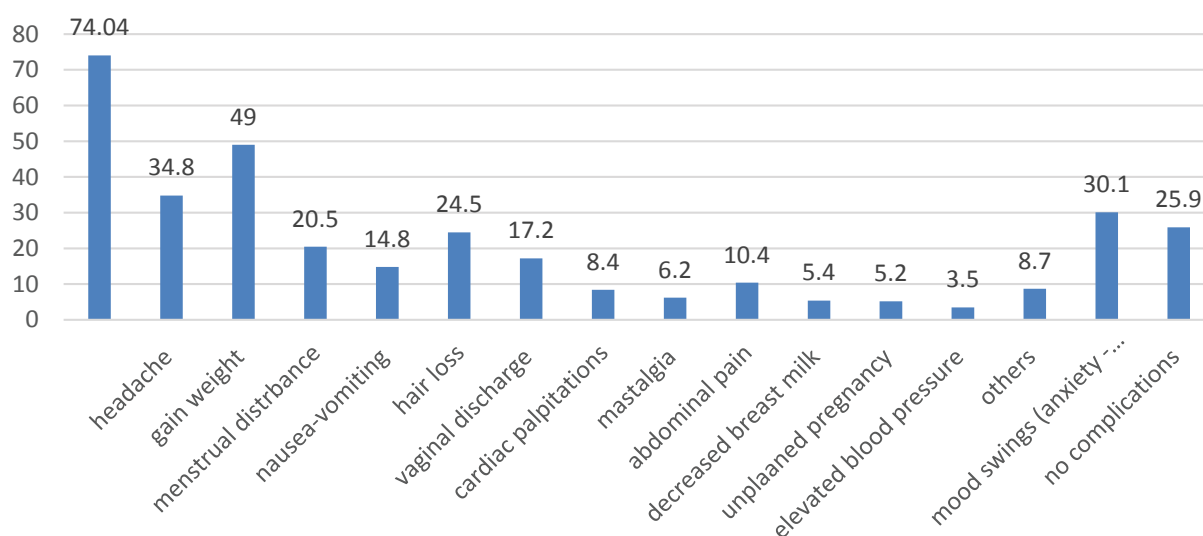


Figure 3: Bar chart shows the prevalence of the encountered and known contraception side effects.

	Satisfied	Borderline	Unsatisfied	Not available
FPS in PHCCs	584 (48.0)	163 (13.4)	71 (5.8)	397 (32.6)
The sufficiency of the FPS in PHCCs	426 (35.0)	233 (19.2)	94 (7.7)	462 (38.0)
The tools of FPS in PHCCs	400 (32.9)	191 (15.7)	74 (6.1)	550 (45.2)
The HCPs of FPS in PHCCs	422 (34.7)	203 (16.7)	85 (7.0)	505 (45.2)

Table 7: The Saudi female's satisfaction with the provided Family Planning Services (FPS) in PHCCs.

	F	%
The KSA birth rate(BR) needs		
Increased	338	27.8
Decreased	200	16.4
The same	677	55.7
The contraception use barriers in KSA		
Don't know	249	20.5
No barriers	337	27.7
Yes, have	348	28.6
May be	281	23.1
The barriers of contraception use in KSA are (842)*		
Didn't have sufficient knowledge	373	44.3
Economic causes	185	21.8
Religious causes	228	27.1
Cultural and social causes	437	51.9
The FPs don't available in the PHCCs	278	33
Insufficient time for consultations	38	4.5
The mode of transmission to PHCCs (*)	50	5.9
Others	221	26.2

multiple answers allowed, ()-Insufficient or unavailable

Table 8: Shows the participants opinion about current situation in KSA.

Source	Title	Website	Comment
Association of Reproductive Health Professionals	Method Match	http://www.arhp.org/methodmatch/	Interactive tool for patients to choose most appropriate methods with comprehensive information on each method
Association of Reproductive Health Professionals	You Decide Tool Kit	http://arhp.org/publications-and-resources/clinical-practice-tools/you-decide	Comprehensive source of tools for physicians to help patients choose appropriate contraception
Bridging the Gap Foundation	Managing Contraception	http://www.managingcontraception.com	Patient education and patient Web-based self-research
Planned Parenthood	Health Topic: Birth Control	http://www.plannedparenthood.org/health-topics/birth-control-4211.htm	Patient education and patient Web-based self-research
Princeton University and the Association of Reproductive Health Professionals	Emergency Contraception Website	http://ec.princeton.edu/	Information on and assistance in obtaining emergency contraception
World Health Organization	Family Planning: A Global Handbook for Providers	http://www.inforhealth.org/globalhandbook/handbook.pdf	Comprehensive, simplistic reference for contraception counselling and practical management of adverse effects
World Health Organization	Medical eligibility criteria for contraceptive use	http://www.who.int/reproductivehealth/publications/family_planning/9789241563888/en/index.html	Determination of safe contraceptive options

Table 9: Lists resources for physicians and patients (Hormonal Contraceptives: Online Resources).

tubal ligation was only (0.59%) the lowest rate this may be due to the traditions and islamic culture which reject permanent sterilization that may accept a temporary delay of pregnancy and the official data reports are usually hospital-based records. However, among married women in developing countries, the most widely used four methods are oral contraceptives, IUDs, injectable and female sterilization, while in our study injections were only 1.9% [25].

The male contraception (condom) ranked the fourth method (7.9%) among studied participants was inconsistent with, the recent United Nation's report (2007) worldwide showed that condoms are the second most commonly used method after pills in KSA which matches the trend of developed countries [5]. This may be due to traditional cultures or may reflect underreporting due to shy users [19]. In developing countries, condoms and male sterilization are among the least used of all contraceptive methods. The reverse is true in developed countries, in which condoms are the major method of family planning [18].

Regarding the basis of choosing contraception among Saudi women, we found 2 main factors: We founded that the HCPs had a limited role in providing contraception information. Only 38%, reflects the family power and 58.3% community conservative culture, which tends to be less reliable compared to the medical advice. This fact considered as the main factor for the low knowledge level regarding contraceptive methods and the spread of common misconceptions. This is consistent with many local studies [20,21].

Evidence shows that two years is the best birth interval for better infants and children [26]. The majority of the Saudi women uses contraception less than one year (56.1%) and 33.2% which less than what reported among traditional healers in Nigeria whom prefers a child spacing period (2-3 y) [27]. Quran guided Muslims indirectly to the optimum birth interval period by specifying a suggested time of 24 months for breastfeeding and the period of pregnancy and suckling to range from 24 to 30 months (Holy Quran 2:233, 31:14, 46:15). So a minimum birth interval ranging from 2.5-3.0 years is adequate. It was therefore surprising that only 33.2% in this study from an Islamic background practiced a gap from one to less than three years as a birth space.

The using rate of modern contraception methods (patches and injection) is 4.2%, that can be attributed to the poor knowledge regarding the variety of contraceptive methods. In agreement with the recent

surveys in 60 developing countries that reported only 37 countries, had 95% of married women who knew at least one contraceptive method [28,29]. The knowledge gap restricts women's choice for the use of contraceptives [3].

Reasons for using or not using contraception may vary significantly from one society to the other due to the variations in cultural, educational or even religious backgrounds. Consequently, knowing the factors that affecting their choices helping in identifying the appropriate interventions and the necessary actions. Globally, preventing unintended pregnancy is the main reason for contraception use [30]. As the same results reported among Saudi women in preventing unintended pregnancies (birth plan 55.2% and don't want to get pregnancy 31.4%) and treating certain conditions (18.7%).

While, the main reasons for not using contraception are medical causes (35.5%), husband refusal (31.5%) and fear from hazards or complications (17.9%) this can be attributed to that the limited role of medical advice as a source of information (38.0%) among women in choosing or adopting this practice, which leads to the spread of misinformation about contraception.

However, nearly 41% of the studied Saudi women knowing the positive impact of contraceptives use on women's health and less than 10% known the positive impact of contraception as regards (community, social, economic, and child health) which requires more attention to the cultural misconceptions regarding contraceptives.

While 51.9% of participants reported sociocultural barriers, which is an actual barrier as nearly 31% reported that the husband refuse is a cause of not use and only 18.8% reported that their husbands do not support contraception use.

Islam is the main religion in the Saudi religious society and (only a few of the participants reported that being Haram or not allowed in Islam or Children are a blessing from God), 27.7% expected its role as barrier for using contraception. while in real its effects 3.9% on actual practice. So religious barrier is not a major reason. This finding is inconsistent with local studied this inconsistency may be due to the variations in the degree of religiosity and social culture from one area to another in different Saudi provinces [15,16]. Compared with Islamic Arab countries which are nearby supposed to be the same culture, the majority showed a lower contraception user rate than Saudi Arabia, ranging from and 61.8% in Bahrain, 58.3% in Syria, 43.2% in Qatar,

27.5% in the United Arab Emirates and 23.1% in Yemen [5]. This variation could be attributed to the variation in the local culture of these countries towards contraceptive use.

The assessment of the actual incidence of side effects contraception is important. As it points to the most commonly reported side effects among Saudi women to physicians and their potential gaps to experience side effects of which they do not know. The side effects among Saudi women showed that there was no disparity from the world reported results, weight gain (49.0%) because the about 45% of the Saudi women used hormonal contraceptive methods. However studies reported that long-acting injectable depot medroxyprogesterone acetate is the only hormonal contraceptive that is consistently associated with weight gain an average of 11.2 lb (5.1 kg) over 36 months. Whereas women who used combined oral contraceptives did not gain any weight [31,32].

The second common reported side effects were a headache (34.85%) because the mean age of the studied women was 37.5 y, headache is more common during the first cycle of combined oral contraceptives and in women who are older than 35 y [33]. Mood swings (30.1%) as reported that Depo-Provera was associated with an increased rate of depression, which can persist after discontinuation of therapy, which is inconsistently with studied that reported number of significant differences in effect on mood have been found among various combined oral contraceptives [34-37]. Hair loss (24.5%), menstrual disturbances and irregular bleeding (20.5%) are common in the first months of combined oral contraceptive use and need reassurance menstrual disturbances is also considered the main cause of discontinuing hormonal contraceptives [24]. If it persists more than three months, an alternative method should be considered and the patient needs to be evaluated for other causes [34]. Moreover, the percentage of unintended pregnancy is about 5.2%.

In general, the majority of adverse effects related mainly to the hormonal contraceptives, usually diminish to be acceptance with continued use of the same method. Reassurance is the only required treatment as will resolve within three to five months [35]. Educating patients about common adverse effects help to establish realistic expectations [24,36].

Although KSA population expected to double, reaching 77.2 million by 2050, growing at 2.65% per annum, this will have a significant impact on healthcare demand in terms of quality, quantity and type of healthcare facilities [37]. Only 16.4% of Saudi women reported that the BR should be decreased and 55.7% reported its should be the same.

However, our study also reported more details about the Saudi women satisfaction with the provided FPS in PHCCs, only about 33% of participants were satisfied with all studied FPS, about 45% of them reported that the tools of FPS and trained HCPs are unavailable. The provision of contraceptive services, like all areas of healthcare, has been affected by changes in the structure of healthcare financing and the rise of managed care which covers preventative care, including routine gynecologic checkups and some reversible contraceptive services and supplies [38].

However, not all managed care plans cover the process of obtaining contraceptive services and methods which add burdens on women seeking contraceptive care. These burdens include prior authorization requirements that may cause some women to delay care or forgo sensitive care, which a woman may not want to disclose to her primary care physician, in agreement with U.S.A [39].

The influence of "Social desirability response bias" is a possible

explanation for this finding. Socially desirable responding is the tendency for participants to present a favorable image of themselves [40]. Participant may choose the answers with the most socially acceptable values, either to avoid criticism or to gain social approval [41]. Therefore, it is very important determinants. As it points to the potential for gaps women to experience barriers, of which they do not know [42,43]. Furthermore, it provides physicians and stakeholders with knowledge of the most commonly reported barriers.

Limitations

As cross sectional study cannot be used to analyze behavior over a period of time, it does not help to determine cause and effect. As this is an information self-reporting bias (answering a questionnaire or responding agreeing to be interviewed), there is a tendency for respondents to provide what they believe to be socially acceptable answers rather than the truth, especially with regard to behavioural aspects and, recall bias about the past history and behavior information.

Strengths

It's a recent comprehensive study and only a few studies have been conducted addressing the use and determinants of contraception in Saudi women, it was conducted to address the gaps. First, the present study results can be generalized included a large sample (n=1215), which was sampled in a represented way to all the 20 healthy regions (from inside and outside the countries). Second, unmarried and nulliparous females were included, which gives an insight into contraception use among all social groups. Third, this study has assessed the encountered side effects among Saudi women, which has not been assessed previously. Moreover, this study provides a basis, on which physicians can further target their actions toward educating contraceptive users. Yet it also provides an opportunity to analyze and understand their contraception practices.

Recommendations

We recommend sustained efforts to raise awareness and motivation for proper contraceptive use through campaigns, facilitating the process of obtaining such resources and providing sources of information with facilitating access to more information, education and communication with the couples in reproductive age. Activating and increasing the role of mass media in raising public awareness about the benefits and modern contraception methods contraceptives and to dispel misconceptions (Table 9).

- We Recommend future detailed frequent and local studies, because knowledge of such issues helps health policymakers and physicians to understand the situation more clearly and respond to the information appropriately.
- Appropriate well-structured strategies should be implemented to provide efficient FPs in PHCS through proving the following: Family planning service providers, regular comprehensive updated training courses on the FPS, the contraceptive methods and application tools depending on women population proportionated ratio, ensure the services are available in all PHCCs, continuous follow up and on job training to ensure the quality of the provided services and marketing the presence of services of this service.
- Patient education can decrease the chances of unanticipated adverse effects of hormonal contraceptives.

Conclusion

In KSA, the contraceptives user rate is higher than the normal user rates in the world and nearly equal to developed countries. The contraceptive pills are the commonest contraceptive methods used among Saudi women, followed by the IUD and withdrawal methods. There were knowledge gaps and cultural misconceptions about the benefit and methods of contraception.

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