



CONTRACEPTION AWARENESS AND USE AMONG FEMALES IN SAUDI ARABIA: A SYSTEMATIC REVIEW

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Abstract

Objectives: To investigate women's knowledge and use of contraception in Saudi Arabia. **Methods:** We conducted a thorough search of PubMed, SCOPUS, Web of Science, and Google Scholar to find pertinent literature. Rayyan QRCI was utilized during the entire process. **Results:** We included fifteen studies with a total of 6766 women. The earliest studies stated that Saudi women lack understanding regarding the use of contraceptive methods and what to do if they miss more than two pills in a row. However, studies conducted within the last five years indicated that Saudi women are more conscious of the need to utilize contraceptives. They also have positive attitudes about family planning and are aware of it. Older age, higher education, employed women, higher monthly income, and parity (+4) were significantly associated with contraceptive use. Regarding emergency contraception (EC), Saudi women continue to have low levels of knowledge, awareness, and use. They also possessed little awareness of IUDs and were full of misconceptions and fears, these concerns included the possibility of ectopic pregnancy and genital infections. **Conclusion:** This systematic review recorded notable progress in the awareness and attitudes of Saudi women about contraception methods use. However, lack of knowledge regarding EC, IUD use, and adverse effects of contraception methods was prevalent. Regrettably, there is no proof offered on how educational programs affect how comfortable clients are using contraception or how their attitudes toward contraceptive techniques evolve. Future research ought to evaluate how instructional interventions affect how comfortable clients are using contraception. These results emphasize the necessity of healthcare professionals and nurses educating the public about reproductive health.

Keywords: Contraception; Awareness; Women; Saudi Arabia; Systematic review.

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Introduction

Contraception is defined as the prevention of conception through means other than abstention from coitus. There are numerous contraceptive methods available, each with pros and cons of their own. The perfect contraceptive should be affordable, easy to use, reversible, effective, forgettable, and safe [1].

There are numerous advantages to preventing unintended births for women, their families, and society at large. It is crucial for maintaining low rates of maternal and neonatal morbidity and death as well as for advancing the health of mothers and children [2]. Despite these benefits, there is still a significant disparity between the general need for family planning and the usage of modern forms of contraception in nations where the majority of women use traditional rather than modern means of contraception [3].

Approximately 50% of women in Middle Eastern nations who are between the ages of 15 and 49 use birth control techniques. This figure suggests that Middle Eastern countries need to introduce educational family planning programs, promote knowledge, and utilize contraceptives more frequently [4]. Unwanted births that arise from not using contraception can endanger the health of women while also burdening the community. In addition, the sociodemographic landscape of Saudi society has swiftly evolved in tandem with the rise in the work rate of women. Due to these social shifts, the majority of Saudi women who are of reproductive age now consider the use of contraception to be essential [5].

Proper and efficient use of contraceptive techniques has been linked to a high level of contraceptive knowledge [6]. The proper use of contraception can therefore prevent unwanted pregnancies, unsafe abortions, and STDs like HIV [7].

Women's knowledge and use of contraception in Saudi Arabia are investigated in this systematic review, which also looks at whether and how much modern contraception advice is provided to women in Saudi medical facilities.

Methodology

Study Design and Duration

The methods used in this systematic review were compliant with PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidance [8]. The comprehensive evaluation began in May 2019.

Search strategy

A thorough search was carried out utilizing four important databases: PubMed, SCOPUS, Web of

Science, and Google Scholar to locate pertinent content. We looked through databases with just English-language content, taking into consideration each one's particular requirements. We transformed the following keywords into PubMed Mesh terms in order to locate the pertinent papers; "Contraception," "Contraceptive methods," "Women," and "Saudi Arabia." "OR," "AND," and "NOT," three Boolean operators, matched the necessary keywords. Full-text English publications, freely accessible articles, and human trials were among the search results.

Selection criteria

Inclusion criteria:

We considered the following criteria for inclusion in this review:

- Studies that discussed the awareness of Saudi women towards contraception use.
- Adult participants (>18 years).
- Only human subjects.
- English language.
- Free accessible articles.

Exclusion criteria:

- The following study designs were excluded: case reports, comments, replies, and letters to the editors.
- Studies that discussed male contraception.

Data extraction

Rayyan (QCRI) was used for two output verifications of the search strategy [9]. The researchers assessed the abstracts' and titles' relevance to the combined search results using inclusion/exclusion criteria. Every manuscript that satisfied the inclusion requirements was given thorough consideration by the reviewers. The writers discussed dispute-resolution techniques. Utilizing a pre-made data extraction form, the authorized study was uploaded. The authors extracted data on the study title, authors, study year, city, participants, age, study objectives, type of patients, and main outcomes.

Strategy for data synthesis

A qualitative evaluation of the research's findings and components was produced by compiling summary tables with data from pertinent studies. Once the data for the systematic review was collected, the optimal method for utilizing the data from the included study articles was selected.

Results

Search results

The systematic search produced 628 study articles, of which 221 duplicates were eliminated.

After 407 studies had their titles and abstracts screened, 359 were not included. After 48 reports were requested to be retrieved, 4 articles were found. After screening 44 studies for full-text assessment, 14 were rejected due to incorrect study results, 9 were rejected due to incorrect

population type, 4 articles were editor's letters, and 2 were abstracts. This systematic review included fifteen eligible study articles. A synopsis of the procedure for choosing studies is provided in **Figure 1**.

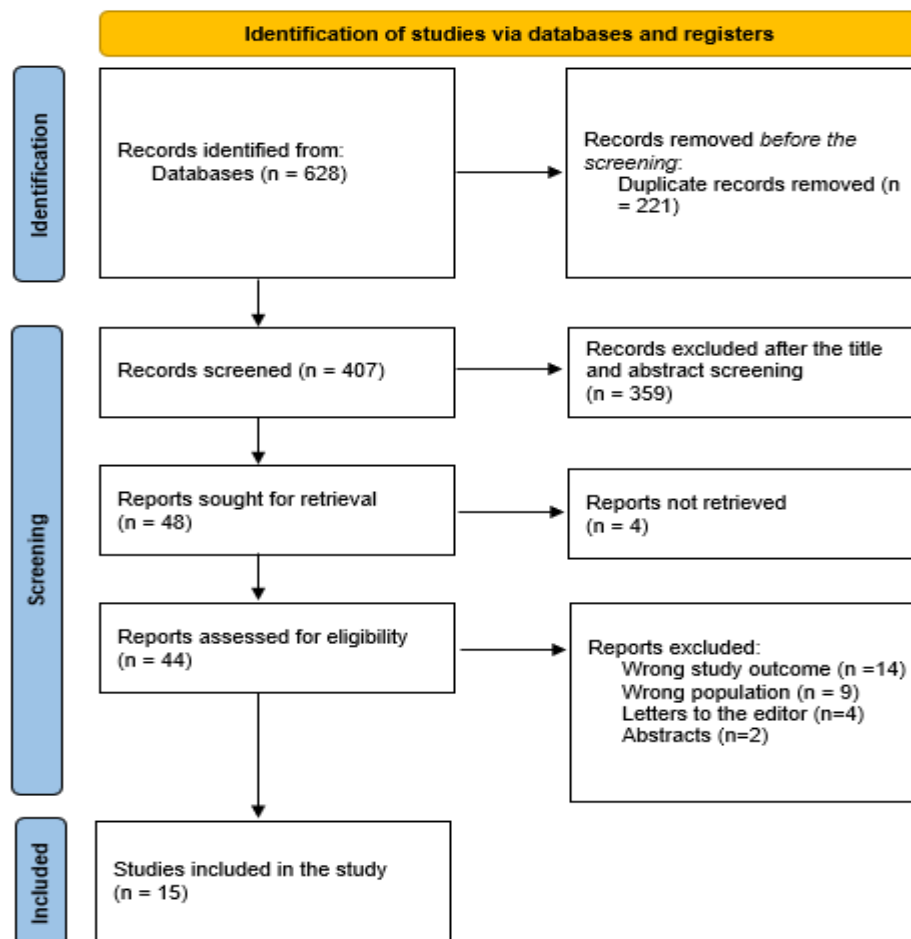


Figure (1): Study selection is summed up in a PRISMA flowchart.

Characteristics of the included studies

Table (1) shows the sociodemographic details of the research articles that are included. Our results included fifteen studies with a total of 6766 women. All of the included studies were cross-sectional studies [10-24]. Four studies were conducted in Riyadh [12, 15, 17, 18,20,21], three in Abha [10,14, 20], two in Jeddah [16, 18], , one in Al-Qassim [11], one in Al-Khobar [13].

Table (2) presents the clinical characteristics. Most of the included studies mentioned the contraception methods collectively and did not specify a certain tool [10-14, 19, 22, 24]. Three discussed the awareness towards EC [15, 17, 21], two towards OCPs [20], one towards missed contraceptive pills [16], and one towards IUD [18].

The earliest studies conducted in 2010 [11], 2011 [13], 2012 [19], and 2015 [16] stated that Saudi women lack understanding regarding the range of

contraceptive methods and what to do if they miss more than two pills in a row or puked two hours after taking an OCP. They also reported using contraceptive methods only to prevent unintended pregnancies. This indicates an ignorance of family planning concepts.

However, studies conducted within the last five years indicated that Saudi women are more conscious of the need to utilize contraceptives [14, 21]. They also have positive attitudes about family planning and are aware of it [19, 21]. Older age, higher education, employed women, higher monthly income, and parity (+4) were significantly associated with contraceptive use [10, 11, 12].

Regarding EC, Saudi women continue to have low levels of knowledge, awareness and use [15, 17, 21]. They also possessed little awareness of IUDs and were full of misconceptions and fears, these

concerns included the possibility of ectopic pregnancy and genital infections [18].

Table (1): Sociodemographic characteristics of the included participants.

Study	Study design	City	Participants	Age
10. khalil et al., 2018 [10]	Cross-sectional	Abha	412	18 to >50
Al Sheeha, 2010 [11]	Cross-sectional	Al-Qassim	502	33.5±4.1
Alsalem et al., 2018 [12]	Cross-sectional	Riyadh	432	19-49
Al-Turki, 2011 [13]	Cross-sectional	Al-Khobar	195	33.23 ± 7.3
Al Sheeha et al., 2010 [14]	Cross-sectional	Al-Qassim	450	15-49
Karim et al., 2015 [15]	Cross-sectional	Ri yadh	242	37.9 ± 10.6
Iftikhar et al., 2015 [16]	Cross-sectional	Jeddah	357	32.6 ± 6.8
Alharbi et al., 2019 [17]	Cross-sectional	Riyadh	370	32.3 ± 6.3
Alsalem et al., 2018 [18]	Cross-sectional	Abha	269	32.4 ± 7.7
Khraif et al., 2017 [19]	Cross-sectional	Riyadh	352	32 ± 9.1
Al-Musa et al., 2019 [20]	Cross-sectional	Abha	570	18->40
Al-Shaikh et al., 2012 [21]	Cross-sectional	Riyadh	648	18-49

*NM=Not-mentioned

Table (2): Clinical characteristics and outcomes of the included studies.

Study	Objectives	Contraception type	Main outcomes
10. Khalil et al., 2018 [10]	To find out married women's opinions and knowledge about using contraceptives in the Aseer region of Saudi Arabia.	Variety of contraceptive methods	Older age, higher education, employed women, higher monthly income, and the number of children were significantly associated with contraceptive use.
Al Sheeha, 2010 [11]	To determine Saudi women's attitudes toward using contraceptives	Variety of contraceptive methods	The current study indicates a lack of understanding regarding the range of contraceptive methods. The use of contraceptives is significantly influenced by women's age, education level, parity (+4), and employment status.
Alsalem et al., 2018 [12]	To determine the information and attitudes Saudi women have regarding contraception, as well as the prevalence of its use.	Variety of contraceptive methods	The three main independent predictors of contraceptive use were women with one to three children, women who accepted contraceptive methods, and husbands who approved contraceptive methods.
Al-Turki, 2011 [13]	To learn about the experiences and methods of birth control used by Saudi Arabian women.	Variety of contraceptive methods	Contraception is used by most Saudi women to prevent unintended pregnancies in their conservative environment.
Al Sheeha et al., 2010 [14]	To evaluate women of reproductive age's knowledge, attitudes, and practices surrounding the use of contraceptives	Variety of contraceptive methods	Saudi women in Jazan are more conscious of the need to utilize contraceptives. The most popular sources of information were friends and family, while the most widely employed techniques were IUDs and tablets.
Karim et al., 2015 [15]	To determine married women of childbearing age's EC knowledge, attitudes, and impediments.	EC	Saudi women are incredibly ignorant about EC. It is concerning that the least number of information sources were indicated to be health care practitioners. The main obstacles were women's worries about potential EC side effects and how they would affect their health.
Iftikhar et al., 2015 [16]	To investigate women's knowledge of the use of oral contraceptives and evaluate the variables related to OCP users' awareness of OCPs	Missed contraceptive pills	Despite their perceptions to the contrary, women's understanding regarding the use of oral contraceptives was significantly lacking. Women were especially ignorant about what to do if they missed more than two pills in a row or puked two hours after taking an OCP.
Alharbi et al., 2019 [17]	To ascertain the EC practices, attitudes, and knowledge.	EC	Saudi women continue to have low levels of EC knowledge, awareness, and use, but they do have an optimistic outlook on using EC in the future.
Alsalem et al., 2018 [18]	To look at women's attitudes and knowledge about using intrauterine devices (IUDs) as a form of contraception and to look into any potential	IUD	Women who visited outpatient clinics in Jeddah had little awareness of IUDs and were full of misconceptions and fears. These concerns were particularly focused on the possibility of ectopic pregnancy and genital infections, which could be a major psychological barrier to IUD use.

	misunderstandings about the advantages and drawbacks of these devices.		
Khraif et al., 2017 [19]	To assess the level of understanding, attitude, and usage of contraception	Variety of contraceptive methods	They discovered that participants had a positive attitude about family planning and were aware of it.
Al-Musa et al., 2019 [20]	To help in developing strategies that may enhance family planning in Abha	OCP	More than half of respondents had good understanding about contraception, and a substantially higher percentage of respondents knew about it. Contraceptive method use is currently less common nationwide than in many areas. Similar to previous studies, oral contraception was chosen as the preferred method of contraception.
Al-Shaikh et al., 2012 [21]	To assess knowledge regarding adherence and safety of oral contraceptive pills (OCP) in Saudi women	EC	Although there is limited use of EC due to ignorance and lack of understanding, participants have positive sentiments about it.

Discussion

There is a notable and interesting shift in the awareness of Saudi women about contraception methods. As the earlier studies conducted between 2010 and 2015 reported that Saudi women lack understanding regarding the range of contraceptive methods and what to do if they miss more than two pills in a row or puke two hours after taking an OCP. They also reported using contraceptive methods only to prevent unintended pregnancies. This indicates an ignorance of family planning concepts [11, 13, 22, 16]. While in the last five years (2015-2020), studies reported that Saudi women are more conscious of the need to utilize contraceptives [14, 24]. They also have positive attitudes about family planning and are aware of it [19, 24]. On the other hand, our study found that Saudi women need to know more about the adverse effects of contraception methods. This shift indicates and highlights the effort the Saudi government and health facilities invested in raising awareness about family planning and contraception use.

These investigations found that Saudi society is aware of the concept of contraception. Women's increasing awareness is probably a result of the changes in Saudi society that have empowered them to read more and explore the Internet for information. These changes have also encouraged women to obtain higher education. Saudi society has drastically transformed in the last few years, especially in terms of women's work and education; many believe that these aspects play a significant role in shaping women's attitudes, beliefs, and behaviors surrounding contraceptives [25]. Similarly, research carried out in Qatar found that as education levels rose, so did understanding of family planning [26]. Apart from women's education, family planning knowledge is probably increased by the media and TV shows. Numerous TV shows and channels feature medical themes that touch on concerns pertaining to women and families.

A similar systematic review conducted by **Bamuffleh et al.** concluded that it was common knowledge that Saudi women used contraception. Oral contraceptive pills, IUDs, fertility awareness (schedule), lactational amenorrhea, withdrawal, male condoms, injections, and fallopian tube ligation were the most widely used methods of contraception. Family and friends were the primary sources of information about contraceptives for women. Additionally, nurses' involvement in family planning and contraception education is quite limited [27].

We also found that Saudi women continue to have low levels of knowledge, awareness, and use of

EC [15, 17, 21]. Another systematic review among Australian women also concluded that women still lack knowledge about ECPs' effectiveness, safety, accessibility, and working timeframes, which narrows the window of opportunity for ECP use [28]. **Leelakanok et al.** also reported low levels of knowledge existed about EOCs, and misconceptions or unfavorable views regarding their usage or prescription remained common [29]. These results indicate the need for educational and health campaigns for both women and healthcare personnel about EC.

This study also reported that Saudi women possessed little awareness of IUDs and were full of misconceptions and fears, these concerns included the possibility of ectopic pregnancy and genital infections [18]. Similarly, a different analysis carried out in Ethiopia revealed that postpartum women used IUDs at a low rate [30].

There was no research that looked into modern contraception counseling in Saudi Arabia that was found in this review. Nonetheless, a number of studies found that adding family planning counseling to postpartum services increased the proportion of women using contemporary methods of contraception. This suggests that well-designed educational interventions can raise women's knowledge of contemporary methods of contraception and help them use them appropriately [31-33].

Conclusion

This systematic review recorded notable progress in the awareness and attitudes of Saudi women about contraception methods use. However, lack of knowledge regarding EC, IUD use, and adverse effects of contraception methods was prevalent. Regrettably, there is no proof offered on how educational programs affect how comfortable clients are using contraception or how their attitudes toward contraceptive techniques evolve. Future research ought to evaluate how instructional interventions affect how comfortable clients are using contraception. These results emphasize the necessity of healthcare professionals and nurses educating the public about reproductive health.

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