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## Evaluate Use and Barriers to Accessing Family Planning Services among Reproductive Age Women in the White Nile, Rural Districts, Sudan

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#### **Abstract**

**Introduction:** Now a day and due to increased use of family planning methods, the fertility rate becomes decreased. The use of family planning will assist individuals and couples to maintain certain objectives like to avoid unwanted pregnancy and births.

**Objective:** The objectives to conduct this survey are to identify the level of utilization of modern planning services. As well as, determine factors associated with utilization of modern family planning services among Married women of reproductive age (in While Nile – Sudan).

**Method**: A community based cross-sectional study design was conducted among married women of reproductive. The data were collected from 200 study subjects by face to face interview technique by using a structured questionnaire. Multivariate analyses were done to check the association between dependent variables and each independent variable. The level of statistical significance was identified.

Result: That most (43.0%) of respondents belonged to the age category of 30 to 39. Moreover, about two thirds (67.0%) of respondents had a primary level of education. Also, almost half (43.5%) of the respondents were Housewife. Contraceptive method reported to be used was Oral Contraceptives Pills (OCPs) (75.5%), followed by Prolonged Breast feeding, which is not wean their children for at least 2 years and is believed to provide contraception (10.0%), while the least 2 reported types were Condom (1.5%) and skin patch (1.0%). Users of contraceptive methods (57.7%) reported that inadequate financial support as one factor that hinder the use of modern contraceptive methods followed by a refusal by husband 25.0%. As for non-users 35.0% reported that religious beliefs will hinder their use of contraceptive methods. There was a significant association between

availability, religious beliefs and refusals by husband and contraceptive methods use (p<0.001).

**Conclusion**: This study appointed that modern family planning methods are high in White NIe and the key significant associated factors of modern family planning utilization and use were found. The prominent barriers detected among user are none finical support and among non-user is religious factor.

Keywords: Family planning; Barriers; Reproductive age

## Introduction

The Uncontrolled population increase is a burden on the resources of many developing countries. A high fertility rate, high maternal and infant mortality rate and low life expectancy is a feature of 75% of world population live in developing countries. Now a day and due to increased use of family planning methods, the fertility rate becomes decreased [1].

Family planning should be accessible and available to every woman needs it. Certainly, the use of family planning will assist individuals and couples to maintain certain objectives like to avoid unwanted pregnancy and births. Therefore, everyone should be able to freely and responsibly decide how many children to have and when to deliver those [2].

Family planning services are important to save maternal health and reduce maternal mortality rate. Provision of adequate antenatal care, ensuring skilled attendance at birth, backed by emergency obstetric care when needed is essentials to reduce maternal and neonatal mortality in addition, to voluntary access to voluntary family planning to space births [3].

Sudan in 1965 introduced Family planning services in terms of the foundation of the Sudan Family Planning Association, which provides services for all country beneficiaries women in their reproductive age. So, Caldwell and Caldwell focused on the cultural imperatives of African communities that are essential to attaining high levels of fertility [4].

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We need scientific documentation for lower levels of utilization to know unmet need for family planning [5]. Having many children is a common practice in most developing countries like Sudan; therefore it is necessary to increase the use of modern Family planning (FP) service.

Contribution in fertility control, in addition to improves the socioeconomic development of the local community and the population as a whole [6].

High availability of variety of contraceptive methods, high level of use of permanent and long-term contraceptive methods, providers' suggestion of method choice, partner participation in the choice of a contraceptive method, education level. All are considered factors influence the high prevalence rate in developed countries [7].

A creation of awareness and knowledge are important factors to change the negative attitude of the users. A recent cross-sectional study done by Khan et-al. in Barely India in 2012 stated that lack of awareness was the crucial factor makes the married women not using modern family planning, contraceptives [8].

On the other hand, in order to use modern family planning methods the mother or husband should be equipped with full information about varying methods of contraceptive for appropriate selection and utilization of family planning services [9].

The objectives to conduct this survey are to identify the level of utilization of modern planning services. As well as, determine factors associated with utilization of modern family planning services among reproductive age women in this rural district region.

#### **Methods**

A community based cross-sectional study design was conducted among married women of reproductive in the White Nile district, Sudan. Study population composed of 200 married women in of reproductive age. The sample was selected by randomized sampling technique.

The sample size (n) was calculated using the following formula:  $n = z\alpha$ 

2p (100-p) / ε2 [10]

Where,

Z=the standard normal deviate that corresponds to some significance level,  $\alpha$  ( $\alpha$ =0. 05, then z=1.96).

P=the estimated prevalence of use of contraceptive methods (this was put at 12%, according to survey, 2015.

 $\varepsilon$ =the margin of error on p (put at 5%).

 $N=1.962 \times 0.15 (1-0.15) /0.052$ 

= 200

Since the study sample was obtained through multi-stage cluster random sampling, it was adjusted to control for the design effect. Clustering need a much larger sample size [11].

Informed consent was obtained from study participants and the local administrative authority, face to face verbal interview was conducted by using structured standardize questionnaire, which was developed to cover the research objective. Confidentiality was maintained during data collection and data management. Using SPSS version 20.0 for statistical analysis, which is done using frequencies and percentages. In addition, Multivariate analyses were done to check the association between dependent variables and each independent variable. The level of statistical significance was identified at a P value of ≤0.05 and ≤0.01.

#### Results

The most (43.0%) of respondents belonged to the age category of 30 to 39 years. Moreover, about two thirds (67.0%) of respondents had a primary level education. Also, almost half (43.5%) of the respondents were housewife (**Table 1**).

**Table 1** Socio-demographic characteristics of the respondents (N=200).

Socio-demographic characteristics	Number	Total (%)
Age category	'	
19	9	-4.5
20 – 29	74	-37
30 – 39	31	-15.5
>40	86	-43
Total	200	
Educational status		
Primary	34	-17
Higher secondary	146	-73
University/Post Graduate	20	-10
Total	200	
Occupation		
Governmental employee	23	-11.5
Private employee	28	-14
Daily wage earner	4	-2
Housewife	145	-72.5
Total	200	

The most common contraceptive method reported to be used was Oral Contraceptive Pills (OCPs) (About 75.5%), followed by Prolonged Breast feeding, which is not wean their children for at least 2 years and is believed to provide contraception (10.0%), while the least 2 reported types were Condom (1.5%) and skin patch (1.0%) (Table 2).

There was no significant association between age and contraceptive method use among women in stable marital relations (p=0.76).

Table 2 Types of contraceptive methods being used (N=200).

Type of contraceptive methods	Numbe r	Percentage (%)
Condom	3	1.5
Oral Contraceptive Pills	151	75.5
Copper T (IUCD)	6	3
Injectable device	15	7.5
Prolonged Breast feeding	20	10
Calendar		1.5
Skin patch	2	1

Use of modern contraceptive methods is high among University/Post Graduate (39.0) followed by those who have higher secondary education (35.0%) then, primary level (32.0%). There is a significant association between modern contraceptive methods use and level of education; in particular, contraceptives methods use higher with increasing levels of education (p=0.02).

Governmental employee is the largest group of users of contraceptive methods (31.5%) followed by unemployed (24.0%). There is a significant relationship between study participant occupation and contraceptive methods use (p<0.001) (Table 3).

**Table 3** Socio-demographic factors associated with the use of contraceptive methods.

Characteri stics	Use of Modern Contraceptive Method		Total (%)	P value
	Yes (%)	No (%)		
Age	<u>'</u>			,
19	39 (19.5)	1 (0.5)	9 (4.5)	
20 – 29	42 (21.0)	3 (1.5)	74 (37.0)	
30 – 39	68 (34.0)	2 (1.0)	31 (15.5)	0.76
>40	31 (15.5)	14 (7.0)	86 (43.0)	
Total	180	20	100	
Educational	Status	,		,
Primary	32 (16.0)	13 (6.5)	34(17.0)	
Higher secondary	70 (35.0)	5 (2.5)	146 (73.0)	
University/ Post Graduate	78 (39.0)	2(1.0)	20(10.0)	0.02

Total	180	20	200				
Occupation	Occupation						
Governmen tal employee	63 (31.5)	8 (4.0)	23 (11.5)				
Private employee	29 (14.5)	1 (0.5)	28 (14.0)				
A daily wage earner	40 (20.0)	5 (2.5)	4 (2.0)	< 0.001			
Housewife	48 (24.0)	6 (3.0)	145 (72.5)				
Total	180	20	200				

Most users of modern contraceptive methods got information from health centers (44.0%). There is a significant association between source information and the use of contraceptive methods (P<0.001) (Table 4).

**Table 4** Source of information on contraceptive methods.

Source of Informatio n	Use of Modern Contraceptive		Total (%)	P value
	Yes	No		
Media	79 (39.5)	6 (3.0)	40 (20.0)	0.00
Peers	10 (5.0)	10 (5.0)	33 (16.5)	0.00 2
Health centers	88 (44.0)	4 (2.0)	120 (60.0)	0.00 2
Seminar	3 (1.5)	0 (0)	7 (3.5)	0.00 2
Total	180	20	200	

Users of contraceptive methods (57.7%) reported that inadequate financial support as one factor that hinder the use of modern contraceptive methods followed by a refusal by husband 25.0%. As for non-users 35.0% reported that religious beliefs will hinder their use of contraceptive methods. There was a significant association between availability, religious beliefs and refusals by husband and contraceptive methods use (p<0.001) **(Table 5)**.

**Table 5** Additional factors that hinder the use of contraceptives (N=200).

Additional factors that hinder contraceptive use	Use of modern contraceptive method		Total (%)	P value
	Yes (%)	No (%)		
Refusal husband	46 (25.6)	4 (20.0)	50 (25.0)	
Religious beliefs	3 (1.7)	7 (35.0)	9 (4.5)	<0.00 1

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Non availability of	13 (7.2)	0 (0.0 )	13 (6.5)		
Contraceptive method	Contraceptive methods				
Inadequate financial support	104 (57.7)	6 (30.0)	110 (55.5)		
Others (distance)	14 (7.8)	3 (15.0)	17 (8.5)		
Total	180	20	200		

## **Discussion**

Sudan one of the developing countries targeting to achieve Millennium development goals (MDGs) to reduce maternal mortality rate among reproductive age women, through encouraging use modern FP service utilization [12].

The use of contraceptives has been identified as an important factor to reduce fertility rate for all women in reproductive age groups in developing countries [13]. There is a high level of using modern contraceptives methods with different types (90%) in contrast to the traditional method that depending on continue on breast feeding for at least 2 years. In contrast, with a study conducted by Jabeen et al. the common used methods were traditional, injectable and female sterilization which is different from the work of Seema et al. [1]. No significant association between age and use of family planning (p=0.76). The result consistent with study result conducted in Ethiopia among married women of reproductive age, found also, no significant relation between use of contraceptives and age of the participant. Also finding from the study in Kancheepuran, Tamil Nadu, India showed no significant association was observed between age and contraceptive Usage [14,15]. Although, high usage level among highest category age>40 (43.0) in different way there is a strong relation between level of education and use of modern contraceptives. Significantly relation seen between level of education and use of modern level of family planning (P<0.02).

The present study shows that higher number of the participant uses the Oral Contraceptive Pills (OCPs) as a method of modern contraceptive and the last method is Skin patch. This may relate to most of the participants know much about (OCPs) and availability of this method in their district, the finding similar to study finding among Saudi females [16]. Source of information on contraceptive methods was significantly associated with contraceptive user acceptance. Findings revealed that a high part of users in this study relied on information from health facilities or reproductive health clinics (44.0%). This result is statistically proven by the significant association (P<0.02). Along with, another result of study in Nigeria, limited the role of health provider in advising and give knowledge to the women about the best method to use. However, the media would still need to do much more work on continuous providing knowledge and awareness about contraception [17]. The most obvious factor among study participant, user non-user of contraceptive that hinders the use of contraceptive is inadequate financial support 104 (57.7), 6 (30.0) respectively.

But the obvious reason among non-user is indicated to religious beliefs 7 (35.9%). Our result is similar to the finding from a study A study performed in Nigeria in 2013 concludes that the major cause for the non-use of modern family planning was intending to have more children, 33 (31.46%) followed by pressure from the husband and religious factors respectively 21 (12.5%), 18 (10.9%) [18]. Also, its consistent to finding from study conducted in the same region and revealed that religious as key factor for barriers to utilization of family planning services [19]. However, all contraceptive method not completely free and the women should pay to attain their preferable contraceptive methods. The significant association clarifies this result (P<0.01).

## Conclusion

This study appointed that modern family planning methods are high in White NIe, and the key significant associated factors of modern family planning utilization and use were found. The prominent barriers detected among user are none finical support and among nonuser is religious factor.

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