



## Evaluation of Women's knowledge about Family Planning Methods at Omer Sawi Teaching Hospital

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### ABSTRACT

**Objective(s):** This study aimed at evaluating women's knowledge about family planning (FP) methods.

**Methodology:** Descriptive correlational hospital-based research was conducted at Omer Sawi Teaching Hospital, from August to September 2019. A random sample of (320) woman was recruited post their agreement. Data were collected by interview questionnaire and analyzed using a statistical package for social sciences (SPSS) which included the use of descriptive and inferential statistical methods with accepted  $P < 0.05$  for the significant correlation.

**Results:** The research findings revealed that the age group between (21-25) year represented (53.1%), most common education level was secondary school (56%). Most of women had (2-5) children. Half of the women had delivered their children with space of less than one year. Knowledge of women about FP was (58.5%). Although, 224(70%) had past experience of FP use, however, over one third 80(35.7%) stopped it because of different reasons, mainly the side effect. Currently, (45%) of the participant used FP, mainly hormonal methods 204(63.74%). Significant correlation was found between women's knowledge about FP and their educational level ( $r = 0.768$ ,  $P = 0.000$ ).

**Conclusions:** Women's knowledge of FP was poor and women focused on the use of hormonal methods. Significant correlation was found between women's knowledge about FP and their educational level.

**Recommendations:** Empowerment of women concerning family planning should be intensified to insure its sustainability over the time.

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## تقويم معارف النساء حول وسائل تنظيم الأسرة في مستشفى عمر ساوي التعليمي

### المستخلص

**الأهداف:** يهدف البحث إلى تقويم معارف النساء حول طرائق تنظيم الأسرة. **المنهجية:** أجري بحث وصفي إرتباطي يعتمد على المستشفى في مستشفى عمر ساوي التعليمي من أغسطس إلى سبتمبر 2019. تم اختيار عينة عشوائية من (320) امرأة بعد الحصول على موافقتهم للمشاركة في البحث. جمعت البيانات بواسطة إستبانة مقابلة وتحليلها بإستخدام الحقيبة الإحصائية للعلوم الإجتماعية (SPSS) المتضمنة للإحصاء الوصفي والإستدلالي المناسب مع قبول قيمة ( $P < 0.05$ ) لمعامل الإرتباط ذات الدلالة العالية.

**النتائج:** أظهرت نتائج البحث بأن الفئة العمرية (21-25) سنة تمثل (53.1%) منهن. التعليم الأكثر شيوعاً مثل أصحاب المرحلة الثانوية (56%). معظم النساء لديهن (2-5) طفل. نصف النساء ولدن أطفالهن بتباعد أقل من سنة واحدة. (58%) من النساء كانت لديهن معرفة بتنظيم الأسرة. بالرغم من أن 224 (70%) استخدموا تنظيم الأسرة في حياتهم سابقاً، إلا أن أكثر من ثلثهن 80 (35.7%) أوقفوه لأسباب أهمها الآثار الجانبية. حالياً 45% من المشاركات استخدمن تنظيم الأسرة وكان الاستخدام السائد هو للطرق الهرمونية، 204 (63.74%). يوجد إرتباط ذات دلالة عالية بين معارف النساء حول تنظيم الأسرة ومستواهن التعليمي ( $r = 0.768$ ) ( $P = 0.000$ ).

**الإستنتاجات:** إستنتج البحث بأن معارف النساء وإستخدامهن لطرق تنظيم الأسرة كانت ضعيفة، وركزت النساء على إستخدام الأساليب الهرمونية ووجد إرتباط بين مفهوم النساء لطرق التنظيم ومستواهن التعليمي. **التوصيات:** ينبغي تمكين النساء فيما يتعلق بتنظيم الأسرة لضمان إستدامته على مر الزمن. **الكلمات المفتاحية:** معارف النساء، طرائق تنظيم الأسرة

### Introduction

Family Planning (FP) is the use of a range of methods of fertility regulation to help individual or couples attain certain goals; it allows women to find out the desired number of children and the spacing of their pregnancies, FP includes contraceptives barrier, hormonal birth control, sexuality education and natural FP techniques. It can also include surgery and intrauterine devices<sup>(1)</sup>.

FP leads to better health for mothers, children and the whole family. Women who understand the benefits of family planning can space pregnancies at least (2) years apart to have time to care for the new baby and recover from childbirth<sup>(2)</sup>.

But FP is neglected by individuals. And it is a field for a broader social and political conflict involving religion and culture. Throughout history, human beings

have been directed at enhancing social welfare, by many methods such as prolonged breast-feeding to space birth. Women and children in countries like Sudan and throughout Africa are the most vulnerable population groups with the greatest need for high-quality nutrition. Frequent and many pregnancies are likely to lead to maternal death from hemorrhage, toxemia, or septicemia<sup>(3)</sup>.

There are many causes that make women not use contraceptives, such as logistical problems, scientific and religious concerns, lack of transportation in order to access health clinics, lack of education and knowledge and reluctance by partners, families or communities, plus the fact that no one can control their fertility beyond basic behavior involving conception<sup>(3)</sup>. No contraception has proved perfect and effectiveness, safety and techniques vary, therefore it

requires counseling, screening of the couple and offering the best method suited to the couple. It also requires monitoring while the woman uses any contraception <sup>(4)</sup>.

Copper T IUCD inserted within (5) days of sexual intercourse can prevent implantation of a fertilized ovum. Advantages of Copper T is used as emergency contraception. It is cheap, the failure rate is very low, (0.71%) <sup>(5)</sup>.

**Problem Statement and justifications:** Studies reveal that most women at reproductive age, have little or incorrect information about FP even when they know some names of contraceptives, they don't know where to get them or how to use it <sup>(6)</sup>.

Little is known about knowledge of FP methods among women in Sudan. Maternal mortality rate (MMR) in many developing countries, including Sudan, remains at high levels despite improvements in obstetric hospitals <sup>(2)</sup>.

Babies of young mothers are at greater risk than those whose mothers are older. Contraception can positively influence the health and well-being of children, so spacing between pregnancies has a great impact on women's health and outcome of each pregnancy <sup>(7)</sup>.

Lack of spacing has significant health effects on mothers and children. Low birth weight, premature birth and small for gestational age are among its consequences for babies and women; are more likely to suffer from third trimester bleeding, premature rupture of membrane and anemia. Good knowledge about FP helps women make informed choices about their reproductive health <sup>(8)</sup>.

Many adolescent girls who become pregnant have to leave school <sup>(9)</sup>. This has long-term implications for them as individuals, their families and communities <sup>(2)</sup>. In Sudan, FP services

started in 1965 and in 1985 integrated into the primary health care system, but utilization rates are among the lowest in the world. These low rates may have been inaccessibility of the services in a community that is large and of such diverse cultural backgrounds. A lot of factors affect the unmet need for FP, besides social and traditional practices and their implications for FP in the communities <sup>(10)</sup>.

The current study aims to evaluate the knowledge of the women regarding FP methods and to find out the correlation between women's knowledge of the FP and their socio-demographic data.

### **Methodology**

A descriptive correlational hospital-based research was conducted at Omer Sawi Teaching Hospital in Khartoum locality. Mothers of reproductive age, were selected randomly for the study.

Agreement was taken from Omer Sawi Teaching Hospital manager. The aim of the study was illustrated to the all participants and agreements were taken from them. With ethical approval ID: 2019/NS/B4/7.

The sample size comprised (322) mothers who were attending at Omer Sawi during the period of study from august to September 2019. Women were chosen according to their arrival order at Omer Sawi Teaching Hospital obstetric and gynecologic department. The starting point chosen randomly. The required data for fulfilling the study objectives were collected by structure questionnaire designed for the study and used for two purposes as follows.

First: women demographic data: Characteristic data of study sample, such as age and gender.

Second: Knowledge about FP by women. It includes questions about the FP and the definition it, and its effect on life of the family, and women experience and usage of FP, types of FP methods used by women and reasons for not practicing spacing.

Content validity of the questionnaire was determined through panel of experts in the field.

Data were collected through interviewing the women.

Data were analyzed by Statistical Package for Social Sciences software (SPSS), and suitable statistics methods were used. Descriptive data analysis (Frequencies and Percentage) and Inferential Data Analysis for Correlation coefficient between variables and P-value ( $< 0.05$ ) is accepted for statistically significant.

For this study, knowledge was classified as given below based on percentage of scores obtained as ( $< 60\%$ ) for poor knowledge, ( $60\%$  to  $80\%$ ) for fair knowledge and ( $> 80\%$ ) for good knowledge

## Results

**Table (1): Women Socio-demographic Data (N= 320)**

| Socio-demographic Data      |                  | Frequency | Percent |
|-----------------------------|------------------|-----------|---------|
| <b>Age</b>                  | 15-20 years      | 26        | 8.1     |
|                             | 21-25 years      | 170       | 53.1    |
|                             | 26-30 years      | 70        | 29.9    |
|                             | 31-35 years      | 22        | 6.9     |
|                             | >35years         | 32        | 10      |
| <b>Level of Education</b>   | Illiterate       | 12        | 3.8     |
|                             | Primary School   | 98        | 30.6    |
|                             | Secondary School | 180       | 56      |
|                             | University       | 30        | 9.3     |
| <b>Occupation</b>           | Housewives       | 160       | 50      |
|                             | Teacher          | 29        | 9.1     |
|                             | Free work        | 120       | 37.5    |
|                             | Employees        | 11        | 3.4     |
| <b>Socioeconomic Status</b> | Sufficient       | 160       | 50      |
|                             | Insufficient     | 160       | 50      |

Results, out of this table, show that highest percentage 170 (53.1%) of mothers had ages between (21- 25) years. Most of the participants were secondary school graduates 180 (56%). Half of the women 160 (50%) were housewives. Regarding to their socioeconomic status, 160 (50%) of the participants tell that their socioeconomic status was sufficient, and the remaining half 160(50 %) had insufficient ones.

**Table (2): Obstetrics and Gynecological History of the Participants (N= 320)**

| Items                          |                        | Frequency | Percent |
|--------------------------------|------------------------|-----------|---------|
| Marital age                    | 15-20 years            | 96        | 30      |
|                                | 21-25 years            | 140       | 43.8    |
|                                | 26-30 years            | 50        | 15.6    |
|                                | 31-35 years            | 22        | 6.9     |
|                                | >35years               | 12        | 3.7     |
| Number of pregnancy            | One                    | 0         | 0       |
|                                | 2-5                    | 300       | 93.8    |
|                                | 6-10                   | 20        | 6.2     |
|                                | >10                    | 0         | 0       |
| Number of Abortion             | One                    | 50        | 32.5    |
|                                | 2-5                    | 99        | 64.3    |
|                                | 6-10                   | 5         | 3.2     |
|                                | >10                    | 0         | 0       |
| Age of Menarche                | 10-15years             | 280       | 87.5    |
|                                | 16-20 years            | 40        | 12.5    |
| Frequency of Menstruation      | Regular                | 250       | 78.1    |
|                                | Irregular              | 70        | 21.9    |
| Space between children         | < 1 year               | 160       | 50      |
|                                | 1 to less than 2 years | 150       | 46.9    |
|                                | 2 year and more        | 10        | 3.1     |
| Discussion of FP with partners | Discussed              | 279       | 87.2    |
|                                | Not discussed          | 41        | 12.8    |

Results, out of this table, indicate that age of women at marriage less than (20) years represented 96 (30%) and age group of 21-25 was the most common 140 (43.8%) mothers age at marriage. Women had (2–5) number of pregnancy were 300 (93.8%). All mothers had experienced abortion in their live, but those had abortion between (2-5) were 99 (64.3%), and half of women 160 (50%) had space between children < 1 year and 41 (12.8%) of women had not discussed FP methods with their partners.

**Table (3): Women's Source of Information about FP Methods (N= 320)**

| Source of Information             | Frequency | Percent |
|-----------------------------------|-----------|---------|
| Advertisement                     | 66        | 20.6    |
| Family                            | 58        | 18.1    |
| Course education                  | 41        | 12.8    |
| The family planning professionals | 90        | 28.2    |
| School                            | 24        | 7.5     |

Results, out of this table, present that the common source of information about birth control among women was FP professionals as reported by 90 (28.2%) of women.

**Table (4): Women ' Knowledge about Family Planning Methods (N=320)**

| Items  | Frequency | Percent | Evaluation |
|--|-----------|---------|------------|
| Definition of birth control  | 195       | 60.9    | Fair       |
| Methods of FP known  | 246       | 76.9    | Fair       |
| Importance of FP   | 158       | 49.4    | Poor       |
| Side effects of hormonal contraceptive                                     | 159       | 49.9    | Poor       |
| Implant Contraceptive  | 259       | 80.9    | Good       |
| Women age and its effect on determining the suitable type of contraceptive | 160       | 50      | Poor       |
| Inject-able contraceptive duration according to its type                   | 160       | 50      | Poor       |
| Condom protection against sexually transmitted diseases (STDs)             | 160       | 50      | Poor       |
| Average  | 190       | 58.5    | Poor       |

Score for evaluation was based on percentage of women's knowledge; (< 60%) poor. (60% to 80%) Fair and (> 80%) Good. This table showed that the overall women's knowledge about FP was poor (58.5%).

**Table (5): Women's Knowledge about Usage of Family Planning Methods=224)**

| Items  | Frequency | Percent |
|--|-----------|---------|
| <b>Women who used contraceptives were 224/320 =70% of the participants</b> |           |         |
| <b>Reason for Using Birth Control</b>                                      |           |         |
| To give space between children   | 160       | 71.4    |
| To prevent unwanted pregnancies  | 160       | 71.4    |
| To prevent sexually transmitted diseases (STDs)                            | 0         | 0       |
| To improve economic status   | 2         | 0.9     |
| It is recommended for health   | 30        | 13.4    |
| To improve mother and child health   | 120       | 53.6    |
| <b>Methods of Contraceptive Used by Women</b>                              |           |         |
| Barrier method   | 6         | 2.7     |
| Hormonal method  | 204       | 91.0    |
| Surgical Method  | 04        | 1.8     |
| Natural Method   | 10        | 4.5     |
| <b>Factors that Support the Usage of FP among Women</b>                    |           |         |
| Offers/free  | 5         | 2.2     |
| Low cost   | 190       | 84.8    |
| Accessibly of family planning services                                     | 76        | 33.9    |
| Advertising  | 22        | 9.8     |
| Information about benefits   | 46        | 20.5    |
| Information about side effects   | 58        | 25.9    |
| Desire to have no more children  | 80        | 35.7    |
| Option of husband  | 26        | 11.6    |
| <b>Reason for Stopping Contraceptive by 80 (35.7%) of the Participants</b> |           |         |
| want to have children  | 10        | 12.5    |
| Fear of side effects   | 25        | 31.3    |
| Unintended pregnancy (failure of the method)                               | 20        | 25.0    |
| Absent of husband (husband away)   | 20        | 25.0    |
| Health concerns  | 5         | 6.3     |

The common reasons for using birth control were to give Space and to prevent unwanted pregnancies reported by 160 (71.4%) of women. Most common method of contraceptive used was hormonal method used by 204 (91.0%) of users. The common reason for stopping contraceptive was fear of side effects which was reported by 25 (31.3%) of them.

**Table (6): Correlation between Women's Knowledge about Family Planning Methods and Their Level of Education and Age Groups (N=320)**

| Education        | Women's Knowledge |      |      | P-Value |
|------------------|-------------------|------|------|---------|
|                  | Poor              | Fair | Good |         |
| Illiterate       | 12                | 0    | 0    | 0.000   |
| Primary School   | 82                | 4    | 12   |         |
| Secondary School | 35                | 30   | 115  |         |

Correlation was significant between women's knowledge and their education levels at  $P = 0.000$ .

## Discussion

Family planning makes it possible for couples, particularly mothers, to plan for their future families. In this study demographic characteristics found that 170 (53.1%) of the mothers their age group between (21-25) years, education level of 180 (56%) of them were secondary school, this result is not similar to the result of the study that found (26.8%) of the participants fell into the age category. between (25-29) years, and higher level of education found among (60.9%) of the respondents<sup>(11)</sup>.

Half of the participants (50%) their occupation was housewives, which was in agreement with the study that found (75.8%) of the women were housewives<sup>(12)</sup>.

Half of the participants (50%) had insufficient economic status, which may affect the usage of contraception. According to the result, 99 (64.3%) of the participants revealed that they had experienced abortions from two to five times in their lives. Which may be due to short space between pregnancies as 160

(50%) of mothers had space between children < 1 year.

Knowledge of the women about FP in this study was 58.5%, however (76.9%) knew at least one method of FP. This result consistent with previous studies in Sudan that illustrate the awareness of contraceptive was (87 %) <sup>(10)</sup> and, (82.6%) of pregnant women were aware of FP in the other study<sup>[13]</sup>. In other study found that (78.5%) of the respondents heard about contraceptives (86.5 %) were aware of family planning methods <sup>(12)</sup>. This means knowledge about FP among women available and reassuring in the different societies and over the time.

In this research, FP methods used by (45%) of the participants which was better than what mention by previous study in Sudan in primary health center in Khartoum State which was (40%) <sup>(10)</sup>.

That means good progress and improvement in the usage of FP by the women in Sudan and the usage has increased over a period. Likewise, in the other research, that found only (36.03%) use FP. It may be due to the lack of knowledge regarding the concept of the methods of FP. In the other study found

that; half of the participants lack knowledge <sup>(11)</sup>. Although knowledge of women about FP in all previous studies was favorable, but it does not affect their utilization, this may be because of barriers that may influence using contraceptive as religious beliefs and fear of FP adverse effects, their wishes of having many children and misconception.

The most common type of FP methods used by the mothers in this study was hormonal methods (63.74%) which goes in line with the previous study that found contraceptive pills was the most frequently used method (49.5%) <sup>(1)</sup>.

In the current research, 80 (35.7%) of the respondents stopped the use of contraceptive methods in the past for different reasons, mainly fear of side effects (31.3%), failure of the method used and desire to have a child 25% for each. Which agreed with the study that found the most common reason for the refusal of contraceptive use later was the desire to have a child (44.59%) <sup>(12)</sup>.

This research found that husband's role among the weakest support factors for usage of FP among women only (11.6%) which was consistent with the study that found the main cause to not using the contraceptive was husband's refusal <sup>(6)</sup>. and in the other study they found the cause behind the spousal refusal, were lack of knowledge, and fear of adverse effects <sup>[15]</sup> But totally different from the study conducted in Rowanda that found husband's approval (74.9%) were major influence of participants use of contraceptives <sup>(16)</sup>.

In the current research, education correlated with knowledge score, as education increase awareness of contraception also increases, same as in the study conducted and found an association between the education and awareness of the participants <sup>(17)</sup>.

Respondents had information of FP from different sources, the most common source was FP professional 90 (28.2%) , this is less than the result of study done in Indonesia which found the source of information of health workers was 188 (63.3%) <sup>(12)</sup>. Women gaining the information about FP from non-health professionals may guide them to miss practice and miss conception, which may affect negatively on their health outcome.

In the recent research, (37.8%) of respondents were aware of emergency pills, which was more than the awareness of emergency pills by the respondents in the other studies (12%) and (22.9%) respectively <sup>(11-18)</sup>.

This research revealed that 10 (4.5%) of women used natural methods of FP, which was less than the result of study done in Nigeria which revealed that a high number of respondents 199 (36%) used traditional (natural) FP methods <sup>(19)</sup>.

### **Conclusion**

Women's knowledge about FP methods was poor. Hormonal FP methods were used more than other methods. Education level was positively correlated with women's knowledge about FP.

### **Recommendations**

Health education about the effect of FP on health, alongside with empowerment of women, should be intensified and. Further studies should be conducted to achieve more detailed results concerning family planning and its sustainability among women over the time.

### **Conflict of Interest**

None.

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