

## Knowledge and Utilization of Contraception among Women Attending Antenatal Care Unit at Specialist Hospital Sokoto State, Nigeria.

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**Abstract:** Contraceptive utilization is a key component of the Sustainable Development Goal agenda and a major contributor to national health. In spite of the importance of contraceptive uptake among couples of reproductive age, meeting the reproductive health rights of women remains an issue due to multi-faceted obstacles within complex environments. The issues which impact women's reproductive health rights in relation to contraception relate to availability, accessibility, affordability, literacy, tradition, and culture. This study describe the knowledge and utilization of contraceptives among women accessing family planning services at a Specialist hospital, Sokoto-Nigeria. A cross sectional study was used. A structured questionnaire was used to elicit information from 352 respondents who were conveniently sampled at Specialist hospital, Sokoto-Nigeria. Data was analyzed using SPSS version 20.0 for the descriptive data to meet the study objectives. The result of the study indicated that out of the 352 respondents, 214 ( 60.8%) had low knowledge on contraceptives, 58(16.5%) had moderate level of knowledge and 80 (22.7%) had higher level of knowledge. Respondents who had ever used contraceptives were 274 (77.8%). Most respondents 273(77.6%) were currently using contraceptives while 56 (15.9%) indicated otherwise. Notably, 229 (65.1%) of the respondents were ready to use contraceptives in the future. The study concluded that, women in sokoto have low knowledge about contraceptives. established to address personal, economic and socio-cultural barriers to family planning services and women's right to family planning choices.

**Key Words:** Contraceptives, Birth Control, Women, Choices, Reproductive Health

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### I. Introduction

Family planning (FP) is the ability of spouses, partners or individuals to choose the number of children they desire and the time to have them<sup>1</sup> This can be achieved by the use of contraceptive methods which is one of the most cost-effective public health interventions pivotal in reducing a country's fertility rate<sup>1</sup> Family planning has also been found to promote gender equality as well as educational and economic empowerment for women<sup>2</sup> Despite the estimated 7.3 billion world population with projections up to 9.7 billion by 2050 and 11.2 billion by 2100 family planning remains an issue globally<sup>3</sup>. The United Nations Population Prospects data indicate that in India, the state of Uttar Pradesh's 183 million populations almost equals that of Brazil's 187 million<sup>3</sup>. Evidence from similar data also indicates that 89.1 and 91.49 percent of women of child bearing age have knowledge of almost all child spacing methods respectively but only 31% of the partners are using family planning methods of their choice<sup>4</sup> Although millions of women who are sexually active would prefer to avoid becoming pregnant, they do not use any method of contraception to avoid pregnancy<sup>5</sup>. Whilst the benefits of family planning services cannot be overemphasized, the utilization of the service still remains very low in Sub-Saharan Africa where marginal population increase remains concerning<sup>6</sup>.

Utilization of contraception depends on some factors. For instance, a study conducted in Pakistan established a relationship between the various methods of contraception and the economic status of individuals<sup>7</sup>. On the economic factors, clients from richer household were more likely to use long term family planning than those from a poor household. Women from poor household were most likely to use fewer contraceptives than women from rich families<sup>8</sup>.

In most African families, decision-making about family planning; contraception use and choice may not include (and when included, in a lesser percentage) the potential child-bearing mothers themselves. Males

play a dominant role in women's reproductive health decision making<sup>9</sup>. Hence this mayb affects the utilization. Statistics about the level of utilization of contraception is not yet established among women attending ANC clinic in sokoto. Therefore, this study aims at exploring utilization of contraceptive methods among women accessing family planning services at Sokoto Specialist Hospital in Nigeria.

## **II. Methods**

### **Research Design**

In this study, a cross-sectional design was used to elicit information from participants on the factors that influence women's knowledge and utilization of contraceptives at the Specialist Hospital in Sokoto.

### **Research Setting**

The research was conducted in the Sokoto state of Nigeria. Sokoto state, created in February 1976, is one of the thirty-six (36) states of the federation with its capital being Sokoto city. Sokoto state which is located in the northwest of Nigeria occupies about 32,000 sq/km with an estimated population of 5, 52,400 million. The state shares border with the Niger Republic in the north, and Kebbi state at the southwest, and Zamfara state in the east.

The Sokoto specialist hospital has a board of management which governs the hospital's affairs. It is headed by a Chief Medical Director, followed by the chairman of the Medical Advisory Committee and the Deputy Director of Nursing Services heading the Nursing Department. The hospital has a capacity of five hundred and twenty beds, with eight clinics.

### **Study Population**

The study population comprised of women of reproductive age who access the family planning clinic at the Specialist hospital for FP purposes.

### **Inclusion Criteria**

This study included women of reproductive age between 18-49 years who were accessing FP services at the Sokoto specialist hospital. Respondents were those who could speak Hausa, Fulani or English. These respondents voluntarily consented and participated in the study.

### **Exclusion Criteria**

Women above 49 years or below 18 years seeking health service at the Specialist hospital were excluded from the study. The reason for excluding the women outside these age bracket was related to biological influences on birthing. Clients who could not speak Hausa, Fulani or English, or were unwilling to participate in the study were also excluded from the study.

### **Sample Size and Sampling Technique**

Convenient sampling technique was used to recruit participants for the study. The sample population was drawn from the FP clinic of Sokoto Specialist Hospital. This sampling technique is appropriate when the population consists of various types of people but identify with a specified event or phenomenon (contraceptive) (Bowling, 2009) over a stipulated period of time. Ethical approval for this study (Appendix A), with an introductory letter from the School of Nursing and Midwifery, University of Ghana (Appendix B), and a written institutional approval was obtained from the Sokoto State Specialist Hospital (Appendix C) .

### **Determination of Sample Size**

According to the Sokoto Specialist hospital's medical record register (2016), an average of 3,000 women of reproductive age attend the facility yearly. The sample size of the study was therefore determined by using Yamane Taro's formula (1967).

$$n = \frac{N}{1 + N(e)^2}$$

n = sample size

N = population size = 3000

e = sampling error = 0.05

n = 3000/1+ 3000 (0.05)<sup>2</sup>

n = 3000/8.5t

**n = 352**

### **Data Collection**

A questionnaire was developed to elicit information from participants on contraceptive choices, uptake, and usage. The questionnaire was structured in sections with a focus on demographic data, knowledge on family planning, influence of cultural norms, factors influencing respondents' choice of contraceptives and decision-making process.

### **Pre-testing**

The designed questionnaire was pretested with 35 clients (i.e. 10% of the population) at the Maryam Abacha Women and Children's Hospital, Sokoto. The hospital had similarities with the type of population for the study.

The findings of the pre-test were used to guide the researcher in making adjustments or amendments in the questionnaire for the original research. This pre-testing also helped the researcher to validate the questionnaire towards establishing the reliability of the instrument for the study.

### **Data Collection Procedure**

Ethical clearance from the Institutional Review Board (IRB) of the Noguchi Memorial Institute for Medical Research, University of Ghana, was obtained to gain access to study participants. An introductory letter was also obtained from the School of Nursing and Midwifery at the University of Ghana to the Chief Medical Director of Specialist Hospital for institutional approval where data were collected from women who volunteered to participate in the study. Subsequently, clearance was given by the ethical committee of the specialist hospital Sokoto that allowed the researcher to conduct his research in the hospital. The aim of the research and its significance was discussed with potential respondents of the research using the study information on the questionnaire three nursing officers were trained as Research Assistants to assist in the administration of the questionnaires to women who met the inclusion criteria. Each questionnaire took approximately 45 minutes to 1 hour to complete. The need to respond to all questions in the questionnaire was emphasized. Data collection was completed within three weeks from the day institutional approval was given.

### **Reliability and Validity**

Reliability refers to the consistency and trustworthiness of measurements of attributes that can be assessed using the test-retest reliability method (Strainer, Norman & Cairney, 2015). The internal consistency of a tool is usually assessed based on single administration while the stability of a tool is measured based on multiple administration of the instrument at different times. To enhance reliability, a pre-test of the research instrument was conducted with 35 clients in \Maryam Abacha Women and Children Hospital Sokoto to identify and modify areas of misunderstanding in the tools. The Cronbach's alpha coefficient of reliability of the instrument was also determined and the overall Cronbach's alpha of the research questionnaire was 0.701 which is considered acceptable for newly developed or adapted instruments (Polit & Beck, 2013.) Validity is the accuracy and meaningfulness of inferences, which are based on the research results (Ellis, 2013). The researcher aims for the outcome of the research to be as trustworthy as possible through carefully followed procedures in the entire research process. The questionnaire was subjected to peer review by research experts who ensured that the questionnaire items were congruent with each other whilst noting ambiguities and having a focus on items that met the intended objectives of the study.

### **Data Analysis**

The analytic strategies used in the study was primarily informed by what best fits the data rather than the technique chosen beforehand. After the raw data was collected, the responses were coded and entered into SPSS 20.0 for analysis. Since the data collected was basically quantitative, it was analysed descriptively which included frequencies and percentages. The results were presented using tables and figures. The statistical analysis used for the study was chi-square test of independence and binary logistic regression.

### **Ethical Considerations**

This study was conducted in accordance with the Declaration of Helsinki (World Health Organisation, 2013). The research proposal was first submitted to the IRB of the Noguchi Memorial Institute for Medical Research, University of Ghana for ethical clearance. The research was commenced when clearance was given. After gaining the approval, an introductory letter was obtained from the School of Nursing and Midwifery, University of Ghana which enabled the researcher to gain access to potential participants in the study setting. Clearance was given by the ethical committee that permitted the researcher to elicit information from the clients who were accessing the FP unit of the Specialist Hospital, Sokoto.

To ensure anonymity for participants who agreed to participate in the study (Bowling, 2009), respondents' names were not written on any of the questionnaires, pseudonyms were used instead. Guided by the study information sheet, detailed information about the study was explained to the participants to gain their informed consent prior to administering the questionnaire. Questions and concerns were duly addressed. The right to remain or withdraw from the study without any cost or harm to participants was also explained to all participants. To ensure confidentiality, all personal identifiers were deleted during the writing of the study's findings.

### III. Result

#### Section one: Socio-demographic Characteristic

**Table 4.1 Showing Socio-demographic Data Report of Respondents**

Category	Level	Frequency	Percent (%)
Age (years)	18 – 24	86	24.4
	25 – 29	72	20.5
	30 – 36	99	28.1
	37 – 49	95	27
Education	None	68	19.3
	Basic	26	7.4
	SHS	125	35.5
	Tertiary	133	37.8
Religion	Islam	277	78.7
	Christianity	75	21.3
Occupation	Student	129	37.5
	Unemployed	15	4.4
	Formal	79	23
	Informal	121	35.2
Polygyny	No	207	63.1
	Yes	121	36.9
Number dependents of	None	33	9.7
	1-3	191	56
	4-6	87	25.5
	> 6	30	8.8

Table 4.1 shows the socio-demographic characteristics of the respondents. The results shows 99 (28.1%), 30-36 while 86(24.4%) were ages between 18-24. Education level of respondents revealed 133(37.8%) had tertiary education and 125(35.5%) had secondary education while 68(19.3%) had no formal education. Approximately, four-fifth 277(78.7%) majority of the respondents were Muslims while the remaining were Christians 75(21.3%). Out of the total respondents, 129 (37.5%) were students, 121(35.2%) worked in the informal sector while 79(23.0%) were in the formal sector employment. Some respondents (n = 121, 36.9%) noted their husbands were having other wives (polygamous) while more than half (n = 207, 63.1%) said otherwise. More than half of the respondents (n = 191, 56%) had between 1-3 children while 33(9.7%) of the respondents had no children.

**Table 4.2 Knowledge Level of Respondents on Family Planning Methods**

Knowledge Level	Frequency	Percent
Low	214	60.8
Moderate	58	16.5
High	80	22.7
<b>Total</b>	352	100

Table 4.2 showed respondents had knowledge of one or more contraceptive methods. Out of the 352 respondents, 214 ( 60.8%) had low knowledge on contraceptives, 58(16.5%) had moderate level of knowledge and 80 (22.7%) had higher level of knowledge.

**Table 4.2.1 Knowledge of Specific/Common Types of Family Planning Methods**

Family Planning method	Frequency	Percentage%
Female sterilization	63	21%
Male sterilization	56	18.7%
Implants	228	76%
Intra uterine device	130	43.3%
Injectable	180	60%
Pill	169	56.3%
Female condom	103	34.3%
Male condom	165	55%
Diaphragm	96	32%
Form or jelly	89	29.7%
Calendar method	132	44%
Withdrawal	120	40%
Lactation amenorrhea method	143	47.7%
Emergency contraception	117	39%

Table 4.21 shows the level of knowledge on specific types of FP drugs or devices that are used by the research respondents assessing family planning unit at Specialist Hospital in Sokoto. Majority of respondents (n = 228, 76.0%) know about implants. Most of the respondents (n = 180, 60%) had knowledge about injectable. This was followed by Knowledge about pills 169(56.3%) and male condoms 165(55%). Only 143(47.7%) knew about lactation amenorrhea method. The least known family planning methods was male 56(18.7%) and female 63(21%) sterilization.

**Table 4.4 Distribution of Response on Contraceptives Usage among Women of Reproductive Age**

		Frequency	Percent
Ever use contraceptive	Yes	274	77.8
	No	54	15.3
	Total	328	93.2
Missing	System	24	6.8
Total		352	100.0
Currently using contraceptives	Yes	273	77.6
	No	56	15.9
	Total	329	93.5
Missing	System	23	6.5
Total		352	100.0
Future use of contraceptives	Yes	229	65.1
	No	55	15.6
	I don't know	48	13.6
	Total	332	94.3
Missing	System	20	5.7
<b>Total</b>		352	100.0

Table 4.4 shows the frequency distribution of contraceptive usage among women of reproductive age accessing the family planning unit of Specialist Hospital Sokoto. Respondents who had ever used contraceptives were 274 (77.8%). Most respondents 273(77.6%) were currently using contraceptives while 56 (15.9%) indicated otherwise. Notably, 229 (65.1%) of the respondents were ready to use contraceptives in the future

## IV. Discussion

### Demographic Characteristics

From the findings, it is obvious that women with higher educational qualification have the highest percentage of the respondents 133(37.8%), followed by those with secondary education 125(35.5) and then women with the primary educational background, have the lowest percentage of respondents 26 (7.4%). The finding of this research established that women with higher education are more likely to use contraceptives than their counterparts in secondary school and those in secondary are likely to use contraceptives than those with primary education. The finding of this study is similar to that of Dynes, Stephenson, Rubardt, and Bartel<sup>10</sup> and that of Asekun-Olarinmoye et al.<sup>11</sup>

In relation to occupation of the respondents, the study indicated that students have the highest percentage of contraceptive usage, representing 129(36.6%) out of 352 while those who are formally employed are less likely to use contraceptives. This in juxtaposition with a Tanzanian study confirms that the type of occupation plays a major role in choice and usage of contraceptives<sup>12</sup>.

Seventy-six percent have more knowledge of implant as a contraceptive method in use than injectable contraceptive representing 60%. followed by pills with 56.3% and male and female sterilization are the least known method representing 18.7% and 21.0% respectively. The finding of this study is similar to the finding of Shehu and Burodo<sup>13</sup> which indicated that majority of the respondents in the research have knowledge on Implant as their contraceptive of choice as compared with other available contraceptives. Similarly, a study conducted in Nigeria revealed that majority of the respondents had the knowledge of contraceptives usage<sup>14</sup>. In addition, a study on knowledge of adolescent on contraceptive by Rahman and Kabir<sup>15</sup> has revealed that all the understudied participants had knowledge on a specific contraceptives. In contrast, this current study finding revealed that the participants had more knowledge on pills with 99.3% followed by condom with 85.3%. This finding can be attributed to respondents level of education, hence the need to increase awareness on contraceptives. Therefore, it can be concluded that age, the level of education and occupation has a positive impact on the usage and choice of contraceptives among the understudied participant in the specialist hospital in Sokoto. In relation to occupation of the respondents, students had the highest percentage of 129(36.6%) out of 352 while those who were formally employed were less likely to use contraceptives. This finding is similar to that observed in Tanzania which reveals that the type of occupation plays a role in choice and usage of contraceptives<sup>12</sup>

The study showed that, respondents had knowledge of one or more contraceptive methods. However, the level of knowledge is unsatisfactory. Out of the 352 respondents, 214 ( 60.8%) had low knowledge on contraceptives, 58(16.5%) had moderate level of knowledge and 80 (22.7%) had higher level of knowledge. In this study, implanon was the well-known birth control method among all respondents. This could be due to the efficacy of the drug, affordability, accessibility, its long lasting effect and partner's agreement to its choice. This is similar to the finding of Shehu and Burodo<sup>13</sup> which indicated a higher percentage of the research participants representing 55.8% chose Implanon. However, this finding is inconsistent with that of Abdulai which indicated that condom is the most common method of choice in Tamale metropolis<sup>16</sup>. In this study, the most common contraceptive method used is the implanon 125(35%) and closely followed by injectable with 90(30.6%). This could be due to the higher knowledge the respondents have about implanon.

In this study, respondents who had ever used contraceptives were 274 (77.8%). Most respondents 273(77.6%) were currently using contraceptives while 56 (15.9%) indicated otherwise. Notably, 229 (65.1%) of the respondents were ready to use contraceptives in the future. This projected the fact that there is high level of contraceptive utilization despite poor knowledge. The use of contraceptives was prevalent among the student population as 129 (36.6%) among the participants. This may be associated with the desire to control unplanned pregnancies to allow concentration on learning. This was followed by home keepers with 88 (25.0%). The finding has revealed that women without formal education, had a 48% reduction in the odd of once contraceptives and 66% reduction in the odd of those who are currently using contraceptives. This revealed outcome affirms that of (Dynes et al.<sup>10</sup>

## V. Conclusion

The study findings have revealed that majority of the study participants have knowledge on at least one method of contraceptives with a greater number of the participants having knowledge on the implant with evidence of a higher prevalence rate as compared to the other methods such as injectable and pills. The finding also revealed that respondents chose contraceptives that suited them based on convenience, affordability, privacy, and accessibility.

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