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Attitude, Practice, and Factors Affecting Contraceptive Use among Women Attending Postnatal Care in a Tertiary Health Facility in Jos North LGA, Plateau State, Nigeria

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Abstract

The high population growth rate has been associated with the increased level of poverty, morbidity, mortality, and decreased life expectancy. Modern contraception is an important factor in controlling fertility through prevention of unintended and unwanted pregnancies. Contraception (birth control) prevents pregnancy by interfering with the normal process of ovulation, fertilization, and implantation. Contraceptive use is still very low in Nigeria and Sub-Saharan Africa (SSA), where the levels of fertility and unmet need for family planning are high. The attitude of women toward contraception will usually affect the practice and utilization of contraceptives. The objective of this study is to assess the attitude, prevalence, and factors affecting contraceptive use among women attending Postnatal care in a tertiary health facility in Jos North L. G. A Plateau State, Nigeria. There was a descriptive cross-sectional study done between September to October 2019, with a sample size of 250 women. Respondents were determined using a multi-stage sampling method. Data collection was done using an interviewer-administered, pre-tested, structured questionnaire. The data was collected, entered, and analyzed using IBM Statistical package for social sciences (SPSS) version 20.0. Most women have a positive attitude 162 (64.8%) toward contraception while 88 (35.2%) had negative attitude toward contraception. Three quarters (75.2%) of women are willing to use contraception. The prevalence of contraceptive use among respondents was 35.6% while the prevalence of previous use of contraceptives among the respondents was 71.2%. Fifty (27.9%) used condom (barrier method), 40 (22.9%) used withdrawal method. Majority of the other respondents

were spread across OCPs, injectables and implants. Major factors affecting the use of contraceptives were majorly attributed to informed choice with 60.1%, Partner's decision (44.1%) and mild or no adverse reaction (12.8%). While major factors preventing use were lack of interest in 69.4%, partners' decision in 14.9% and fear of side effects 12.5% of respondents. Respondents showed a wide acceptance of family planning services as majority of them see it as beneficial and are willing to go for another method after current pregnancy.

Keywords

Attitude, Contraception, Postnatal, Women

1. Introduction

Contraception is unique among medical interventions because it leads to positive outcomes. It is an effective means of Family Planning and fertility control and therefore very important in promoting maternal and child health [1]. Increasing contraceptive use in the developing countries has cut the number of maternal deaths by 40% over the past 20 years, merely by reducing the number of unintended pregnancies [2]. Family Planning (FP) is one of the most cost-effective ways to prevent maternal, infant and child morbidity and mortality. It can reduce maternal mortality by reducing the risk of unintended pregnancies, the number of abortions, and the proportion of births at high risk. It has been estimated that meeting women's need for Modern Contraceptives would prevent about one-third of all maternal deaths, through saving 140,000 to 150,000 lives per year [3].

Family planning has been instrumental in maintaining reproductive health for many decades, family planning services are defined as "educational, comprehensive medical or social activities which enable individuals, including minors, to determine freely the number and spacing of their children and to select the means by which this may be achieved" [4]. Although the use of modern contraceptives is an important factor in controlling fertility through prevention of unintended and unwanted pregnancies, contraceptive use is still very low in Sub-Saharan Africa (SSA), where the levels of fertility and unmet need for family planning are high [5]. Studies have shown that only about 15 percent of sexually active Nigerian women currently practice effective contraception though the figure varies from region to region being higher in the southern part of the country [6] with a prevalence of modern contraceptive use of 12.5% among married women compare to a prevalence rate of 5.3% among married women in the Northern part of the country. The same pattern follows for fertility rate where the northern part of the country has a higher fertility rate of 6.6% compared to 4.5% in the south and a higher maternal mortality rate of 1287 per 100,000 live birth [5] in the north compared to 225 per 100,000 live birth in the

south [6].

It is important to focus on Nigeria for two reasons. Firstly, contraceptive prevalence rate is low in the country especially in the north with high unmet need for family planning among sexually active women. Secondly, being the most populous country in Africa, the adverse effects of unintended pregnancy may affect more women and children in Nigeria than in other African countries [7].

In Nigeria, the high annual population growth rate has been a major cause of concern for population experts and policy makers. Increasing modern contraceptive use in Sub-Saharan Africa is a multi-faceted problem that will require community and systems wide interventions that aim to counteract negative perceptions and misinformation [8] [9]. Among women of reproductive age in developing countries, 867 million (57%) are in need of contraception because they are sexually active but do not want a child in the next two years. Of these, about 222 million (26%) do not have access to modern methods of contraception, resulting in significant unmet need [9]. Unmet need for family planning was added to the fifth Millennium Development Goal as an indicator for tracking progress on improving maternal health [10] [11]. In Nigeria, according to the population census of 2006, there were, at that time, 44,152,637 women of reproductive age. The Nigerian Demographic and Health Survey (NDHS) [12] [13] 2013 reported that only 15.1% of married women of reproductive age were using any contraceptive. 10% of currently married women reported using a modern method, and 5% use other methods of contraception. In addition, there is a significant unmet need for family planning in Nigeria; 16% of married women have an unmet need for family planning [12] [14]. The Multiple Indicator Cluster Survey revealed that contraceptive prevalence rate is 17.5% and unmet need for contraception is 19.4% [14].

The most common method in the developed world is condoms and oral contraceptives, while in Africa it is oral contraceptives and in Latin America and Asia it is sterilization. In the developing world overall, 35% of birth control is via female sterilization, 30% is via IUDs, 12% is via oral contraceptives, 11% is via condoms, and 4% is via male sterilization [15] [16]. While less used in the developed countries than the developing world, the number of women using IUDs as of 2007 was more than 180 million. Avoiding sex when fertile is used by about 3.6% of women of childbearing age, with usage as high as 20% in areas of South America. Contraceptive use among women in Sub-Saharan Africa has risen from about 5% in 1991 to about 30% in 2006.

Results from the 2013 Nigeria Demographic and Health Survey [13] showed that only 10% of currently married women of reproductive age (15 - 49 years) are using a modern contraceptive method, with wide disparities among the regions in Nigeria (24.9% in South West, 16.4% in South, 12.4% in North Central, 11% in South East, 3.6% in the North West and 2.7% in the North East). Unmet Need for Family Planning "Unmet need" represents the proportion of women who have expressed a desire to either space or limit their childbearing but are not using a Family Planning method. Available statistics indicate that there is a

significant and persistent unmet need for Family Planning in Nigeria: 18% in 1999, 17% in 2003, 20% in 2008 and 16% in 2013 (NDHS, 2013) [13] [17].

In a study done in Markurdi, [18] contraceptive prevalence was 39%. Studies in Port-Harcourt [19] showed 25.7% of the respondents had used one form of the other, in Calabar metropolis [20] 21.6% currently use modern contraceptive, in Ogbomoso [21] in 2018, on contraceptive prevalence wase 25.4%. The Multiple Indicator Cluster Survey revealed that contraceptive prevalence rate is 17.5% and unmet need for contraception is 19.4%. [14] The most recent Nigeria Demographic and Health Survey (2013) put the overall contraceptive prevalence rate among married women aged 15 - 49 years using modern methods at 9.8% against 9.7% in the 2008 report on contraceptives [13] [14]. In Africa, 55.1 % had ever used any method to prevent pregnancy Uganda [22], 20% in Liberia. In Botswana, Togo, Zimbabwe, and in all of North African, Asian, and Latin American countries (except Bolivia and Guatemala), more than half of currently married women have used a contraceptive method at some time [23] [24]. While 86% in Brazil 86% of women use contraceptives.

Concerning factors affecting contraceptive use, in Pakistan, [25] 13% percent of women cite "religion" as a reason for not intending to use contraception, husbands 18%. In India (Malda District, West Bengal), religion, caste, age, education, occupation and number of living children had a direct effect on the acceptance/use of contraception [26]. In Nepal, on factors affecting contraceptive use among married women of reproductive age, education 331 (89.5%) of women's and 352 (95.1%) of husbands [27].

The study seeks to assess the attitude, practice and the factors affecting contraceptive use among women attending postnatal care in a tertiary health facility in Jos North L. G. A Plateau State.

2. Materials and Methods

The study was carried out in Bingham University Teaching Hospital (BHUTH) which is a faith based tertiary health institution located in Jos north local Government area of Plateau state. This study was done in September to October 2019. The LGA has its headquarters in the city center of Jos which is located at 9˚55'N 8˚54'E. It has an area of 291 km^2 and a population of 429,300 at the 2006 consensus (NDHS, 2013) with 266,660 (62%) being urban dwellers and 163,134 (38%) rural dwellers. In 2009, the National population commission estimated population of Jos North LGA as 439,217 comprising of 220,856 males and 216,361 females. It was estimated that 3000 pregnancies occurred per annum. Jos North has 71 health care centers of which twenty-nine (29) are primary health care (PHC) centers. There are two teaching hospitals in Jos, Plateau State namely Jos University Teaching Hospital and Bingham University Teaching Hospital.

Bingham University Teaching Hospital is a 150-bed space institution established in 1959 by the then Sudan Interior Mission (SIM) missionaries but pre-

sently owned by Evangelical Church Winning All (ECWA). Some of its specialties include ENT, Surgery, Internal Medicine, Pediatrics, Obstetrics and Gynaecology, Ophthamology, Vesico-vaginal fistula surgery, HIV care and Anteretroviral treatment programmes [28]. The Obstetrics and Gynaecology unit runs Antenatal and Postnatal care services with ANC recording about 795 new pregnancy visits each year, with increased visits usually recorded in May. The ANC clinic holds on Mondays and Thursdays with booking on Fridays. The study population consisted of women receiving postnatal care at Bingham University Teaching Hospital, Jos North LGA who were able to communicate in Hausa, Pidgin or English. Women who are registered in the facility for postnatal care services and have consented to be part of the study were included while women who are not registered in the above-named facility, and women who are registered but do not consent to be part of the study.

The study design was a descriptive cross-sectional study designed to assess attitude and practice of contraceptive use among women attending Postnatal at Bingham University Teaching Hospital, Jos North, Plateau state.

The sample size was determined using Fisher formula [5]

$$n = z^2 pq/d^2 = 1.96^2 \times 0.2 \times (1-0.2)/0.05^2 ; \quad n = 246,$$

where, n = minimum sample size; z = standard normal deviation at 95% confidence interval = 1.96; p = proportion of the population having the characteristic of interest = 20% [28]; $q = 1 - p$, d = level of precision which is usually 0.05 [5]. Hence, the minimum sample size is 246. A non-response rate of 10% is added therefore the final sample size is 270.

Multi-stage sampling method was used. Stage 1: Simple Random Sampling was used in this stage. Of the two teaching hospitals in Jos North local government (Bingham University Teaching Hospital and Jos University Teaching Hospital) one was selected using balloting method. Stage 2: simple random sampling was used in this stage. Women attending antenatal were selected using Simple Random Sampling. The list of women registered for postnatal was used as the sampling frame [6]. Data was collected using an interviewer-administered, pre-tested, structured questionnaire. The questionnaire has sections on demography of the respondents, ten (10) questions on attitude and 4 (four) questions on prevalence and factors affecting contraceptive use. Prior to data collection, permission was sought and obtained from the Chairman medical advisory committee of Bingham University Teaching Hospital. Informed verbal consent was sought and obtained from the Head of Department Obstetrics and Gynaecology. Consent was also sought from each respondent after the purpose of the study was clearly explained to them. They were also informed that participation in the study was voluntary and that they could decide to withdraw their participation at any point in the interview. To ensure confidentiality, serial numbers rather than names were used to identify respondents.

The data was collected, entered, and analyzed using IBM Statistical package for social sciences (SPSS) version 20.0. Ethical approval to conduct this study was

obtained from the research ethics committee of Bingham University Teaching Hospital (BHUTH) Jos, which was duly supervised by the consultant to ensure all research ethics were strictly adhered to. Limitations were language barrier in interviewing clients from minor Nigerian tribes and limited cooperation from certain religious groups.

3. Findings

1) Attitude towards contraception

In Table 1, most respondents agree that 166 (66.4%) it is important to have discussion about contraception with partner. A higher proportion 192 (76.8%) of women have interest in knowing about contraception.

Majority of women agree 238 (95.2%) that contraception is important for women. Most respondents agree that 198 (79.2%) contraception is important to the family. Majority of women disagree 132 (52.8%) that family size affects family development.

A high proportion 188 (75.2%) of women are willing to use contraception. Most women agree that 192 (76.8%) advising other women about contraception is good. A third of the women disagree that 95 (38.0%) children are an asset to the family. Two third of the women disagree that 162 (64.8%) that families with many sons are more respected than families with many females.

Two third of the women disagree that 168 (67.2%) that families with many sons are more respected than families with many females.

Table 2 shows that most women have a positive attitude 162 (64.8%) toward contraception while 88 (35.2%) had negative attitude toward contraception.

2) Prevalence and factors influencing contraceptives use among respondents

Table 1. Attitude towards contraception use among women attending postnatal clinic.

Variables	Agree		Disagree	
	Frequency	Percent	Frequency	Percent
1. Discussion with partner about contraception is important?	166	66.4%	84	33.6%
2. Do you have interest to know about contraception?	192	76.8%	58	23.2%
3. Using contraception is important for women?	238	95.2%	12	4.8%
4. Using contraception is important for the family?	198	79.2%	52	20.8%
5. Large family size affects development of a family?	118	47.2%	132	52.8%
6. Are you willing to use contraception?	188	75.2%	62	24.8%
7. Advising other women for contraception is good\appropriate?	192	76.8%	58	23.2%
8. Having many children is an asset for the family?	155	62.0%	95	38.0%
9. Family who had many sons is respected than family who had many females?	88	35.2%	162	64.8%
10. It is not a sin to use contraception?	82	32.8%	168	67.2%

Table 2. Attitude towards contraceptives.

	Frequency	Percentage (%)
Positive Attitude	162	64.8
Negative Attitude	88	35.2
Total	250	100

Of the 250 respondents interviewed, one hundred and seventy-eight (71.2%) have ever used one form of family planning method or the other while seventy-two (28.8%) have never used any form. While those currently using Contraceptives were 89 (35.6%) and those not using were 161 (64.4%). Current prevalence was 35.6%.

Table 3 shows respondents' distribution on the types of contraceptive methods ever used. Of the one hundred and seventy-eight respondents, seventy-four (41.3%) have ever used condom (barrier method). Sixty-one (34.1%), had used withdrawal method, 34 (19.0%) had used implants, 33 (18.4%) had used oral contraceptive pills, 32 (17.9%) had used injectables, 14 (7.8%) had used Intrauterine contraceptive device, 12 (6.7%) had used abstinence, 11 (6.1%) had used Lactational Amenorrhea Method as a form of family planning method.

Figure 1 shows that among the respondents, 71.2% have ever used one form of contraceptive of the other while 28.8% have never used any form of contraceptive.

Figure 2 reveals that 41.3% have ever used condom, 34.1% have ever used withdrawal method, 19.0% used injectables, 18.4% used OCPs, 17.9% used implants, 7.8% used IUCD, 6.7% used abstinence method, 6.1% used Lactational Amenorrhea Method.

Table 4 shows the respondents distribution of the method of contraceptive used before current pregnancy. Fifty (27.9%) of the one hundred and seventy-eight respondents used condom (barrier method). Forty (22.9%) used withdrawal method, twenty-seven (15.1%) used implants, twenty-two (12.3%) used injectables, eighteen (10.1%) used OCPs, nine (5.0%) used IUCD, eight (4.5%) used abstinence method and four (2.2%) used LAM.

Figure 3 shows that 27.9% of the one hundred and seventy-eight respondents used condom (barrier method), 22.9% used withdrawal method, 15.1% used implants, 12.3% used injectables, 10.1% used OCPs, 5.0% used IUCD, 4.5% used abstinence method and 2.2% used LAM.

Table 5 shows a cross tabulation between socio demographic status of the clients and use of contraceptives.

There is a statistically significant association between age of respondents and use of contraceptive. A higher proportion of women aged 35 - 44 years (77.1%) had used one form of contraceptive or the other, than younger women aged 15 - 24 years 10 (47.6%) ($x^2 = 9.31$, p = 0.025).

A higher proportion of women with youngest child aged between 1 - 3 years

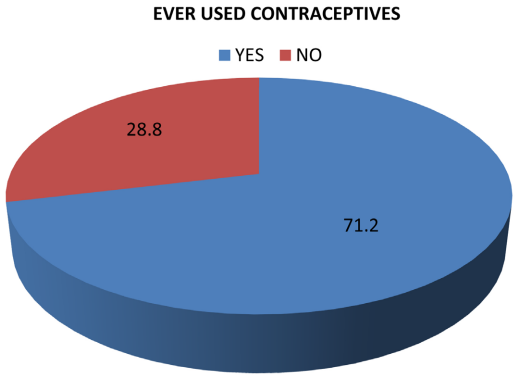

Figure 1. A pie chart showing percentage use of contraceptives.

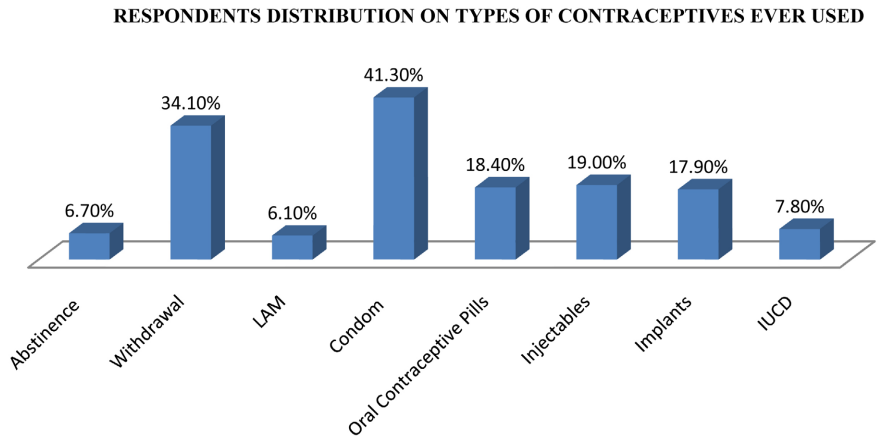

Figure 2. A bar chart representing the percentage use of contraceptives by the respondents.

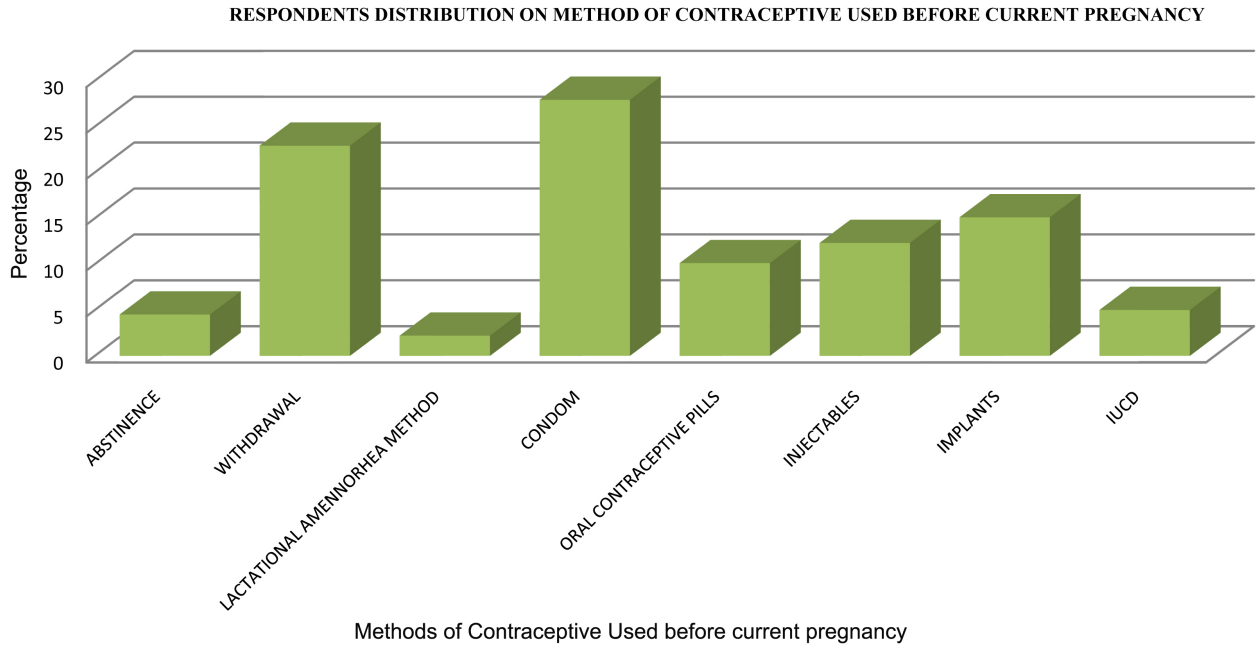

Figure 3. Bar chart showing a pictorial representation of the distribution of the methods of contraceptive used just before current pregnancy.

Table 3. Respondents use of contraceptives.

Ever used contraceptive (Prevalence of previous use	Frequency	Percent (%)
Yes	178	71.2
No	72	28.8
Total	**250**	**100.0**
Currently using Contraceptive	**Frequency (n = 250)**	
Yes	89	35.6
No	161	64.4
Type of contraceptive ever used	**Frequency (n = 178)**	**Percentage (%)**
Abstinence	12	6.7
Withdrawal	61	34.1
Lactational Amenorrhea Method	11	6.1
Condom	74	41.3
Oral Contraceptive Pills	33	18.4
Injectables	34	19.0
Implants	32	17.9
IUCD	14	7.8

Table 4. Method of contraceptive used before immediate past pregnancy.

Contraceptive used before immediate past pregnancy	Frequency (n = 178)	Percent (%)
Abstinence	8	4.5%
Withdrawal	40	22.9%
Lactational Amennorhea method	4	2.2%
Condom	50	27.9%
Oral contraceptive pills	18	10.1%
Injectables	22	12.3%
Implants	27	15.1%
IUCD	9	5.0%

Table 5. Association between socio-demographic characteristics and practice of contraceptive use.

Variable	Yes	No	Test Statistics
Age group Of Respondents (years)			
15 - 24	10 (47.6%)	11 (52.4%)	$x^2 = 9.31$

Continued

25 - 34	121 (72.5%)	46 (27.6%)	p = 0.025*
35 - 44	47 (77.1%)	14 (22.9%)	
45 - 54	0	1 (100%)	
Age of youngest Child			
1 - 3	97 (80.8%)	23 (19.2%)	x^2 = 26.94
4 - 6	40 (80%)	10 (20%)	p = 0.001*
7 - 9	5 (71.4%)	2 (28.6%)	
10 - 12	1 (100%)	0	
No child	35 (48.6%)	37 (51.4%)	
Level Of Education			
None	1 (12.5%)	7 (87.5%)	x^2 = 14.47
Primary	4 (66.7%)	2 (33.3%)	p = 0.002*
Secondary	34 (69.4%)	15 (30.6%)	
Tertiary	139 (74.3%)	48 (25.7%)	
Religion			
Islam	11 (42.3%)	15 (57.7%)	x^2 = 11.81
Christianity	167 (74.6%)	57 (25.4%)	p = 0.001*
Occupation			
Housewife	36 (76.6%)	11 (23.4%)	x^2 = 13.33
Civil servant	72 (79.2%)	19 (20.8%)	p = 0.020*
Trading	41 (67.2%)	20 (32.8%)	
Farming	5 (83.3%)	1 (16.7%)	
Artisan	5 (38.5%)	8 (61.5%)	
Others	19 (59.4%)	13 (40.6%)	
Marital Status			
Single	2 (66.7%)	1 (33.3%)	x^2 = 0.435
Married	175 (71.1%)	71 (28.9%)	p = 0.805
Widowed	1 (100%)	0	
Number Of Children			
None	35 (48.0%)	38 (52.0%)	x^2 = 29.40
1 - 2	57 (79.2%)	15 (20.8%)	p = 0.001*
3 - 4	32 (84.2%)	6 (15.8%)	
>4	54 (80.6%)	13 (19.4%)	

used contraceptives 97 (80.8%) more than those whose youngest child was 7 - 9 years 5 (71.4%). This is statistically significant (x^2 = 26.94, p = 0.001).

A higher proportion of women who had attained tertiary level of education (74.3%) had used one form of contraceptive or the other when compared to women with no level of education 1 (12.5%). This is statistically significant (x^2 = 14.47, p = 0.002).

A higher proportion of Christian respondents 167 (74.6%) had used one form of contraceptive or the other as compared Muslim respondents 11 (42.3%). This is statistically significant (x^2 = 11.81, p = 0.001).

A higher proportion of respondents who were married 175 (71.1%) had used one form of contraceptive or the other when compared to single women 2 (66.7%). This is not statistically significant (x^2 = 0.435, p = 0.805).

A higher proportion of women having 3 - 4 children 32 (84.2%) had used one form of contraceptive or the other when compared to women with no children (52.0%). This is statistically significant (x^2 = 29.40, p = 0.001*).

Table 6 shows respondents' distribution on the factors affecting their use of contraceptives and non-use of contraceptives among non-users.

One hundred and six (60.1%) attributed their use to informed choice, seventy-nine (44.1%) attributed their use to Partner's decision, twenty-three (12.8%) attributed their use to mild or no adverse reactions, twenty (11.1%) said access

Table 6. Respondents distribution on factors affecting use and nonuse of contraceptive.

Factors affecting use of contraceptive	Frequency (n = 178)	Percentage (%)
Informed Choice	106	60.1
Cost of Contraceptive	7	4.0
Access to Family planning services	20	11.1
Partner's decision	79	44.1
Existing medical conditions	6	3.3
Adverse reactions	23	12.8
Factors affecting non-use of contraceptives	**Frequency (n = 72)**	**Percentage (%)**
Partner's decision	11	14.9
Cost of contraceptives	1	1.4
Lack of informed choice	3	4.2
Level of efficacy	2	2.8
Against culture	2	2.8
Against religion	2	2.8
Fear of side effects	9	12.5
Access to services	1	1.4
No reason	51	69.4

to family planning was the reason for use, seven (4.0%) attributed their use to cost of contraceptives while six (3.3%) attributed their use to existing medical conditions.

Fifty-one (69.4%) said they have no reason, eleven (14.9%) attributed non-use to partner's decision, nine (12.5%) attributed non-use to fear of side effects. Three (4.2%) attributed non use to lack of informed choice, level of efficacy, cultural belief and religious belief all accounted for 2.8% respectively while cost of contraceptives and access to services both accounted for 1.4% of reason for non-use.

4. Discussion

This study reveals that about two thirds (64.8%) of women have a positive attitude toward contraception, this is demonstrated in a similar proportion agreeing that it is important to have discussion about contraception with partner and three quarters have interest in knowing about contraception. Majority of the women agree that contraception is important for them, and their family and contraception does not affect family development. Their positive attitude is further expressed as most women agreed to advising other women about contraception. This finding presents a huge opportunity for women to discuss matters concerning their health their spouses which can yield to family agreements and improve women empowerment. This is similar to findings done in Enugu where 85% of women had a positive attitude toward contraception [29]. But, it contrasts with studies done in Delta State. [30] and Ogun State, Nigeria [31] where less than half of the women believe that contraceptives are essential. This disparity may be because women in the latter studies believe contraception promotes promiscuity, and is not safe, and contains dangerous chemicals which can damage their reproductive system. Beliefs like this have led to negative attitude and then resulted in the low use of contraceptives.

The prevalence of previous use of contraceptives among the respondents was 71.2% as three-quarter of respondents have ever used one form of contraceptive or the other with about half of the respondents stating condoms (barrier method) as the contraception of choice reason been that they have a very good knowledge about it, and it was easily accessible with no side effects. In contrast, only 35.6% currently using Contraceptives (thus a prevalence was 35.6%). This means that about half of those who have ever used contraception are currently sing it as at the time of the study. This finding on prevalence of use of contraceptives is in contrast with National Demographic Health Survey which puts the overall contraceptive prevalence rate among married women at 9.8% [13] [32]. The Multiple Indicator Cluster Survey conducted in Nigeria in 2011 revealed that contraceptive prevalence rate is 17.5% and unmet need for contraception is 19.4% [14]. The 2018 Nigeria Demographic and Health Survey (NDHS, 2018) put the overall contraceptive prevalence rate among married women aged 15 - 49 years using modern methods at 12.0%, [33] against 9.8% 2013 report, [13]

against 9.7% in the 2008 report on contraceptives [32]. A review of independent surveys done across Nigeria show a prevalence of contraceptive use as 25.7% in Port Harcourt [19], 21.6% in Calabar [20], 26.4% in Benin [34], 25.4% in Ogbomosho [21], 39.0% in Markurdi [35] 31.6% in Kano [36] and 18.1% in Sokoto [37]. These prevalence's remain below 50% and the differences may be due to different levels of acceptance, educational background, religion, cultures, and beliefs. The public health significance of this findings regarding prevalence of use is that there are gaps in the current use of contraceptives among women in Nigeria. Thus, more efforts on education and communication of benefits of contraception. This can help in reducing the high annual population growth rate which has been a major cause of concern for population experts and policy makers [9]. This level of current use of contraceptive can be improved as over three quarters (75.2%) of women are willing to use contraception, thus it's the responsibility of government, health system, development partners, the community, and other stakeholders to work towards meeting this health need.

Majority of women aged 35 - 44 years (77.1%) had used one form of contraceptive or the other, than younger women aged 15 - 24 years (47.6%) ($p = 0.025$). This can be attributed to the fact that the women between 33 and 44 years must have had better exposure about contraceptives from sources like the media, health facility, discussion with friends at place of work and considering that they fall within a highly mobile and explorable working class group as compared to women aged 15 - 24 years who are still younger and not as exposed. A higher proportion of women who had attained tertiary level of education had used one form of contraceptive or the other as compared to women with no level of education (this is statistically significant, $p = 0.002$). This emphasizes the place of education and practice as women who are educated tend to be more welcoming to new ideas especially when it relates to their health because of adequate exposure from media, friends, and colleagues as compared to uneducated women who are more likely to stick to age-long family beliefs and system with reduced or no propensity to change. This by extension has led to increased mortality from pregnancy related conditions among uneducated women compared to the educated. Female education is an important public health strategy as it empowers women to seek health care and take decisions affecting their health.

This study also showed that contraceptive use was low among the Muslim population compared to the population of Christian respondents and this also correlates with the study done in Bangladesh in 2016 where contraceptive use was also low among the Muslim population [38]. Similarly, findings reveal that a higher proportion of Christians had used one form of contraceptive or the other when compared to the population of Muslim respondents (p value = 0.001). This finding is due to various reasons which include the fact that the research work was done in a Christian missionary teaching hospital located in a predominantly Christian area. Thus, the percentage ratio of the Christian to Muslim population was skewed. Secondly the research work done in Bangladesh [38] revealed that

for Muslim women, decisions regarding their general health were solely taken by their husbands. This must have been the case in this study where respondents probably have no choice regarding the use of contraceptive unless they are permitted by their spouses/partners. This is also common across communities in Nigeria, as only 34% of married women participate in decisions regarding their own health care, household purchases, and visits to their family or relatives [33]. A higher proportion of women who were civil servants had used one form of contraceptive or the other when compared with artisans (p value = 0.002). Artisans also had had the highest proportion of non-use of contraceptives being a working-class mother can be very demanding as she needs to balance between the upkeep of the family, home and children, and her daily tasks at her place of employment. This situation is a bit different with artisans like tailors and other small scale business owners who are their own bosses and can take all the time they want to stay at home to cater for the family and the home and still go to their workplace at their own will. Civil servants would want to adequately space their children to allocate the available time to family and work. It is also possible that artisan would even want more children who would help them run their businesses and learn the trade.

The major determinants of contraceptive use gotten from the results included informed choice from two-third of the respondents, partner's decision from about half of the respondents. This is commendable as it reflects good attitude and promotes utilization and shows that a woman can choose a form of contraceptives been fully aware of its indications, contraindications, side effects and efficacy. Partner's involvement as a reason of contraceptive choice accounted for in half of the respondents. This reflects joint decision making regarding the family health. This in another light might result in a tendency of bias in the choice of contraceptives on either the part of the woman or her partner as both would want to make decisions that best favor them. This is in consonance with the study done in Nepal in 2013 where informed choice and partner's decision were key factors affecting the use of contraceptives [27]. Access to family planning services and cost of contraceptive also were important determinants of contraceptive use. These findings are commendable as family planning has been made available, accessible, and affordable at little or no price in most health facilities and most drug outlets. Concerning factors causing nonuse of contraceptive, over half of the respondents had no reason. This is most likely attributable to poor conversion of positive attitude to real life utilization. This was followed by partner's reservation towards adoption of contraceptive as seen in one-tenth of the population. Other factors leading to no use of contraceptives were fear of side effects, cultural and religious beliefs, each with proportions below one-tenth. Generally, the significance of a woman's inability to make personal decisions concerning her health as regards utilization of family planning services will increase maternal mortality and morbidity from pregnancy related complications like Ante partum and postpartum hemorrhages, uterine rupture in a grand mul-

tiparous woman, pregnancy induced hypertension and others. This has also led to increased socio-economic burden and a high demand on the government as regards taking up the responsibilities of catering for orphaned children and the increasing children and youth population. These needs such as education, water, shelter, food, health services and other basic needs are not really met thereby resulting in high level of children begging on the streets, crime, cultism, and all forms of social vices.

This study is limited as it is a cross-sectional study design that cannot establish causal inferences and trends between contraceptive use and factors affecting the use. The responses from respondents were based on self-reports and depended on the truthfulness of the respondents. Recall bias could have occurred especially among respondents who have used several substances at various times. Researcher ensured that women were comfortable with stating the truth by guaranteeing anonymity during data collection.

5. Conclusion

Most women have a positive attitude 162 (64.8%) toward contraception while 88 (35.2%) had negative attitude toward contraception. Three quarters (75.2%) of women are willing to use contraception. The prevalence of contraceptive use among respondents was 35.6% while prevalence of previous use of contraceptives among the respondents was 71.2%. Major factors affecting the use of contraceptives were majorly attributed to informed choice with 60.1%, Partner's decision (44.1%) and mild or no adverse reaction (12.8%). While major factors preventing use were lack of interest in 69.4%, partners' decision in 14.9% and fear of side effects 12.5% of respondents. Respondents showed a wide acceptance of family planning services as majority of them see it as beneficial and are willing to go for another method after current pregnancy

6. Recommendation

To the Hospital and Government:

1) Should leverage on the positive attitude of women toward contraception to improve contraceptive prevalence and utilization of family planning services.

2) Support the willingness of women to utilize contraception by continuous health education.

3) Increase the number of family planning weekly clinics to increase opportunity for education of the women and their partners thereby enhancing utilization about family planning.

4) Encourage male partners to support women who want to adopt contraception and give incentives to families or husbands who support their women.

To the Women

1) Should foster establishment of social support groups and discussion avenues where contraception can be freely discussed among women. Thus, leveraging on their willingness and attitude to help discuss contraception with peers to

2) Encourage women to come along with partners for postnatal care clinics and family planning clinics so decision making regarding the acceptance and choice of contraceptive would be a collective one.

3) Encourage women to apply themselves during postnatal visits by asking questions and participating more in the activities carried out to ensure they do not miss out on the important information being passed regarding their health in general and family planning.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] Oye-Adeniran, B.A., Adewole, I.F., Umoh, A.V., Oladokun, A., Ghadegesin, A., Ekanem, E.E., *et al.* (2006) Community-Based Study of Contraceptive Behavior in Nigeria. *African Journal of Reproductive Health*, **10**, 90-104. https://doi.org/10.2307/30032462

[2] Cleland, J., Agustin, C.A., Peterson, H., Ross, J. and Tsui, A. (2012) Contraception and Health. *Lancet*, **380**, 149-156. https://doi.org/10.1016/S0140-6736(12)60609-6

[3] MedicineNet (2019) Definition of Birth Control. https://www.medicinenet.com/script/main/art.asp?articlekey=53351

[4] https://en.wikipedia.org/wiki/Family_planning

[5] Cochran, W.G. (1963) Sampling Techniques. John Wiley and Sons Inc., New York.

[6] Nickolas, S. (2018) What's an Example of Stratified Random Sampling? http://www.investopedia.com

[7] Solanke, B.L. (2017) Factors Affecting Contraceptive Use and Non-Use among Women of Advanced Reproductive Age in Nigeria. *Journal of Health, Population and nutrition*, **36**, Article No. 1. https://doi.org/10.1186/s41043-016-0077-6

[8] Singh, S., Darroch, J.E., Vlassof, M. and Nadeau, J. (2003) Adding It Up: The Benefits of Investing in Sexual and Reproductive Health Care. Alan Guttmacher Institute, New York.

[9] Oyedokun, A. (2007) Determinants of Contraceptive Usage: Lessons from Women in Osun State, Nigeria. *Journal of Humanities and Social Sciences*, **1**, 1-14.

[10] Magure, T.M., Manene, I., Munjaya, S.P., Bradley, S.E.K. and Mishra, V. (2010) Trends in Unmet Need and Demand for Family Planning in Zimbabwe. Zimbabwe Working Papers, No. 6, ICF Macro, Calverton.

[11] Singh, S. and Darroch, J.E. (2012) Adding It Up: Costs and Benefits of Contraceptive Services: Estimates for 2012. Guttmacher Institute, New York.

[12] National Population Commission (NPC) [Nigeria] and ICF International (2014) Nigeria Demographic and Health Survey 2013. Abuja, Nigeria, and Rockville, Maryland, NPC and ICF International.

[13] National Population Commission (NPC) and ICF Macro (2009) Nigeria Demographic Health Survey 2008: Key Findings. National Population Commission (NPC) and ICF Macro, Calverton, 63-86.

[14] National Bureau of Statistics (2013) Multiple Indicator Cluster Survey 2011 Main Report. National Bureau of Statistics, Abuja, 121-146.

[15] Vu, L.T.H., Oh, J., Bui, Q.T.-T. and Le, A.T.-K. (2016) Use of Contraceptives among Married Women in Vietnam; A Multilevel Analysis Using Multiple Indicator Cluster Survey and Vietnam Population Housing Census (2009). *Global Health Action*, **9**, Article ID: 29574. https://doi.org/10.3402/gha.v9.29574

[16] Fayehun, F. (2017) Contraceptive Use in Nigeria Is Incredibly Low. The Conversation National Research Foundation, 1-3.

[17] Federal Ministry of Health (2019) National Family Planning Communication Plan (2017-2020) Strategy for Increasing the Use of Modern Contraceptives in Nigeria. Federal Ministry of Health, Abuja.

[18] Hembah-Hilekaan, S.K., Augustine, O.O., Onyemocho, A., Onche, P.E., Maanongun, M.T., *et al.* (2018) Trends in Contraceptive Choices among Women Attending the Family Planning Clinic in a Nigerian Tertiary Hospital in Makurdi, Nigeria. *Journal of Reproductive Health and Contraception*, **3**, Article No. 11. https://doi.org/10.21767/2471-9749.100044

[19] Allagoa, D.O. and Nyengidiki, T.K. (2013) Knowledge, Attitude And Practice of Contraception amongst Antenatal Patients at the University of Port Harcourt Teaching Hospital, Port Harcourt. *The Nigerian Health Journal*, **11**, 89-92.

[20] Eko, J.E., Osonwa, K.O., Osuchukwu, N.C. and Offiong, D.A. (2013) Prevalence of Contraceptive Use among Women of Reproductive Age in Calabar Metropolis, Southern Nigeria. *International Journal of Humanities and Social Science Invention*, **2**, 27-34.

[21] Adeyemi, A.S., Olugbenga-Bello, A.I., Adeoye, O.A., Salawu, M.O., Aderinoye, A.A., *et al.* (2016) Contraceptive Prevalence and Determinants among Women of Reproductive Age Group in Ogbomoso, Oyo State, Nigeria. *Open Access Journal of Contraception*, **7**, 33-41. https://doi.org/10.2147/OAJC.S94826

[22] Nsubuga, H., Sekandi, J.N., Sempeera, H. and Makumbi, F.E. (2015) Contraceptive use, Knowledge, Attitude, Perceptions and Sexual Behavior among Female University Students in Uganda. *Women's Health*, **16**, Article No. 6. https://doi.org/10.1186/s12905-016-0286-6

[23] DeClerque, J., Ong, T.A., Abul-Ata, M., Abul-Ata, M. and Barcelona, D. (1986) Rumor, Misinformation and Oral Contraceptive Use in Egypt. *Social Science & Medicine*, **23**, 83-92. https://doi.org/10.1016/0277-9536(86)90327-8

[24] Rutenberg, N. (1991) Knowledge and Use of Contraception. Institute for Resource Development, Columbia.

[25] Mahmood, N. and Ringheim, K. (1996) Factors Affecting Contraceptive Use in Pakistan. *The Pakistan Development Review*, **35**, 1-22. https://doi.org/10.30541/v35i1pp.1-22

[26] Hussain, N. (2011) Demographic, Socio-Economic and Cultural Factors Affecting Knowledge and Use of Contraception Differentials. *Journal of Community Medicine and Health Education*, **1**, 102. https://doi.org/10.4172/jcmhe.1000102

[27] Bhandari, N., Shrestha, G.K. and Thakuri, P.C. (2013) Study of Factors Affecting Contraceptive Use among Married Women of Reproductive Age. *Journal of College of Medical Sciences-Nepal*, **9**, 24-29. https://doi.org/10.3126/jcmsn.v9i4.10233

[28] Envuladu, E., Agbo, H., Mohammed, A., Chia, L., Kigbu, J. and Zoakah, A. (2012) Utilization of Modern Contraceptives among Female Traders in Jos South LGA of Plateau State, Nigeria. *International Journal of Medicine and Biomedical Research*, **1**, 224-231.

[29] Chikee Aniwada, E., Azuka James, O., Lynda Uchenna, O., Onyebuchi Ekuma, O. and Frances Kelechi, O. (2017) Knowledge, Perception and Misconceptions on Fam-

ily Planning among Women Living in an Urban Slum in Enugu, Enugu State Nigeria. *Asian Journal of Medicine and Health*, **3**, 1-10.

[30] Eniojukan, J.F., Ofulue, I. and Okinedo, P. (2016) Knowledge, Perception and Practice of Contraception among Staff and Students in a University Community in Delta State, Nigeria. *UK Journal of Pharmaceutical and Biosciences*, **4**, 71-81. https://doi.org/10.20510/ukjpb/4/i1/87848

[31] Okanlawon, K., Reeves, M. and Agbaje, O.F. (2010) Contraceptive Use: Knowledge, Perception and Attitudes of Refugee Youths in Oru Refugee Camp, Nigeria. *African Journal of Reproductive Health*, **14**, 17.

[32] National Population Commission (NPC) [Nigeria] and ICF (2013) Nigeria Demographic and Health Survey 2013. National Population Commission (NPC) [Nigeria] and ICF, Abuja, Rockville.

[33] National Population Commission (NPC) [Nigeria] and ICF (2019) Nigeria Demographic and Health Survey 2018. National Population Commission (NPC) [Nigeria] and ICF, Abuja, Rockville.

[34] Ogboghodo, E.O., Adam, V.Y. and Wagbatsoma, V.A. (2017) Prevalence and Determinants of Contraceptive Use among Women of Child-Bearing Age in a Rural Community in Southern Nigeria. *Journal of Community Medicine and Primary Health Care*, **29**, 97-107.

[35] Ankomah, A., Anyanti, J., Adebayo, S. and Giwa, A. (2013) Barriers to Contraceptive Use among Married Young Adults in Nigeria: A Qualitative Study. *International Journal of Tropical Disease and Health*, **3**, 267-282. https://doi.org/10.9734/IJTDH/2013/4573

[36] Muhammad, Z. and Maimuna, D.G. (2014) Contraceptive Trend in a Tertiary Facility in North Western Nigeria: A 10-Year Review. *Nigerian Journal of Basic and Clinical Sciences*, **11**, 99-103. https://doi.org/10.4103/0331-8540.140358 https://www.njbcs.net/text.asp?2014/11/2/99/140358

[37] Tunau, K.A., Singh, S., Panti, A., Nwobodo, E., Hassan, M., Bello, S. and Ibrahim, A. (2019) Contraceptive Use in Sokoto. *Journal of Clinical and Diagnostic Research*, **13**, QC01-QC05. http://www.jcdr.net

[38] Al Kibria, G.M., Hossen, S., Alam Barsha, R.A., Sharmeen, A., Paul, S.K. and Iftekhar Uddin, S.M. (2016) Factors Affecting Contraceptive Use among Married Women of Reproductive Age in Bangladesh. *Journal of Molecular Studies and Medicine Research*, **2**, 70-79.