

ATTITUDES AND KNOWLEDGE ABOUT CONTRACEPTIVE USE OF SAUDI MARRIED WOMEN: A CROSS-SECTIONAL STUDY APPROACH

Ali Musfer ALQAHTANI¹, Khalid ORAYJ², Sultan M ALSHAHRANI², Afaf ALDAHISH¹, Taha ALQAHTANI¹, Amani ALSHAHRANI³, Noura ALSHAHRANI⁴, Ahlam ALSHAHRANI⁴, Hajar Saad DAJAM⁵, Aidah ALQARNI⁶

- ¹ Department of Pharmacology, College of Pharmacy, King Khalid University, Abha, Saudi Arabia.
- ² Department of Clinical Pharmacy, College of Pharmacy, King Khalid University, Abha, Saudi Arabia.
- ³ Al Ahli Private Hospital, Khamis Mushayt, Saudi Arabia.
- ⁴ Prince Faisal Bin Khalid Cardiac Center, Abha City, Saudi Arabia.
- ⁵ Saudi German Hospital, Abha City, Saudi Arabia.
- ⁶ College of Nursing, King Khalid University, Abha City, Saudi Arabia.

Corresponding author:

Ali Musfer Alqahtani dsmhina17@gmail.com

How to cite: ALQAHTANI, A.M., et al. Attitudes and knowledge about contraceptive use of Saudi married women: a cross-sectional study approach. *Bioscience Journal*. 2023, **39**, e39041. https://doi.org/10.14393/BJ-v39n0a2023-65902

Abstract

The speedy change in the Saudi Arabian community's socio-demographic pattern will significantly influence reproductive attitudes and practices with increasing preferences toward family planning because of the use of contraceptives. The current study was conducted to determine the attitudes and knowledge of married women in the Aseer region of Saudi Arabia regarding contraceptives use. Saudi married women from the Aseer region were the participants of this cross-sectional study. The study's objectives were covered via a standardized questionnaire, and the study comprised of 412 married women. A 100 % participant's response was demonstrated, while 31.8 % of the respondents were 31-40 years old. Most of the participants have a great awareness and knowledge about contraceptives, while (n=324; 78.6%) had previously used contraceptives. Additionally, 297 (72.1%) have intention to use contraceptive methods in the future. Majority of the participants (n=297; 91.6%) considered the economic and family planning as a reason for using the contraceptives, while natural family planning was mostly preferred (n=202; 49%). Logistic regression analysis exhibited significant correlation between the age, education, employment, monthly income and children number. The findings show that Saudi married women have high perceptions and knowledge of contraception. However, more effort is required to raise awareness regarding family planning and contraceptives, whereas the policy makers must exclude the obstacles to women from using contraceptives.

Keywords: Birth. Family planning. Married women. Pills.

1. Introduction

Birth control or contraception refers to the methods used to prevent pregnancy (Moataz et al. 2021). Family planning allows families to exercise their fundamental right to make a conscious and responsible decision on whether or when to have offspring and how many offspring to have (Bekele et al. 2020). Investing in family planning is a "best buy" for prosperity because it can reduce risks in education, health, and wealth, which can help to sustain the environment; ensure women and girls' rights and

prospects, and promote food security (Starbird et al. 2016). Contraception (birth control) prevents pregnancies by intervening with the natural phenomena of ovulation, fertilization, and implantation. There are several types of birth control that function at various stages of the process (Khalil et al. 2018). The rising use of contraceptives not only improved health but also improved economic and educational outcomes (Weldegerima and Denekew 2008). In particular, approximately 2.7 million infant deaths and the loss of almost 60 million healthy lives can be saved by using contraceptives worldwide annually. Contraception can also prevent a minimum of 25 % of all maternal mortality from unwanted pregnancy and insecure abortion and protection against infections that are sexually transmitted (Olugbenga-Bello et al. 2011; Jahan et al. 2017). According to the third Sustainable Development Goal, the global community is determined to lowering the international maternal death ratio from less than 70 per 100,000 births by 2030 (Bekele et al. 2020).

Finding demonstrates various causes for the difficulty to use family planning, including inadequate access to contraceptives; insufficient knowledge of contraceptives; fear of adverse effects; approval relying based on social and religious perspectives; and biasness of the provider. Most of them are not aware of family planning methods and also possess negative behavior towards family planning (McGaughran 2000; Oyedokun 2007; Alhusain et al. 2018). A prior study in Abha city reported that approximately one-third of the women in the survey have had an unplanned pregnancy. Contraception is in high demand among the wider population (Khalil et al. 2018). Another study conducted in Riyadh city concluded that there was a knowledge gap in the use of different contraception methods in male, while education played an immense role in using the different type of contraception (Moataz et al. 2021).

There are three contraceptives available nowadays: a combination of estrogen-progesterone, only progesterone, and continuous/extended pills. In the United States, the birth control pill has been the most commonly prescribed type of contraceptive. About 25 % of women aged 15-44 years presently use contraception as their method of choice (Jensen and Speroff 2000). The majority of women consider birth control pills safe. They involve certain drawbacks, though. The risks connected with current low-dose pills are less than previous versions. However, women who smoke, particularly those over the age of 35, as well as those with specific medical concerns, including a record of blood clots or breast/endometrial cancer, might be recommended against using the pill. The pill may potentially lead to cardiovascular illness, such as hypertension, blood clots, and artery blockage. Nausea, headache, breast soreness, excess weight, irregular bleeding, and depressive symptoms are some of the negative effects of the pill. These adverse effects usually go away after only a few months of using the pill (Farheen 2013; Abdel-Salam et al. 2020; Moataz et al. 2021).

The prevalence of use of contraception in 2018 was 30.4 %, as per the Saudi Household Health Survey. Oral and intrauterine contraceptive were the most popular contraceptives being used in Saudi Arabia (Abdel-Fattah et al. 2007; Elgharabway et al. 2015; Lacalle-Calderon et al. 2017; Khraif et al. 2017). Contraception plays a critical part in improving reproductive health and women's empowerment in Saudi Arabia's present 2030 vision (Albezrah 2015). In Saudi Arabia, there is a minimal study on the difficulties of contraceptive use. No study of contraceptive use was conducted according to the authors' knowledge in the region of Aseer, Saudi Arabia.

As a result, the current study was conducted to determine the attitudes and knowledge of married women in the Aseer region of Saudi Arabia regarding contraceptives use.

2. Material and Methods

Study design

This is a questionnaire-based cross-sectional study that was conducted between August 2020 and November 2020 among Saudi Arabian women in the Aseer region.

Study population and Sample size calculation

The survey was conducted among Saudi women between the ages of 18- >50 who had ever been married and also married for less than or more than five years were chosen as participants. The study included 412 married women, with a 100% response rate. The questionnaire took an average of 5 minutes. Based on statistical data provided by the Saudi General Authority regarding the Aseer Region, approximately 1,100,000 females are residing in this area. The optimal sample size was 385 participants, with a confidence interval of 95% and a 5% margin of error. This was determined using the Raosoft sample size calculator (http://www.raosoft.com/samplesize.html).

Study tools and data collection process

Based on various previous studies that reflect different regions of Saudi Arabia, a self-administered, structured, and closed-ended questionnaire was designed. The survey questionnaire was created using Google forms as part of a cross-sectional study conducted over three months. Several different social media platforms (Twitter and WhatsApp) were used to draw upon a sample of female participants based in the Aseer Region. The questionnaire was distributed across several females WhatsApp groups of various activities to target the female population of the Aseer region. The survey was translated into Arabic. Initially, a self-administered questionnaire was created, and the pilot sample was then validated to ensure its quality and internal reliability. The Cronbach Alpha factor was determined as 0.799. In addition, three experts working within this field provided advice regarding this process. The questionnaire was divided into two sections. The first section collected demographic information, and the second section contained closed-open and closed-ended questions aimed at learning about participants' attitudes on contraception.

Ethical considerations

The data collection processes were cross-sectional, and no personal information about the participants was sought. The remaining information was kept confidential during the study as well as during data analysis. The study was approved under reference number ECM#2020-3308 by the Committee on Research Ethics of King Khalid University.

Statistical analysis

The questionnaires completeness and accuracy were confirmed, and then entered into SPSS version 24 (IBM Corp., Armonk, NY, USA). The participants' demographics were represented descriptively. As all variables were categorical in natures, they were reported as frequencies and percentages. A multiple logistic regression model was conducted to investigate the factors that affect the intention to use contraceptive methods in the future. A particular independent variable resulted in a p value equal or less than 0.20 upon conducting bivariate logistic regression, was included in the final multiple logistic regression. Odd ratio and 95% confidence intervals were tabulated and analyzed.

3. Results

A total of 412 females were included in the study that completed the questionnaire with a response rate of 100%. The majority of the female was between 31-40 years old (31.8%). The socioeconomic data of the women who participated in the study were registered with detailed history and summarized in Table 1. Of the total 412 women, the literacy rate and high educated level were found in 256 women, whereas only 2.7% (11 women) were illiterate. When the questions related to occupation, majority of the women were found housewives 273 (66.3%) while the minority were working in government jobs 23.1%, private jobs 4.4 % and the remaining were students 6.3%. Owing to the background, 221 women were found to have less than 3000 Saudi Riyal (SR) monthly income while 99

women have more than 8000 SR wages. Regarding their family background majority of them have less than 3 children and only 12.9% have more than 5 children with duration of marriage more than seven years for 58.5 % and 29.6% less than five years.

Table 1. Demographic representation of married women from Aseer region, Saudi Arabia.

Demographic	n (%)	
	n=412	
Age group		
18-25 years	75 (18.2)	
26-30 years	128 (31.1)	
31-40 years	131 (31.8)	
41-50 years	65 (15.8)	
More than 50 years	13 (3.2)	
Educational level		
Illiterate	11 (2.7)	
Primary or secondary schools	41 (10)	
High school	104 (25.2)	
University or higher	256 (62.1)	
Employment status		
Housewife	273 (66.3)	
Student	26 (6.3)	
Government job	95 (23.1)	
Privet job	18 (4.4)	
Monthly income		
Less than 3000 Saudi Riyal (SR)	221 (53.6)	
3000 – 5000 SR	44 (10.7)	
5000 – 8000 SR	48 (11.7)	
More than 8000 SR	99 (24)	
Number of children		
None	58 (14.1)	
Less than 3	197 (47.8)	
3-5	104 (25.2)	
More than 5	53 (12.9)	
Duration of marriage	· ,	
Less than 5 years	122 (29.6)	
5 – 7 years	49 (11.9)	
More than 7 years	241 (58.5)	

Overall, all respondent's responses had good awareness and knowledge regarding contraceptives (Table 2). The most common cause for using contraceptives is for economic reasons and family planning. Most of the participants, 78.6%, had previously used at least one of different natural family planning methods, like Coitus interruptus (withdrawal or pulling out) method (65.3%), tracking the period (15.3%), Cervical mucus method (CMM) (1.9%) and Periodic abstinence (fertility awareness) method (12.3%). At the same time, nine women did not answer this question. When asked about their knowledge regarding the new contraceptive methods nowadays, e.g., intrauterine device, oral contraceptive pills, emergency contraceptive pill, or contraceptive patch, around 47.8 % of the participants chose the contraceptive patches as the new contraceptive method. Out of 412 participants, 41.5 % of them had used contraceptives without medical prescription, which mainly contributed to being busy and not having enough time to visit the gynecologists (56.7%). Another reason is the high cost of obstetrics and gynecology clinics (24.5%) or the long waiting time in obstetrics and gynecology clinics (15.2%). Among all the participants, 35.4 % had used hormonal contraceptive methods through medical consultation (55.4%), from you (Self-medication) (26%), Advice from friends or relatives (15.7%), social media, Medical TV programs (2 %). Most women have the intention to use contraceptive methods in the future by 72.1%. The variables that calculated the logistic regression model for the future use of contraceptive method was presented in Table 3.

The potential factor affecting the intention to use contraceptive methods in the future was connected with: age at 26-30 years (p-value=0.059), 31-40 years (p-value=0.052) and 41-50 years (p-value=0.059)

values=0.018), While the previous use of contraceptives also has a great impact (*p-value <0.001*). Additionally, multiple logistic regression examining potential factors affecting the intention to use contraceptive methods in the future has been shown in Table 4.

Table 2. Perception of contraceptive use among married women from Aseer region, Saudi Arabia.

Questions referred to perception of contraceptive methods among study	n (%)
Participants	n=412
Previous use of contraceptives (yes)	324 (78.6)
Reasons for contraceptive use (n = 324)	
Health reasons	27 (8.4)
Economic reasons and family planning	297 (91.6)
Preference of natural family planning (yes)	202 (49)
Preferred type of natural family planning (n = 202)	
Calendar calculation	31 (15.3)
Withdrawal method	132 (65.3)
Basel body temperature	25 (12.3)
Cervical mucus monitoring	4 (1.9)
No answer	10 (4.9)
Which of the following contraceptive methods are considered to be new/recent?	
Intra uterine device	92 (22.3)
Oral contraceptive pills	65 (15.8)
Emergency contraceptive pill	58 (14.1)
Contraceptive patch	197 (47.8)
Previous use of contraceptives without medical prescription (yes)	171 (41.5)
Reasons for using contraceptive methods without medical prescriptions (n = 171)	
Self-busyness and lack of time	97 (56.7)
The waiting time in doctors' clinics is long	26 (15.2)
The high cost of doctors' private clinics	42 (24.5)
No answer	6 (3.5)
Previous use of hormonal contraceptive methods (yes)	146 (35.4)
Motives of using hormonal contraceptive methods (n = 146)	
Medical consultation	81 (55.4)
Advice from friends or relatives	23 (15.7)
Self-motivation	38 (26)
Internet/ social media	3 (2)
No answer	1 (0.6)
Intention to use contraceptive methods in the future (yes)	297 (72.1)

Table 3. The logistic regression analysis for the future use of contraceptive method.

Variable	Wald test	P value
Age	16.876	<0.001
Educational level	9.869	0.002
Employment status	6.408	0.011
Monthly income	13.781	< 0.001
Number of children	7.032	0.008
Duration of marriage	0.907	0.341
Presence of chronic diseases	0.091	0.763
Previous use of contraceptives	23.014	< 0.001

4. Discussion

The use of contraceptives has increased global interest in protecting both mothers and infants from various morbidities and mortalities associated with recurrent and unplanned pregnancies and other social and economic benefits (Albezrah 2015). In recent years, contraception usage has substantially increased in Saudi Arabia due to its good influence on preventing undesirable pregnancies and curing certain illnesses. This study was designed to assess the knowledge and attitude on contraceptives among the married women in Abha city and find the association between socio-demographic variables with

knowledge and attitude scores. Based on the findings, it is concluded that, on average, most women have adequate knowledge on using contraception as a whole, with 78.6 % of participant's stated using different contraceptives for different periods. This finding in one aspect demonstrated that in Saudi Arabia, there is a high frequency among married women of contraception, in line with the few reports recorded by local studies. For example, in one study related to contraception among women in Riyadh city, 53.4 % of the participants reported using contraception. Additionally, in another report of contraception using among women in Al Taif city, 68.7% of the participants reported using contraception. Also, a study conducted in Al-Qassim province showed that 502 women (83.7%) revealed acceptance of using contraceptives for birth spacing (Al-Sheeha 2010).

Table 4. Multiple logistic regression examining potential factors affecting the intention to use

contraceptive methods in the future.		
Variable	OR (95% CI)	P-value
	Age groups	
18-25 years	Reference	
26-30 years	0.4 (0.154-1.037)	0.059
31-40 years	0.369 (0.135-1.009)	0.052
41-50 years	0.237 (0.072-0.785)	0.018
More than 50 years	0.225 (0.045-1.133)	0.071
	Educational level	
Illiterate	Reference	
Primary or secondary schools	0.698 (0.124-3.913)	0.682
High school	3.264 (0.596-17.887)	0.173
University or higher	3.375 (0.613-18.583)	0.162
E	Employment status	
Housewife	Reference	
Student	0.648 (0.192-2.187)	0.485
Government job	0.512 (0.222-1.181)	0.117
Privet job	1.416 (0.332-6.035)	0.638
	Monthly income	
Less than 3000 Saud Riyal (SR)	Preference	
3000 – 5000 SR	0.515 (0.23-1.153)	0.106
5000 – 8000 SR	0.344 (0.152-0.781)	0.011
More than 8000 SR	0.447 (0.189-1.057)	0.067
ſ	Number of children	
None	Reference	_
Less than 3	0.692 (0.209-2.289)	0.547
3-5	1.156 (0.494-2.706)	0.738
More than 5	0.784 (0.283-2.17)	0.639
Previous use of contraceptives	6.5 (3.437-12.293)	< 0.001

Cultural differences, educational backgrounds and even different religions may all play a role in use or don't use contraception in modern individuals. Therefore, we can determine effective responses and measures necessary by assessing why women use or not use contraception and the reasons that play a significant part in choosing the technique. The most popular reason for using contraception, as it is around the world, is to avoid recurring and unplanned pregnancy, according to the findings of this survey. The Saudi community's socioeconomic pattern has evolved rapidly in recent years due to women's empowerment, which has resulted in changes in pregnancy attitudes and practices and, as a result, preferred methods to birth spacing utilizing various contraceptives. Explaining why females prefer to use contraception due to three major factors: a high number of the study participants relied on physician advice, which tends to be more reliable; self-motivation for using the oral contraceptive, or advice from family and friends. These results reveal that physician advice is the most commonly cited resource used among women who chose to use contraceptive medication. We observed that the health workers had a narrow scope when spreading information on contraception methods reflecting conservative society and the community's familial influence. The lack of knowledge limits women's options when it comes to contraceptives. The international contraceptive knowledge and awareness survey, which included 7,000

women aged 16 to 40 years across 14 countries, revealed that women could not take advantage of novel contraceptive techniques since their contraceptive knowledge was limited to the pill (Al-Sheeha 2010).

The distinguishing of the most common contraception methods used among women is crucial since the gynecologists would use this information to assess the appropriate approaches to educate women in contraception, and their side effects. Also, it can help physicians to recommend women about other available contraception options which they might be unaware of, therefore improving community awareness, supplying right and appropriate counseling, and correct misbelieves related to contraceptive types (Jahan et al. 2017).

Evaluating the knowledge and incidence of side effects is critical because it demonstrates the opportunity for women to experience side effects that they are unaware of it. It also includes information on the most frequently reported adverse effects. Studies found no differences between the most widely reported adverse effects, such as moodiness and excess weight, and the women's well-known side effects. In contrast, the actual prevalence of decreased libido was substantial, and women were unaware of this side effect. The doctors can address these differences in awareness and the occurrence of side effects so that consumers are informed of the unusual adverse effects (Costa 1995).

This study shows the present rate of use of contraceptives is acceptable, yet the field of study is regarded as a developing and relatively closed group. The contraceptive prevalence rate balances the national standard by making more significant efforts to increase the knowledge of the population.

5. Conclusions

The study findings give insight into married women's attitudes on contraceptives use in the Aseer region of Saudi Arabia. The study shows that the age, education, employment status, monthly income, and the number of children were significantly related to contraceptive use. It is proposed that continuous efforts are required to inform and promote the proper use of contraception.

Authors' Contributions: ALQAHTANI, A.M.: conception and design; ORAYJ, O.: conception and design; ALSHAHRANI, M.A.: conception and design; ALDAHISH, A.: acquisition of data, analysis and interpretation of data; ALQAHTANI, T.: acquisition of data, analysis and interpretation of data; ALSHAHRANI, A.: drafting the article; ALSHAHRANI, A.: drafting the article; ALSHAHRANI, A.: drafting the article; ALQARNI, A.: conception and design, drafting the article, critical review of important intellectual content. All authors have read and approved the final version of the manuscript.

Conflicts of Interest: The authors declare no conflicts of interest.

Ethics Approval: Approved under reference number ECM#2020-3308 by IERB of King Khalid University.

Acknowledgments: The authors would like to thank King Khalid University for funding this project. This research was funded by deanship of research at King Khalid University, grant number # GRP/340/42.

References

ABDEL-FATTAH, M., et al. Determinants of birth spacing among Saudi women. Journal of Family and Community Medicine. 2007, 14(3), 103.

ABDEL-SALAM, D.M., et al. Prevalence, correlates, and barriers of contraceptive use among women attending primary health centers in aljouf region, Saudi Arabia. *International Journal of Environmental Research and Public Health*. 2020, **17**(10), 3552. https://doi.org/10.3390%2Fijerph17103552

ALBEZRAH, N.A. Use of modern family planning methods among Saudi women in Taif, KSA. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2015, **4**(4): 990-994. https://dx.doi.org/10.18203/2320-1770.ijrcog20150412

ALHUSAIN, F., et al. Patterns and knowledge of contraceptive methods use among women living in Jeddah, Saudi Arabia. *Saudi Journal for Health Sciences*. 2018, **7**(2), 121-126.

AL-SHEEHA, M. Awareness and use of contraceptives among Saudi women attending primary care centers in Al-qassim, Saudi Arabia. *International Journal of Health Sciences*. 2010, **4**(1), 11-21.

BEKELE, D., et al. Knowledge and attitude towards family planning among women of reproductive age in emerging regions of ethiopia. *Journal of Multidisciplinary Healthcare*. 2020, **13**, 1463–1474. https://doi.org/10.2147/JMDH.S277896

ELGHARABWAY, R.M., AHMED, A.S. and ALSUHAIBANI, R.A. Awareness, prevalence, and determinants of birth control methods use among women in Saudi Arabia. *International Archives of Medicine*. 2015, **8**, 61-70. https://doi.org/10.3823/1844

FARHEEN, A. Ever use of contraceptives among women attending primary health care centers at Abha, Saudi Arabia. *International Journal of Current Research Reviews*. 2013, **5**(10), 26.

JAHAN, U., et al. Awareness, attitude and practice of family planning methods in a tertiary care hospital, Uttar Pradesh, India. *International Journal of Reproduction, Contraception, Obstetrics and Gynecol*ogy. 2017, **6**(2), 500-506. https://dx.doi.org/10.18203/2320-1770.ijrcog20170370

JENSEN, J.T. and SPEROFF, L. Health benefits of oral contraceptives. *Obstetrics and Gynecology Clinics of North America*. 2000, **27**(4), 705-721. https://doi.org/10.1016/s0889-8545(05)70169-8

KHALIL, S.N., ALZAHRANI, M.M. and SIDDIQUI, A.F. Unmet need and demand for family planning among married women of Abha, Aseer Region in Saudi Arabia. *Middle East Fertility Society Journal*. 2018, **23**(1), 31-36. http://dx.doi.org/10.1016/j.mefs.2017.07.004

KHRAIF, R., et al. Dynamics of contraceptive use: A study of King Saud University women staff, Riyadh. *Middle East Fertility Society Journal*. 2017, **22**(1), 18-26.

LACALLE-CALDERON, M., PEREZ-TRUJILLO, M. and NEIRA, I. Fertility and economic development: Quantile regression evidence on the inverse J-shaped pattern. *European Journal of Population*. 2017, **33**(1), 1-31. https://doi.org/10.1007/s10680-016-9382-4

MCGAUGHRAN, A.L. Oral contraceptives and prevention of implantation. American Family Physician. 2000, 61(9), 2605.

MOATAZ, S., et al. Knowledge, attitudes, and perception patterns of contraception methods: Cross-sectional study among Saudi males. Urology *Annales*. 2021, **13**(3): 243–253. https://doi.org/10.4103/ua.ua-42-20

OLUGBENGA-BELLO, A.I., ABODUNRIN, O.L. and ADEOMI, A.A. Contraceptive practices among women in rural communities in South-Western Nigeria. *Global Journal of Medical Research*. 2011, **11**(2), 1-8.

OYEDOKUN, A.O. Determinants of contraceptive usage: lessons from women in Osun State, Nigeria. *Journal of Human Social Science*. 2007, **1**(2), 1-14.

STARBIRD, E., NORTON, M. and MARCUS, R. Investing in family planning: key to achieving the sustainable development goals. *Global Health Science Practice*. 2016, **4**(2), 191-210. https://doi.org/10.9745%2FGHSP-D-15-00374

WELDEGERIMA, B. and DENEKEW, A. Women's knowledge, preferences, and practices of modern contraceptive methods in Woreta, Ethiopia. *Research in Social and Administrative Pharmacy*. 2008, **4**(3), 302-307. https://doi.org/10.1016/j.sapharm.2007.10.001

Received: 20 June 2022 | Accepted: 5 November 2022 | Published: 24 February 2023



This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.