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Awareness and use of family planning methods among women in Northern Saudi Arabia

Ghzi Ghazi Alenezi¹ and Hassan Kasim Haridi^{2*} 

Abstract

Background: Evaluation of awareness and use of family planning methods is important to improve services and policies. This study aimed to assess awareness and use of family planning methods among women in an urban community in the north of Saudi Arabia.

A cross-sectional study was carried out in a maternity hospital and 12 primary health care (PHC) centers in Hail City between December 1st, 2019, and May 30, 2020.

Results: Four hundred married sexually active women aged 18–49 years were interviewed using a pretested structured questionnaire. The mean age of the participant was 32.0 ± 7.5 years, 73.5% were university educated, and 58% were housewives. More than two-thirds of them (67.6%) had ≥ 3 living children. Most women (85%) ever used, and 66.5% were currently using any method of contraception; however, only one in five who get counseling for the contraceptive method used, and 40% of the last births were unplanned for. Almost all women reported unavailable family planning clinics in their primary healthcare centers. Most participants (83.0%) desired to have >3 children, which indicates that the main purpose of family planning was child spacing rather than limitation. Relying on natural methods as being safer (36.3%), desire to have more children (19%), being afraid from side effects (15.3%), and possibility of difficulty getting pregnant or might cause infertility (13.0%) were reasons the participants viewed for unsung modern contraceptives.

Conclusion: This study revealed that most women in urban Hail community, northern Saudi Arabia, were aware about and have a positive attitude towards family planning. The majority of the participants ever used, and two-thirds were currently using any contraceptive method/s, which is higher than the national estimate for Saudi Arabia. However, only one in five counseled by healthcare providers for the type of contraceptive method used. Unavailability of family planning services in primary health care centers impedes getting professional counseling. It is imperious to consider family planning clinics to provide quality family planning services.

Keywords: Awareness, Contraceptives, Family planning, Practice, Saudi Arabia

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Background

A woman's ability to choose whether and when to become pregnant directly affects her health and well-being. Voluntary family planning saves lives and accelerates sustainable human and economic development [1]. Family planning implies the ability of individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births [2]. Use of contraception prevents pregnancy-related health risks for women and children. When births are separated by less than 2 years, the infant mortality rate is 45% higher than it is when births are 2–3 years and 60% higher than it is when births are four or more years apart [3]. Family planning offers a range of potential non-health benefits that encompass expanded educational opportunities and empowerment for women and sustainable population growth and economic development for countries [4]. Family planning is achieved through contraception, defined as any means capable of preventing pregnancy, and through the treatment of involuntary infertility. The contraceptive effect can be obtained through temporary or permanent means. Temporary methods include periodic abstinence during the fertile period, coitus interruptus (withdrawal), using the naturally occurring periods of infertility (e.g., during breastfeeding and postpartum amenorrhea), through the use of reproductive hormones (e.g., oral pills and long-acting injections and implants), placement of a device in the uterus (e.g., copper-bearing and hormone-releasing intrauterine devices), and interposing a barrier that prevents the ascension of the sperm into the upper female genital tract (e.g., condoms, diaphragms, and spermicides). Permanent methods of contraception include male and female sterilization [2, 4].

Availability of family planning methods and family planning service quality are important dimensions of the global health policies [5]. Regarding availability, the principles state that health care facilities, providers, and contraceptive methods need to be available “to ensure that individuals can exercise full choice from a full range of methods” and that furthermore, contraceptive methods are to be accessible without informational or other barriers. Regarding service quality issues, the principles state that “client-provider interactions respect informed choice, privacy and confidentiality, client preferences, and needs” [5].

Even though women in Saudi Arabia have a high total fertility rate compared to developed countries, a major change has occurred in the last decades. The total fertility rate decreased from 7.17 in 1980 to 4.10 in 2000 and to 2.27 in 2020 [6], a decrease by 45% in the last two decades and by more than two thirds in the last four

decades. This substantial change in fertility profile occurred as a consequence of sociodemographic development in the Saudi community, especially in women's education and work [7, 8] as important factors in changing the beliefs of fertility and behaviors towards birth spacing, and the use of the contraceptives.

Monitoring and evaluation of awareness and utilization of family planning methods in communities are important to improve the quality and effectiveness of services, policies, and planning with resulting beneficial impacts on health and quality of life of women, children, families, and communities. An important aspect of research in this respect is to explore views and practices of women in the reproductive age with regard to family planning and fertility preferences, so we aimed in this study to assess awareness, attitude, and use of family planning methods among women in urban community at the north of Saudi Arabia.

Methods

Study design and the participants

This cross-sectional study was conducted in Hail City, the main urban area in Hail region, at the north of Saudi Arabia, between December 1st, 2019, and May 30, 2020. A maternity hospital and 12 primary health care (PHC) centers were the setting of this study. PHC centers were selected at random among a total of 24 PHC centers serving all neighborhood of Hail City. The eligible subjects were married women, residing in Hail City for at least 1 year, aged 18–49 years, who were sexually active, not in the menopause with no contraindication from getting pregnant. Participants were selected at random from women in the waiting areas, who visited the selected health care facility for any reason and invited to undergo an interview. Sample size was calculated using Cochran's Sample Size Formula [9] to comprise 384 participants, assuming 50% of women are using contraceptive methods (to maximize sample size) and 5% margin error within 95% confidence level. However, a successful 400 eligible participants were interviewed. A prior consent was obtained from the participants before the interview. Efforts were maximally taken during recruiting and interviewing eligible participants in the study to avoid any potential selection or information bias.

Data collection and analysis

A pretested, predesigned questionnaire was used by the investigator to interview the selected study participants. The questionnaire included sociodemographic information regarding age, education, family size, and family income, and questions covered awareness with regard to the concept and methods of family planning and attitude towards and practice of family planning. Data obtained was coded, entered into, and analyzed using Epi Info

7.1.3 program (CDC, Atlanta, GA, USA). Descriptive statistical measures as percentages and proportions were used to express qualitative data. Quantitative data were expressed as mean and standard deviation. Data was presented as tables and graphs as relevant.

Result

A total of 400 women completed the interview among 418 women asked to participate in the study (96.7% response rate). Time factor and wouldn't like to share personal information were most of the reasons mentioned for non-participation.

The mean age of the participants was 32.0 ± 7.5 years. The age-wise distribution of the participants is shown in Table 1. Most participants received university education (294, 73.5%). More than half (211, 52.8%) of the participants reported family income <10,000 SR, while those who reported high income $\geq 15,000$ SR were 96 (24.0%). The mean living children per woman was 2.9 ± 2.5 children, with about one-third (130, 32.5%) had more than 3 children (Table 1).

Table 1 Sociodemographic characteristics of respondents

Variable	Frequency (n = 400)	Percent
Age group in years		
<25	55	13.8
25–29	128	32.0
30–39	142	35.5
40+	75	18.8
Mean age in years \pm SD	32.0 ± 7.50	
Level of education of respondent		
No formal education	11	2.8
Primary/middle school	36	9.0
High school	59	14.8
University/higher	294	73.5
Employment status of respondent		
Housewife	232	58.0
Working	122	30.5
Student	46	11.5
Family income (SR)		
< 5000	42	10.5
5000–9999	169	42.3
10,000–14,900	93	23.3
$\geq 15,000$	96	24.0
No. of living children		
0–1	135	33.8
2–3	135	33.8
≥ 4	130	32.5
Mean \pm SD	2.9 ± 2.52	

Table 2 summarizes awareness about and attitude towards family planning among the study participants. About two-thirds 259 (64.8%) perceived family planning concept as a means for pregnancy spacing, while 88 (22.0%) perceived it as a means of pregnancy limitation, the others 53 (13.3%) were not familiar with the meaning of family planning. Almost all participants (399; 99.8%) were familiar with hormonal contraceptive pills, IUDs (387, 96.8%), and withdrawal (396, 99.0%), and most (364, 91.0%) were familiar with condom and breastfeeding (330, 82.5%) as a means of contraception methods. Still, a good percent was familiar with abstinence (307, 76.8%) and injectable hormonal (252, 63.0%) and hormonal patch (245, 61.3%) contraceptives. Less commonly familiar methods were female sterilization (145, 36.3%), female barrier (92, 23.0%), and male sterilization (68, 17.0%). Figure 1 demonstrates sources of knowledge about family planning among participants. Most sources were non-reliable sources, such as family/friends (67.5%), general internet sites (43.8%), and social media (34/0%); meanwhile, only half (50.3%) of the participants reported consulting healthcare workers.

The vast majority (384, 96.0%) were favoring family planning (agree/strongly agree), with almost the same percent mentioned that family planning have multiple benefits. More than two-thirds (282, 70.5%) of the participating women reported husbands' support with regard to family planning. A small percent (17.0%) desired a small number (1–3) of children; 55.0% desired more than 3 children, while 28.0% would not like to limit their children number and leave it open. More than two-thirds (67.5%) preferred pregnancy spacing for more than 2 years.

Table 3 summarizes family planning practices as reported by participant women. The majority ($n=341$; 85.3%, CI= 81.4–88.6) ever used and 266 (66.5%, CI= 61.6–71.1) were currently using contraceptive method/s. Methods currently mostly used were pills ($n=144$, 54.1%), withdrawal ($n=58$, 21.8%), IUDs ($n=29$, 10.9%), hormonal patches ($n=14$, 5.3%), and condom ($n=12$, 4.5%) (Fig. 2).

Less than half ($n=144$; 44.0%) of the respondents reported that their husbands practice contraception. The frequently used method was withdrawal ($n=147$, 36.8%) and to a lesser extent condom ($n=55$, 13.8%) and abstinence during ovulation period ($n=32$, 8.0%).

More than 60% (121, 60.5%) bought the contraceptive directly from private pharmacies over the counter as a personal choice, others (52, 26.0%) brought the contraceptive method after medical advice in private dispensary/hospital, and few (27, 13.5%) were prescribed after medical advice in a governmental health care facility.

Table 4 summarizes respondent's views about the important reasons behind the non-use of modern

Table 2 Awareness about and attitude towards family planning

	<i>n</i>	%
Perceived purpose of family planning		
A mean of pregnancy spacing	259	64.8
A mean of pregnancy limitation	88	22.0
Not familiar	53	13.3
Awareness regarding various methods of family planning		
Modern methods		
Pills	399	99.8
Injectable hormonal	252	63.0
Hormonal patches	245	61.3
Hormonal implants	95	23.8
IUDs	387	96.8
Condom	364	91.0
Female barrier	92	23.0
Female sterilization	145	36.3
Male sterilization	68	17.0
Traditional methods		
Withdrawal	396	99.0
Breastfeeding	330	82.5
Abstinence	307	76.8
Attitude towards family family planning		
Favoring family planning (agree/strongly agree)	384	96.0
Family planning have good benefits (agree/strongly agree)	384	96.0
My husband is supporting me for family planning (agree/strongly agree)	282	70.5
Still I want more children (yes)	307	76.8
Preferred number of children		
1–3	68	17.0
>3	220	55.0
No preference	112	28.0
Preferred child spacing (years)		
2	130	32.5
>2	270	67.5

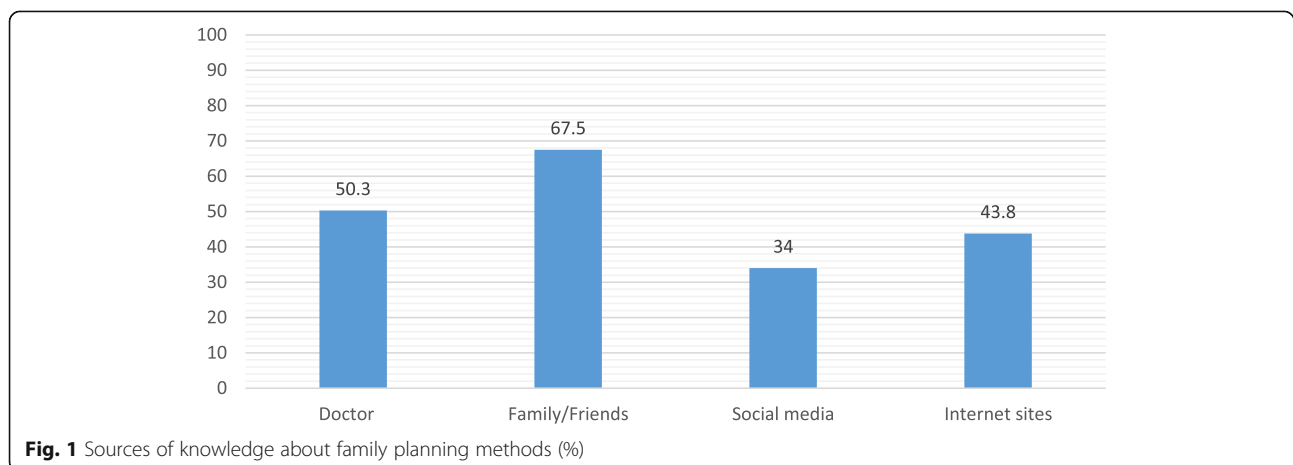


Fig. 1 Sources of knowledge about family planning methods (%)

Table 3 Family planning practice

Variables	n	%
Ever used contraceptive method		
Yes	341	85.3 ^a
No	59	14.7
Currently use contraceptive method		
Yes	266	66.5 ^b
No	85	21.3
Being pregnant	49	12.3
Type of the contraceptive method currently used		
Pills	144	54.1
Withdrawal	58	21.8
IUD	29	10.9
Hormonal patches	14	5.3
Condom	12	4.5
Other methods	9	3.4
Husband practices contraceptive method		
Yes	176	44.0
No	224	56.0
Husband contraceptive method used		
Condom	55	13.8
Withdrawal method	147	36.8
Abstinence during ovulation period	32	8.0
Source of the contraceptive method prescribing		
Governmental hospital	27	13.5
Private Dispensary/Hospital	52	26.0
Directly from a pharmacy	121	60.5
Who advised the type of the contraceptive method		
Doctor/nurse	46	21.8
Family/friends	49	23.2
Personal choice based on general information	116	55.0
Duration of use of the last contraceptive method (years)		
< 1 year	54	14.9
1–<2	64	17.6
2–3	51	14.0
>3	42	11.6
Not used	152	41.9
Was the last child planned for?		
Yes	240	60.0
No	160	40.0

PHC primary health care

^aConfidence interval (81.4–88.6)^bConfidence interval (61.6–71.1)

contraceptive methods among some women. Favoring natural contraceptive methods (36.3%), the desire of more children (19.0%), being afraid of health side effects

and complications (15.3%). Other mentioned causes were being afraid of difficulty of getting pregnant (6.5%), the misconception that modern contraceptives may cause infertility (6.5%), and the other miscellaneous causes/non-response (16.4%).

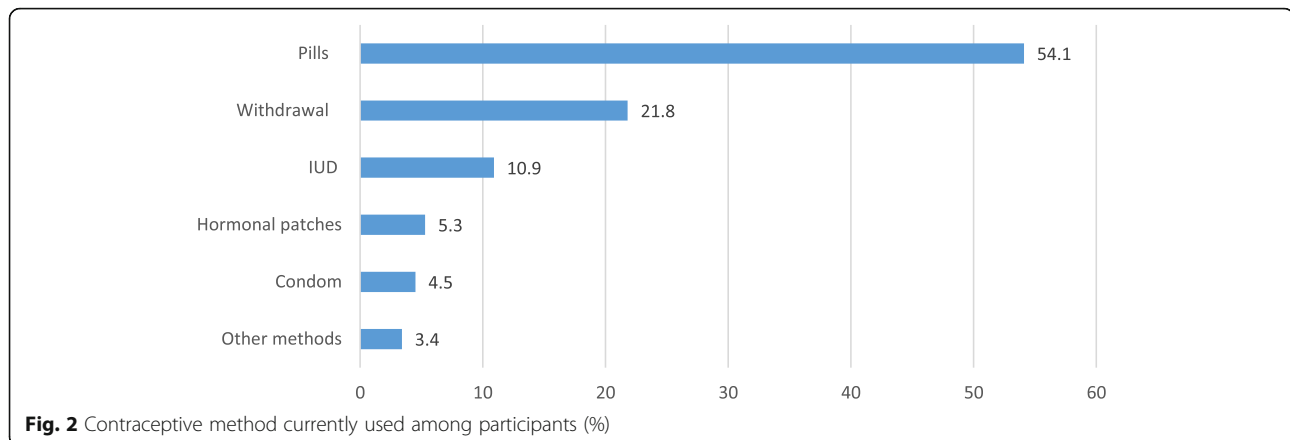
Discussion

A fundamental change has occurred in Saudi society over the last decades. Socioeconomic development, urbanization, and women's education and work [7, 8, 10] led to changes in fertility beliefs and behaviors. Results of the present study shed light on an urban community in the north of Saudi Arabia, exploring views, attitudes, and practices of women in the childbearing period regarding family planning, fertility preferences, and health-seeking behavior.

In this study, most of the participating women (85.3%) ever used, and 66.5% were currently using any family planning method/s, which is by far higher than the national estimate for Saudi Arabia (18.6%) stated in the United Nations (UN) "World Fertility and Family Planning 2020" report and also higher than the international prevalence average, where, in 2019, 49% of all women in the reproductive age range 15–49 years were using some form of contraception [11]. Similarly, the prevalence was also higher than the reported figures in surrounding Gulf Arab countries such as the United Arab Emirates (33.4%), Kuwait (35.5%), Bahrain (32.2%), Oman (19.6%), Qatar (29.1%), and other Arab countries such as Egypt (43.2%), Jordan (31.1%), Iraq (35.1%), Syria (31.6%), Tunisia (34.3%), and Morocco (36.7%) [11]. However, the estimate is fairly similar to rates in Western countries such as the UK (71.7%), France (63.4%), Italy (55.6%), Spain (56.5%), and the USA (61.4%) [11].

This reported higher rate of family planning methods used in our study population actually concealing a high proportion of couples using traditional unreliable methods, where one in 4 was using these methods compared to <10% internationally [11].

Almost all (96.0%) of the participants in our study praised the concept of family planning and agreed about the benefits of family planning for maternal and child health and well-being. Furthermore, the majority of the participants (85.3%) were ever used or currently using (66.5%) family planning methods. This finding indicates the high acceptability of the family planning concept and points to the real desire of families to plan for the timing of pregnancy occurrence and space between children. Translation of this high acceptance and the higher prevalence of using contraceptives was not reflected in lower fertility profile or smaller family size in our sample. About one-third (32.5%) were already having more than 3 living children, and 83.0% reported that they still want more children, and half of them (49.2%) reported



that they prefer to have more than 3 children. This indicates that the main purpose of using contraceptive methods among the majority of the participants is birth spacing rather than birth limitation. This finding is consistent with previous study conducted in southwestern Saudi Arabia, where 60.0% of contraceptive users were spacer [12]. This could be explained on the background of cultural factors, religious traditions and customs of an Islamic society as well as personal views.

An important finding in our study is that, the use of contraceptive methods among participants largely depends upon their personal views (55.0%) or family/friends' experience (23.2%), while only 21.8% of the participants received medical advice before using their current contraceptive method. This might explain the higher number of couples who relied on unreliable contraceptive methods and the considerable percentage (40%) of the participants who reported that their last pregnancy was unplanned for, which might be attributed to failure of the contraceptive method used. This is not surprising when we find that all participants reported unavailability of a family planning clinic in their PHC centers, with only one in three (33.8%) who reported that their PHC centers may provide family planning counseling and just 2.8% who reported accessibility for prescribing family planning methods. This situation indicates

that, in spite of the high social necessity for family planning revealed by the high demand on family planning methods, there is no parallel availability of organized health services coping for this unmet need of women in the region. As a consequence, health-seeking behavior is self-guided based on personal information and beliefs and/or unreliable sources such as experience of relatives and friends. This crucial need for family planning services was also reported in other studies in Saudi Arabia [12]. The availability of family planning services allows couples to meet their desired birth spacing and family size and contributes to improved health outcomes for children, women, and families [13–15].

Two important consequences might result from choosing a family planning method without medical advice; first, the likelihood of occurrence of avoidable side effects and complications which might affect the users' beliefs and behavior; second, due to resorting to traditional methods of family planning, high rates of contraceptive failure occurs. Dissemination of information about options for contraception should become a part of the routine counseling in primary health care centers and other health care institutions as any decision about contraceptive use should be based not only on contraceptive risks/benefits, but also on the efficacy of the method, individual's life situation, and the level of risk particular to the user characteristics and the life consequences of childbearing for the mother and child [16, 17].

Table 4 Respondents' views about hesitancy of some women for using modern contraceptive methods for family planning

Causes	n	%
Natural contraceptive methods are safer	145	36.3
Want more children	76	19.0
Afraid from health side effects and complications	61	15.3
Difficulty of getting pregnant	26	6.5
Cause infertility	26	6.5
Other causes/no response	66	16.4

Limitation

Our study has a number of inherent limitations. Firstly, it is a cross-sectional study, so relationships between the predictor variables and the dependent variables can only be described as general associations not a causal relationship. Second, as an interview survey, social desirability bias cannot be eliminated, and recall bias for some events might happen. Third, our

study participants were completely from the urban population, so the result cannot be extended to the rural population in the region. However, the current study provides insights to policymakers and health care providers about awareness, attitude, and barriers affecting family planning practice among women in the region to offer need-based health services and to guide health awareness efforts.

Conclusion

This study revealed that most women in the urban Hail community, northern Saudi Arabia, were aware about and have a positive attitude towards family planning. The majority of women ever used, and two-thirds of them were currently using any family planning method/s, which is higher than the national estimate for Saudi Arabia. However, only one in five who received counseling for the type of contraceptive method used from healthcare providers. The unavailability of family planning services in primary health care centers impedes getting professional counseling. It is imperious to consider family planning clinics to provide quality family planning services.

Abbreviation

PHC: Primary health care

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Authors' contributions

GA conceived the study idea, participated in development of the data collection tool, carried out all interviews, and participated in interpretation of the study results. HH adapted the study idea, designed the data collection tool, carried out data analysis and interpretation of results, and wrote the manuscript. All authors have read and approved the manuscript

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Availability of data and materials

Available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

The protocol of the study was reviewed and approved by the Regional Bioethics Committee of the General Directorate of Health Affairs, Hail region, with the approval number 2019/22 dated October 6, 2019. Agreed participants signed the study consent form. Participants were guaranteed anonymity, confidentiality of the responses, and voluntary participation, and they can withdraw for any reason and any time, without any implications.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

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