

**Original Research Article****Contraceptive awareness in reproductive aged Saudi women of Hail region**Nuzhat Parveen<sup>\*1</sup>, Buthina Hammoud AlShammari<sup>2</sup>, Linh Abdullah AlRashedy<sup>2</sup>, Alanoud Bader Fahad AlRashed<sup>2</sup>, Tahany Amesh Saad Alarjawi<sup>2</sup>, Meznah Saud AlDuhaim<sup>2</sup><sup>1</sup>Assistant Professor Gynecology and Obstetrics, College of Medicine/University of Hail, KSA<sup>2</sup>Medical students 4<sup>th</sup> year, College of Medicine/University of Hail, KSA**\*Corresponding Author:**

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**Abstract:** The Aim of the study was to ascertain contraceptive awareness in Saudi women of Hail region and to reveal their knowledge with respect to their specific socio demographic factors. Cross sectional survey (n=500) conducted in reproductive age Saudi women of Hail region. Sample population was approached by direct interview by undergraduate medical students and questionnaire shared by social media. Questionnaire included their age, education, knowledge, use of any method and contraceptive preferences. 500 Saudi women of Hail region were approached from 15 to 55 years. Most women (82%) interviewed were highly educated up to university level. 47% of respondents were young 25 to 34 years of age, 31 % were 35 to 44 years. 93% of women were familiar to contraception before but 77.8 % used it ever in their lives. A good percentage of women (88.0%) used it without prescriptions. 71.2% get this information from media (social, print and broadcasting media), 68.8% from discussion with relatives and same percentage were educated by their doctors. Oral contraceptive pills are the most familiar method while other methods need to be publicized. 55.2% of respondents feel that their knowledge about different contraceptive methods is not enough and they urged on the need to provide more awareness and education about this. There is a great need to create more awareness about different methods and their appropriate use in Hail region. Health professionals as well as social media should be involved in this education and motivation.**Keywords:** awareness, contraception, Saudi, young women, Hail

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**INTRODUCTION**

Awareness is the state or condition of having knowledge with consciousness [1]. Contraception (birth control) means preventing unwanted pregnancy by interfering with the normal process of ovulation, fertilization or implantation. There are different kinds of birth control practices that halt the process at different stages [2]. Combination of two will be the state of being aware of various methods, uses and side effect of Contraception.

There are many types of contraceptive options available. The most effective of modern methods are combined oral contraceptives (COCs) containing two hormones (estrogen and progesterone) available in form of pills, dermal patches and vaginal rings. It can prevent pregnancy in more than 99% of case with correct use. This is the most commonly used method [3]. The second frequently used method is Progesterone-only contraception which contains only progesterone in different forms, 99% effective with correct and consistent use. It is available in the form of pills, injections, intrauterine systems and sub dermal implants. Female condoms 90% effectiveness with correct use and 79% as commonly used. Traditional

methods are the oldest one of family planning techniques. There are two types Calendar method or rhythm method and Withdrawal (coitus interruptus). Effectiveness of Withdrawal is 96% with correct and consistent use. After it comes Calendar method with 91% effective by WHO [3].

A glance at studies performed in different parts of the world showed that the overall knowledge of contraception is more compared to their actual usage. Internationally more than 50 % of women have good knowledge and usage of different contraceptive options [4, 5].

Compared with nearby Islamic Arab countries which share the same culture and ethical values, variation in the use of contraception can be seen. The majority showed a higher user rate than Saudi Arabia but its low in UAE, 27.5% and in Yemen it is 23.1% [6].

Hail is one of the northern regions of Saudi Arabia, covers 103,887 km<sup>2</sup> with total Saudi population of 684619 which contributes 2.1 % of total Saudi population of KSA. Women make 44.5% of total Hail

population and are observed to follow the religious rituals in which contraception is permissible only if the life of the mother is endangered by becoming pregnant, repeated pregnancies weaken the mother's body and if another pregnancy would seriously affect the care and upbringing of the existing child.

Islam is not against contraception. Some of Prophet's (PBUH) companions resorted to coitus interruptus, which was the only method of family planning known to them, and the Prophet was aware of what they did. He did not instruct them to stop, nor did he tell them that what they did was forbidden.

Benefits of contraception are not only to limit number of children but proper birth spacing, the well-being and health of the women, preventing pregnancy related health risks in women and growth and development of their children to reducing infant mortality. There is a great need to create more awareness regarding different sort of contraception to regulate the population growth and thus growth and development of communities.

**METHODOLOGY**

This is a cross-sectional study performed from October 2016 to February 2017. This study performed

in Hail region. Reproductive aged Saudi women of Hail region were included in the study. 500 women approached in institutions, hospitals, families and through social media who fulfilled the inclusion criteria and consented to share their information. Selected women were interviewed by female medical students. Variables used were age, education level, knowledge about contraception as in general and specific methods, ever used contraception and which method, sources of their information and need for more education regarding contraceptive issues. Statistical analyses were performed using SPSS version 20 by descriptive statistics.

**RESULTS**

In this study we took the sample from 500 Saudi women from Hail and its villages. Most of the participants age ranges between 25-34 years (n=235, 47%), followed by women between 35-44 years (n=159, 31%), then the group ranges between 15-24 years (n=73, 14%), the last age group was 45 years and above (n=33, 6%). Statistical analysis of the data reveals most of the participant were highly educated 411 (82.2%), then high school ones were 63 (12.6%), on the other hand, only 16 (3.2%) attend secondary school, and 9 of them finished primary school (1.8%), few were illiterate 0.2% (Table1)

**Table-1: Demographic profile of participants**

| AGE (years) | Percent | Frequency (500) | EDUCATION LEVEL | Percent | Frequency (500) |
|-------------|---------|-----------------|-----------------|---------|-----------------|
| 15 - 24     | 14 %    | 73              | Illiterate      | 0.2%    | 1               |
| 25 - 34     | 47%     | 235             | Primary         | 1.8%    | 9               |
| 35 - 44     | 31 %    | 159             | Secondary       | 3.2%    | 16              |
| 45 - 55     | 6 %     | 33              | High            | 12.6%   | 63              |
|             |         |                 | university      | 82.2%   | 411             |

Our study shows 389(77.8%) out of 500 of the sample were using contraceptive pills and 111(22%) were not. The knowledge for contraception was 465(93%) were the majority know about it but only 35 represent (7%) were those who were not familiar with

any form of contraception. 276 (55.2%) think they have enough information about contraception. 138(27.6%) acquired information from social media, 153(30%) from a doctor and ,152(30%) acquired from relatives (Table 2)

**Table-2: Information, ever used contraception and sources of information among participants**

|   | NO         |                 | YES        |                 |
|---|------------|-----------------|------------|-----------------|
|   | Percentage | Frequency (500) | Percentage | Frequency (500) |
| Did You Use Before?                                 |            |                 |            |                 |
|   | 22.2%      | 111             | 77.8%      | 389             |
| Do You Know What Contraception is?                  |            |                 |            |                 |
|   | 7%         | 35              | 93%        | 465             |
| Your information about contraception, is it enough? |            |                 |            |                 |
|   | 44.8%      | 224             | 55.2%      | 276             |
| Your Information Acquired From?                     |            |                 |            |                 |
|   | No         |                 | Yes        |                 |
| Social Media  | 72.4%      | 362             | 27.6%      | 138             |
| Without Prescription                                | 88.6%      | 443             | 11.4%      | 57              |
| Doctor  | 69.4%      | 347             | 30.6%      | 153             |
| Relatives   | 69.6%      | 348             | 30.4%      | 152             |

By using Chi square in spss the results show us that there is no relationship between the age of participants and the knowledge of using contraceptive in pills at 0.337, in injection at 0.278, in condom at 0.463 in coitus at 0.764, in calendar at 0.751 in implant at 0.593, in surgical at 0.950 in breast feeding at 0.540, in IUD at 0.910 in hormonal at 0.353. There is no relationship between the education level of participants

and the knowledge of using contraceptive in pills at 0.493, in injection at 0.075, in implant at 0.403, in surgical at 0.637, in hormonal at 0.589. We found a significant relationship between the education level of participants and the knowledge of using condom at 0.002, in coitus at 0.028, in calendar at 0.030, in breast feeding at 0.020, in IUD at 0.003(Table 3)

**Table-3: Significance of education in respect to different methods of contraception**

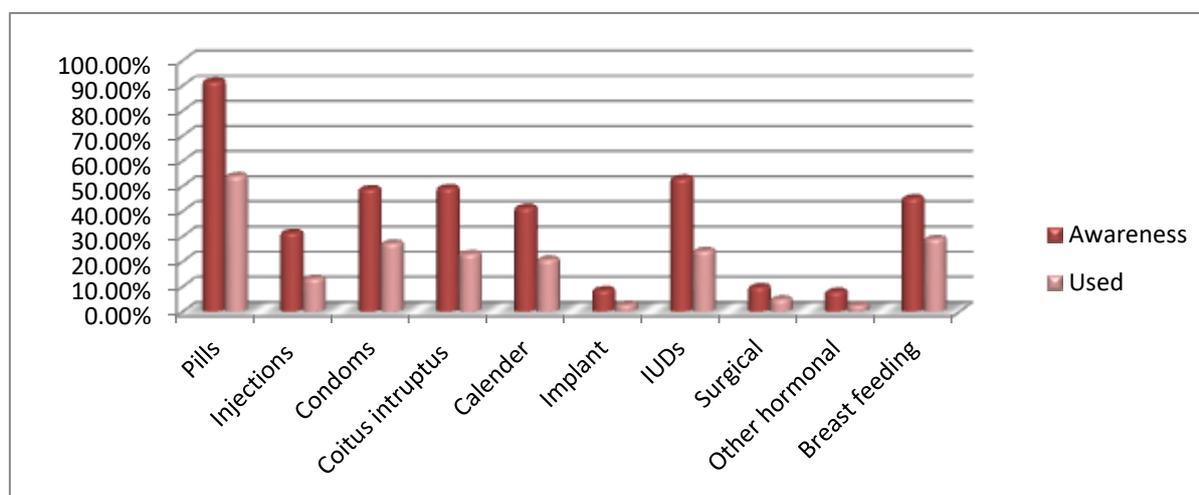
|                 | Pills | Injection | Condom | Coitus | Calendar | Implant | Surgical | Breast feeding | IUD   | Hormonal |
|-----------------|-------|-----------|--------|--------|----------|---------|----------|----------------|-------|----------|
| AGE             | 0.337 | 0.278     | 0.463  | 0.764  | 0.751    | 0.593   | 0.950    | 0.540          | 0.910 | 0.353    |
| Education Level | 0.493 | 0.075     | 0.002  | 0.028  | 0.030    | 0.403   | 0.637    | 0.020          | 0.003 | 0.589    |

This study also estimated the relation between the age of the female and her knowledge, the age group include (25-34) years of age, 221 ladies out of 235 ones have enough knowledge, on the other hand 14 only have poor information about the contraception. Followed by the age group varies from (35-44) years, 151 out of 159 which mean that majority of them know

about the contraception, and only 8 of them don't. Also 63 out of 73 were aged (15-24) and with good knowledge, but 10 ladies don't have much information. The last group participants were aged from (45-55) years, out of 33 only 3 of them haven't good knowledge; the rest of them 30 were know enough information. Table 4

**Table-4: Knowledge of contraception and education level among different age groups**

|                        | Age in years |           |           |           | Total |
|------------------------|--------------|-----------|-----------|-----------|-------|
|                        | 1 (15-24)    | 2 (25-34) | 3 (35-44) | 4 (45-55) |       |
| <b>Knowledge</b>       |              |           |           |           |       |
| YES                    | 63           | 221       | 151       | 30        | 465   |
| NO                     | 10           | 14        | 8         | 3         | 35    |
| Total                  | 73           | 235       | 159       | 33        | 500   |
| <b>Education Level</b> |              |           |           |           |       |
| Illiterate             | 0            | 0         | 1         | 0         | 1     |
| Primary                | 1            | 2         | 4         | 2         | 9     |
| Secondary              | 0            | 6         | 6         | 4         | 16    |
| High                   | 15           | 23        | 20        | 5         | 63    |
| university             | 57           | 204       | 128       | 22        | 411   |
| Total                  | 73           | 235       | 159       | 33        | 500   |



**Fig-1: Comparison between awareness and usage with respect to different methods**

## DISCUSSION

Contraception had been of great interest and need for Saudi women of reproductive age belonging to different socio demographic backgrounds. Contraceptive method choices show diversity with age, knowledge, education, and social status and knowledge providers.

Adequate child spacing, child care, improvement of maternal health and decrease in overall maternal and child morbidity are all Contraception benefits [7].

A strong relationship was found between the study participant's age and use of contraception. Most of the study population 47%, belonged to 25-34 years group (n=235). Followed by women between 35-44 years, 31.8% (n=195), and then the group ranges between 15-24 years 14.6% (n=73). 45-55 years group were the least respondents 6.6% (n=33). Young reproductive age women comprised the largest group of respondents as most of the women interviewed were university students and teachers and women visiting at different hospitals.

University level educated women were found to have maximum awareness regarding contraception. In a study in Qatar revealed that knowledge of family planning was associated with educational level and it increases with increasing level of education. Women with secondary and higher education were more likely to know about family planning compared to women with lower education levels [8]. In a study at Al-Madinah almost one third of women described care of children as the main motive for spacing (32.3%), then (30.1%) who described health of the mother, and (8.4%) used it as they were trying to delay their pregnancies due their studies[9].

In a study in Taif showed (55.2%) was age group between 30- 40 the majority of the sample [10]. Young reproductive age women the main target for adequate family planning. In Qatar showed that women under 25 years of age were more likely to lack knowledge of family planning (28.3%) compared to (14.7%) in the same age group who know[8].

In a study conducted in Qassim 2015 showed that use of contraception increases with increasing age of the mother [11]. Similar finding was observed in Farheen's study where maximum use (46.39%) was found in females between 30-39 years [12]. A Jordanian study of 2001 revealed that the percentage of use was increasing with increasing age in women aged less than 40 years [13].

Data analysis revealed that most of the participants (82.2%) were highly educated, then high school ones were (12.6%). On the other hand, only (3.2%) attend secondary school, (1.8%) of them

finished primary school and, few were illiterate. This observation shows a linear relationship of contraceptive awareness with education. Other studies conducted in near regions also reported the finding of significant correlation of contraceptive knowledge and use with participant's education level and working status [14] being least among uneducated participants [9]. 77.8% of the respondents used contraception in different forms ever in their life. There was wide variation in the reported use of contraception in Saudi Arabian women. It was 44.8% in Al Qassim region [14] and only 23.8% In Abha [12]. Use of contraception in various forms is also dependent on the education level. Those who are well qualified are observed to practice more [in Qassim 2015] and illiterate women were the least likely to practice any contraceptive method [15]. The women with university or college education were the majority who was currently using it [11].

More than half of the women interviewed (55.2%) were those who feel they need more knowledge and information regarding this issue. This percentage was higher in other regions like 63.7% Al-Medinah in 2016 [16]. In a study in Riyadh in 2016 revealed that (80.07%) of the women showed concern for having more knowledge and education [17].

In our study 93% of the women's response was positive regarding the general knowledge and awareness of contraceptive. Other studies showed comparable results. This percentage was 27.1% in Alsheeha [14] AL Qassim Region, 63.3% in Al-Kobar in 2012 [18]. In a study in Delhi in 2008 found that majority of youth had heard of contraceptive were (89%) [19]. other study in rural southern Nigeria revealed a higher value of awareness of contraceptive (92.2%) due to higher education level [20]. 77.5% were aware of contraceptive options in Pakistan [4]. Participants with lowest levels of education had the least proportion of positive attitude toward contraceptive, while university educated women had the highest proportion of positive attitudes toward different contraceptive choices in Al-Madinah [9].

Oral contraceptive pills were found to be most popular method to delay pregnancies among reproductive aged women of Hail region (91.6%) followed by Intrauterine device (53%), and (49.2%) were aware of coitus interruptus. A study in neighboring region Qassim in 2015 showed the knowledge about contraceptive pills was (39.01%), followed by (13.6%) for intra uterine device, and (13.2%) of condoms [11]. Nigerian study showed condom (60.3%), pills (49.9%) and injectable (38.2%) in popularity [20].

Doctors are the main personnel providing information regarding different contraceptives (30.6%), followed by group who get this advice/awareness from their family or relative by sharing different experiences

(30.4%). 27.6% took their information from media such as TV, web search or in social applications that are popular these days. These findings are similar to the studies performed in different regions of the country but differ from other countries [Al Madinah [9] where physicians and media contributes more in providing awareness about contraception. In a study in Ghana 2016 showed the first important source for information of contraception was hospitals and clinics (64.6%), the second was peers and friends (24.2%) [21]. It stressed the need of health personnel to be involved more for the provision of such information. Studies performed in south Asian countries (in India and Pakistan) found the media as the major (65%) source of information [4, 19]. Al Qassim 2010 study showed that the main source of

knowledge of contraceptive was family members (32.9%), and then TV (26.3%) and health workers efforts contributed less [14]. Source of information of contraceptive in Nigerian study showed doctor 36.9% and radio 33.8% [20].

This study shows that preferable type of contraceptive to practice was pills (54%), then breast feeding (29%) followed by condom (27.2%). Table 5 shows the comparison of different contraceptives used in this country and abroad. The findings are alike in local studies but are at odds with international studies. So oral contraceptives are most widely used methods all over KSA as it is considered effective and easily available [22].

**Table-5: Comparison of different contraceptives according to their use in particular studies**

| Studies        | Pills | Condoms | IUD   |
|----------------|-------|---------|-------|
| This study     | 54%   | 27%     | 24.2% |
| Qassim 2015 Al | 49.1% | 17.1%   | 16%   |
| Abha 2013      | 69.2% |         | 37.1% |
| Canada 2009    | 43.7% | 54.3%   |       |

## CONCLUSION

Study demonstrated that the education level of the women determine their acquaintance towards contraception. Relatives, doctors and media are the most effective tools that can provide information. Public health organizations should initiate their focus on raising awareness in both partners; facilitate the access toward the variety of the contraceptive options. Pills are the most famous form but there is a great need to promote other methods as well so that women can find more options for their contraceptive wishes.

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