



(RESEARCH ARTICLE)



## Socio- demographic characteristics and women attitude as determinants to practice modern contraceptives uptake as correlated among women of child bearing age in Jigawa State, Nigeria

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### Abstract

**Background:** Universal contraceptive access is one of the key strategies for achieving sustainable developments in any country. Yet, uptake has remained low in most developing nations like Nigeria. The reasons for low use must be contextually understood to aid effective contraceptive programming (Ajibola et al., n.d.). This study assessed socio-demographic characteristics and women attitude as determinants to practice modern contraceptives uptake as correlated among women of child bearing age in Jigawa state, Nigeria.

**Aim:** This study assessed socio- demographic characteristics and women attitude as determinants to practice modern contraceptives uptake as correlated among women of child bearing age in Jigawa state, Nigeria.

**Methodology:** A cross-sectional descriptive research was conducted on the respondents. The study population comprised all the eligible women of child bearing age within the study area, who were selected and agreed to participate in the study. Sample sizes of Four Hundred and four (404), respondents were recruited using a multistage sampling technique. Data was collected using Questionnaire Data collected was coded, entered, and analyzed using the Statistical Package for the Social Sciences (SPSS) version 22.

**Result:** The relationship between socio-demographic characteristics and respondents' attitude to contraceptive uptake, statistically significant association was found between respondents' attitude to contraceptive uptake and marital status ( $\chi^2=9.1$ ,  $p=0.036$ ), age ( $\chi^2=3.9$ ,  $p=0.041$ ), religion ( $\chi^2=6.3$ ,  $p=0.023$ ), and level of educational ( $\chi^2=8.3$ ,  $p=0.048$ ). Respondents with no formal education were significantly less likely to have used contraception compared to their educated counterparts (AOR=0.414, 95%CI=0.173-0.861). Also, those with less than 29 years of age were significantly less likely to have used contraception than those with 30 years and above age (AOR=0.563, 95%CI=0.331–1.018). Likewise, those with poor knowledge and negative attitude had significantly lesser odds of modern contraceptive use (OR=0.411, 95%CI=1.131-1.857 and OR=0.147, 95%CI=0.151-0.763).

**Conclusions:** The study revealed that significant number of women had poor knowledge and attitude towards FP. Multiple socio-demographic factors contributed to knowledge and attitude of FP. Therefore, the health sectors of the regions and other stakeholders should strengthen the health extension program to disseminate messages related to FP to improve the knowledge and attitude of women.

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**Keywords:** Analysis; Care givers; Hospital; Schizophrenia; Jigawa; Modern contraception

## 1. Introduction

Voluntary control of fertility has become of paramount importance to every facet of modern society particularly due to its ability to slow down population growth and indirectly improve national economic growth. The world has continued to witness exponential growth of its population as it has been projected to reach 9.8 billion people by 2050. Most of these growths have been occurring in the developing countries which have minimal resources to match, thereby perpetrating the circle of poverty in those countries. Among the most populous countries in the world, Nigeria is growing at the fastest rate with a current population of about 200 million people (ranking 7th in the world). Meanwhile, contraception is a key strategy of controlling this upward trend in population growth by helping to prevent unwanted and unplanned pregnancies. Besides this, adequate contraceptive utilization has the potential to reduce the rate of unwanted/unintended pregnancies and unsafe abortion. This is of paramount importance particularly in rural areas where women are mostly vulnerable to adverse pregnancy and delivery outcomes due to poor quality of maternal every year, over 40,000 women in Nigeria die from childbirths and pregnancy related complications. Thus, while Nigeria is responsible for only 2.5% of the world's population, it accounts for 14% of global maternal deaths every year. There has not been significant reduction in MMR in Nigeria considering the National Demographic and Health Survey (NDHS) reports from 2008-2018 (545,576 and 512 deaths per 100,000 live births). This is deviant to SDG 3.1 target of reducing global MMR to as low as 70 deaths per 100,000 live births. Improving contraceptive uptake among women of reproductive age in Nigeria is thus critical for reversing this situation. However, the 2018 NDHS reports that only 12% of Nigerian women currently use a modern form of contraception resulting in high rates of unwanted/unplanned pregnancies, unsafe abortions. In 2012, the rate of unintended pregnancies in Nigeria was estimated at 59/1,000 of women aged 15-49 by Bakole et al. The study also estimated that about 1.25 million induced abortions were recorded within the same year. Studies have revealed variations in the types of contraception preferred by Nigerian women and their determinants. Most of the studies have focused on residents of urban communities with a few of them targeting rural dwellers. Meanwhile, uptake of family planning services has been low for rural dwellers compared to their urban communities possibly due to disparity in their socio-cultural and socioeconomic characteristics. Moreover, there has been rural-urban differential in the demand for modern contraception as revealed by the 2018 NDHS, thus creating conspicuous knowledge gap as to the factors which may be responsible for this observed variation healthcare services available to them (Ajibola et al., n.d.).

The mean age of the respondents was  $28 \pm 6$ . Most (38.8%) of the respondents were 20-29 years of age, 64.2% of them were married and 52.1% had secondary education. Most (60.2%) of the respondents practiced Islamic religion. Most (63.0%) of the respondents had 1-2 children, 26.0% had more than 4 children and the mean number of children was  $1.2 \pm 0.8$ . More than half (55.3%) of the respondents earned less than 30,000.00 Naira (\$81.74) monthly which is the current national minimum wage in Nigeria.

## 2. Socio- demographic characteristics

The total number of women interviewed was 503, and as shown in Table 1, a total of 411(81.7%) were married and others were single, 81(16.1%), divorced, 7(1.4%), and separated, 4(0.8%). The levels of education of the women were no formal education, 22 (4.4%), primary, 84 (16.7%), secondary, 239 (47.5%) and tertiary, 158 (31.4%). As shown 496 (98.6%) respondents had ever heard contraceptive before, while only 7 (1.4%) had not. The common contraceptives ever heard about by the women include male condom, natural methods, pills and injectables, IUCD with 491 (99%), 457 (92.1%), 449 (90.5%), 426 (85.9%) and 275 (55.4%), respectively (Durowade et al., n.d.) The findings that utilization was higher among Christians than those practicing Islam show the effect of religion on contraceptive use. This has been found in similar studies. Utilization was also found to be higher among those with formal education than those without any education. It is higher among those with primary level of education and the self- employed and civil-servants unlike those with no employment. Social class and education were found to correlate positively with contraceptive uptake in similar studies. The level of awareness to contraceptive varies from place to place. Among Nigerian bankers aged 21-45 years, it showed that about a 100% of them are aware of at least one method of contraception. A similar study in Osogbo, Nigeria put the awareness of modern contraceptives to be 90.3% among respondents with a mean age of  $28.6 \pm 6.65$  years. A study among Ethiopian adults showed a high knowledge of contraceptives among respondents. Studies in Africa identified barriers like the fear of side-effects (44.0%), ignorance (32.0%), misinformation (25.1%), superstition (22.0%) and culture (20.3%) (Durowade et al., n.d.). As shown in 346 (68.8%) women had ever used one form of contraceptive while 157 (31.2%) had never used any form of family planning. Duration of use among those who had used contraceptives was less than 1 year, 82 (23.7%); 1-2 years, 124 (35.8%), 3-5 years, 87 (25.2%) and above 5 years, 53 (15.3%). Their reasons for using contraceptives were prevention of unwanted pregnancy, 276 (79.8%), suitability

and reliability of methods, 192 (55.5%), accessibility, 170 (49.1%), affordability, 106(30.6%) and little or no side effect, 63 (18.2%); (Durowade et al., n.d.).

The main determinants of contraceptive uptake were respondents' educational status (AOR=0.525, 95%CI=0.284-0.972), contraceptive knowledge (OR=0.512, 95%CI=1.242-1.968) and attitude (OR=0.512, 95%CI=1.242- 1.968). Fear of perceived side effects (45.2%), low pregnancy risk perception (35.7%) and spousal refusal (12.5%) were the main reasons for non-contraceptive use among non-users (Ajibola et al., n.d.).

Respondents' educational status, contraceptive knowledge and attitude were the main variables that were significantly associated with contraceptive uptake in the current study. A similar study conducted by Kasa et al., among women in resource limited area of Ethiopia corroborates our findings. Also, findings from the study conducted by Mitkari et al., as well as that conducted by Adeyemi et al., are in keeping with our results. Hence, there is a need to improve contraceptive literacy in rural communities of Nigeria. This will involve an increased and sustained political will by the Nigerian government and its partner agencies to invest more on family planning education programmes to improve the knowledge-base of rural women regarding contraception. Such programmes should also be designed using all media of communication, all-inclusive and non-discriminative strategies- to reach the underserved women and using the local languages of the rural dwellers. As revealed in the current study, fear of perceived side effects, spousal refusal and low pregnancy risk perception were the main barriers to contraceptive use among the non-users in the study population. These findings are in congruence with the reports from previous studies. Contraceptive educational programme should equally target men in the rural communities for grater acceptability. Moreover, contraceptive messages will be more impactful in removing myths and misconceptions about pregnancies and family planning use if it's firmly integrated in the antenatal care services. This study may not be totally free from social desirability bias since most of the respondents knew the interviewers were medical students. Answers might have been given to satisfy the desire of the students. However, this bias was minimized by carefully explaining the objectives of the study to the respondents and by letting them know that their honest responses to questions were necessary for actualization of the aim of the study. In conclusion, this study reveals a high contraceptive awareness level but low knowledge, attitude and practice. The main determinants of contraceptive uptake were knowledge, attitude and respondents' educational status. There is a need for a paradigm shift in family planning programming and delivery to rural Nigerians in order to attain the reproductive health target of SDG (Ajibola et al., n.d.).

The age of respondents ranged from 20 to 85 years with a mean age of 42 years and standard deviation of 11.9 years. The age group 30 – 39 years constitutes about 35% of respondents, while 80% of respondents were between 30 and 59 years old. About 12.5% (58) of the population have no formal education, 15.5% (72) have tertiary education and others have either have either Primary or secondary education as their highest educational attainment. Ninety-four percent of respondents were of the Yoruba ethnic group, nearly two-thirds of the respondents were Christians and about one-third being Muslims. Most of the respondents (35.8%) were artisans in different trades, followed closely by farmers (24.1%). 80% (372) of respondents practice monogamy while about 20% (92) practice polygamous marriage (Fajobi et al., 2021).

### **2.1. Association between Discussing Family Planning with Spouse (Wife) and Use of Contraceptives by Man or Spouse**

Fifty-nine percent (276) of men have discussed family planning with their wives, while 41% (188) have never opened or had such discussions. About 26% of interviewed men have ever used a male contraceptive device, while about half of this group (12.5%) was current users. Similarly, only 32% of the men reported that their wives had ever used a modern contraceptive device while 26% reported wives as current users. A total 36% (102) of men who had ever discussed about family planning with their wives have used contraception, while only 10% (20) of those who never had such discussions have used contraception. This relationship was found to be statistically significant. ( $\chi^2=40$ ,  $p<0.0001$ ). Similarly, 52% (144) of men who had ever discussed about family planning with their wives have wives who have ever used contraception, only six (3.2%) of those who have never had such discussions have wives who have ever used contraception. The relationship was also found to be statistically significant. ( $\chi^2=123$ ,  $p<0.0001$ ).

### **2.2. Association between Socio-demographic Characteristics and Use of Contraceptives**

A higher percentage of men who are less than 50 years (31.9%) are more likely to have ever used modern contraceptive method compared to those who are older (12.1%), and this association was found to be statistically significant. ( $\chi^2=19.1$ ,  $P < 0.0001$ ) Men with at least secondary education or have a good knowledge of contraception had a statistically significant higher use of modern contraception than those with less than secondary education or those who have poor knowledge. Religion and occupation were not significantly associated with use of modern contraception among men (Fajobi et al., 2021).

This study showed that education was significantly associated with men's overall knowledge, attitude and use of modern contraception, thereby improving their roles in family planning. Men with secondary or tertiary education are more likely to participate in family planning, or positively influence their spouses towards better uptake of modern contraception. This finding was similar to reports from other studies within Nigeria and Africa, but different from a study from Ibadan, Nigeria which reported primary education as significant predictor of use of contraceptive. This might be due to the presence of many donor-funded reproductive health programmes in the state which might have targeted and changed the behaviour of the least educated people in the community (Fajobi et al., 2021). 55% and 48.5% of the study participants had poor knowledge and perception about family planning services respectively. At bivariate level, there were statistically significant associations between age ( $p = 0.046$ ), number of children ( $p < 0.001$ ), level of education ( $p = 0.023$ ), and the utilization of FP services by the respondent (Article, 2021).

Since decision-making power still resides with men, creating an environment in which both sexes can seek services and encouraging men to discuss FP with their wives will go a long way in promoting service utilization (Access, n.d.).

The mean (SD) age of the respondents was  $39.7 \pm 9.2$  years and 39.3% belonged to the age group 40–49 years. Majority of the study participants were married (95.9%), and lived in monogamous family settings (78.3%), with most of them 311, (71.8%) being of Yoruba ethnic descent. In this study, 61% of respondents had ever used any family planning methods while 39% had never used any of the available methods. Similarly, 62.8% of their spouses had ever used any family planning methods, while 37.2% had never used any of the FP methods (Article, 2021).

Only 309 questionnaires were finally analyzed. Mean age of respondents was  $32.8 \pm 9.6$  years. Majority (78%) were Muslim, married and in monogamous union (72.2%). Knowledge of modern FP was almost universal 97.7% even though knowledge of two or more methods was 55.3%. Mean number of contraceptives known by respondents was 2. About 42.7% of respondents have ever used any contraceptive method. The Contraceptive Prevalence Rate (CPR) was 15.2% and the preferred FP choice among respondents was the injectable contraceptives (5.2%). Sources of information on FP were Nurse 42.1% and relatives/ friends 19.7%. Significant determinants of FP current use among the respondents include the age, education, occupation, religion and choice of the respondents ( $P < 0.05$ ) (Zaria, 2015).

Evidence from previous studies also reveals that dynamics of spousal communication have a positive effect on contraceptive behavior; thus, these results are in line with the findings of the current study. Spousal discussion boosts modern FP use and consequently reduces fertility and maternal mortality rate (Shah & Lee, 2021).

The mean age  $\pm$  SD was  $29.76 \pm 6.67$ , while the mean number of their offspring was  $4.06 \pm 2.08$ . The intrauterine contraceptive device was the most frequently used method followed by oral contraceptive pills, while the safe-period method was the least frequently used. More than 50% of the females obtained their contraceptives from public health centers and/or hospitals. The mean number of contraception methods known by the females was  $2.15 \pm 1.07$ . Safety was the most indicated criterion for choosing the preferred method. Out of all the respondents, 86.9% indicated that they experience adverse effects from using contraceptive methods, in which a higher rate was for oral pills (31.1%), intrauterine contraceptive device (21.3%), or from both methods (18.4%) (Aldabbagh & Al-qazaz, 2020). Multiple socio-demographic factors contributed to knowledge and attitude of FP. Therefore, the health sectors of the regions and other stakeholders should strengthen the health extension program to disseminate messages related to FP to improve the knowledge and attitude of women. In total, 2891 participants were interviewed with a response rate of 98.7%. Region-wise, 643 (22.2%), 794 (27.5%), 752 (26%), and 702 (24.3%) of the respondents were from Afar, BG, Gambela, and Somali regions, respectively. The mean age of participants was  $26.8 (\pm 7.5 \text{ SD})$  years. Nearly three-fourth (73.8%) of the participants were rural residents. More than half, 1525 (52.7%), had no formal education, and regarding partner education, 1150 (50.5%) had no formal education; 2211 (76.5%) participants were married/cohabited. More than half, 1713 (59.3%), of participants were Muslim. The mean family size was 6 persons ( $\pm 2.9 \text{ SD}$ ); 41.8% with a family size of 3–6, and 36.8% with  $\geq 7$ . Concerning occupation, 2038 (70.5%) of them were engaged in labor works. More than half (58.5%) of respondents had at least one communication media (radio or TV or cell phone) in their homes. The majority of the women (85.6%) had experienced sexual intercourse with a mean age of  $17.1 (\pm 3.1 \text{ SD})$  years at the time of first sexual intercourse. More than three-quarter of participants (76.5%) had a history of pregnancy with 296 (13.4%) ever undergoing an abortion and 120 (5.43%) experiencing a stillbirth. For 1672 (75.6%) of the respondents, their last pregnancy was wanted (Bekele et al., 2020). The average number of pregnancies and live children were  $4.2 (\pm 2.8 \text{ SD})$  and  $3.22 (\pm 2.42 \text{ SD})$ , respectively. In addition, 2003 (69.3%) of the women reported wanting to have additional children. The average ideal number of children was reported at  $7.07 (\pm 4.14 \text{ SD})$ .

Socio-demographic characteristics of participants the response rate in this study was 97.9%. Among 381 participants included, 185 (49%) were from rural villages. About 47% of the participants were illiterate and 52% were completed primary education. The monthly household income of the majority (42.5%) of the participants was between 1000 and

3000 Ethiopian birr. Regarding the perceived side effects of using family planning, 13.1%, 24.9%, 9.7% and 52.2% of participants were responded heavy bleeding, irregular bleeding, an absence of menstrual cycle and abdominal cramp respectively were mentioned as a side effect. Among those who have children; 24.6% gave their last birth at home and 75.5% gave their last birth at the health institution. Regarding the overall knowledge of study participants, 161 (42.3%) had good knowledge towards family planning and the rest 220 (57.7%) had poor knowledge (Kasa et al., 2018).

### 3. Material and methods

#### 3.1. Research design

Cross-sectional descriptive research was conducted

#### 3.2. Research setting

Jigawa state

#### 3.3. Study Population

Mothers residing in Jigawa state during the period

#### 3.4. Sampling technique

A multistage sampling technique was used to select the study subjects from Twenty seven LGAs of Jigawa state and Four Hundred and four respondent were recruited

#### 3.5. Tool

Structured self-prepared questionnaire was used

#### 3.6. Ethical considerations

The provisions of the HELSINKI declaration were respected (Shehu,*et al.*, 2019).

### 4. Results

The result depicts that most (27.9%) of the respondents belong to the age group 35-49 years. The mean  $\pm$  SD age of the respondents was  $22.01 \pm 8.124$  years. Majority (81.3%) of the respondents were Muslim. Most (72.7%) of the respondents were literate. Regarding the occupation, majority (80.3%) of the respondents were self-employed. Two-third (64.1%) of the respondents was from nuclear family. Most (64.6%) of the respondents had a family income of less than ₦ 30,000 per month. Most (64.6%) of the respondents were married for more than five years and few (11.0%) were married for less than 2 years. About (58.5%) had parity less than 3. Regarding age of the last child, (55.9%) of the respondents had children of less than 5 years. Most (59.6%) of the respondents had age gap of the last two children in the range of 2-4 years. Only few (6.1%) respondents had a history of abortion. Regarding the distance, majority (77.1%) had walking distance of less than 30 minutes from their home to the nearest health center.

**Table 1** Socio-demographic Characteristics of Respondents (n=376)

Characteristics	Category	Frequency	Percentages (%)
Age in years	15-19	53	14.1
	20-24	62	16.5
	25-29	80	21.3
	30-34	76	20.2
	35-49	105	27.9
Marital Status	Single	62	16.5
	Married	305	81.1
	Divorced/ Separated	5	1.3

	Widowed	4	1.1
Religion	Muslim	306	81.3
	Christian	70	18.7
Level of education	Non formal education	103	27.3
	Primary	129	34.3
	Secondary	99	26.3
	Higher	45	12
Occupation	Privately employed	29	7.7
	Civil servant	45	12
	Self-employed	302	80.3
Type of family	Nuclear	241	64.1
	Joint	135	35.9
Income of the family/Month	<N30,000	243	64.6
	≥N30,000	133	35.4
Parity	Nulliparous	52	13.8
	<3	220	58.5
	≥3	104	27.7
Age of the last child	<5 years	181	55.9
	≥5 years	143	44.1
Gap between 2 last children	1-2 years	29	8.9
	2-4 years	193	59.6
	4 or more	102	31.5
History of abortion	Yes	23	6.1
	No	353	93.9
Distance of health care centre	< 30 minutes	290	77.1
	≥ 30 minutes	86	22.9

**Table 2** Contraceptive Practice among the Respondents (n=376)

Practice of Contraceptive	Frequency	Percent (%)
<b>Ever practiced</b>		
Yes	266	70.7
No	110	29.3
<b>Currently using contraceptive</b>		
Yes	243	64.6
No	133	35.4
<b>Methods used (n=243)</b>		
Pills	34	14.0

IUCD	15	6.2
Inj. Depo-Provera	86	35.4
Condom	34	14.0
Norplant	11	4.5
Female sterilization	45	18.5
Male sterilization	5	2.1
Abstinence	2	0.8
Withdrawal	11	4.5
<b>Side Effects*</b>		
No Side effects	198	81.5
Nausea, vomiting	11	10.6
Spotting between the periods	13	12.5
Amenorrhea	14	13.5
Menstrual irregularities	25	24.0
Weight gain	25	24.0
Heavy bleeding	16	15.4

\*Multiple responses recorded thus; percentages represent proportion of the responses obtained

The result shows that 70.7% of the respondents had ever practiced contraception whereas only (64.6%) of the respondents were currently practicing it. Majority (35.4%) of the respondents were using Injection Depo-Provera followed by female sterilization (18.5%) and pills and condom each recorded 14.0%. Abstinence was found to be least (0.8%) practiced. Most of the respondents (81.5%) experienced no side effects. Only (18.5%) of the respondents experienced side effects with the use of contraceptives which was later calculated as proportion percentage. The commonest (24.0%) side effects experienced were weight gain and menstrual irregularities each followed by heavy bleeding (15.4%) and amenorrhea (13.5%). Few respondents (10.6%) reported nausea and vomiting as side effects of contraceptives.

**Table 3** Relationship between socio-demographic characteristics and respondents' attitude to contraceptive uptake (n = 376)

Variable	Positive attitude (%) n = 202	Negative attitude (%) n = 174	Total	$\chi^2$	p - value
<b>Age</b>					
15 – 19	28 (52.8)	25 (47.2)	53(100.0)	3.9	0.041*
20 – 24	33 (53.2)	29 (46.8)	62(100.0)		
25 – 29	48 (60.0)	32 (40.0)	80(100.0)		
30 – 34	42 (55.3)	34 (44.7)	76(100.0)		
35 – 49	51 (48.6)	54 (51.4)	105(100.0)		
<b>Marital Status</b>					
Single	32 (51.6)	30 (48.4)	62(100.0)	9.1	0.036*
Married	167 (54.8)	138 (45.2)	305(100.0)		
Divorced/ Separated	3 (60.0)	2 (40.0)	5(100.0)		
Widowed	0 (0.0)	4 (100.0)	4(100.0)		
<b>Religion</b>					

Islam	193 (78.8)	113 (21.2)	306(100.0)	6.3	0.023*
Christianity	9 (71.4)	61 (28.6)	70(100.0)		
<b>Level of Education</b>					
No formal education	98 (95.1)	05 (4.9)	103(100.0)	8.3	0.048*
Primary	46 (35.7)	83 (64.3)	129(100.0)		
Secondary	34 (34.3)	65 (65.7)	99(100.0)		
Tertiary	24 (53.3)	21 (46.7)	45(100.0)		
<b>Occupation</b>					
Privately employed	19 (65.5)	10 (34.5)	29(100.0)	2.4	0.497
Self employed	152 (50.3)	150 (49.7)	302(100.0)		
Civil servant	31 (68.9)	14 (31.1)	45(100.0)		

\*Statistically significant at  $p < 0.05$ 

Table shows the relationship between socio-demographic characteristics and respondents' attitude to contraceptive uptake, statistically significant association was found between respondents' attitude to contraceptive uptake and marital status ( $\chi^2=9.1$ ,  $p=0.036$ ), age ( $\chi^2=3.9$ ,  $p=0.041$ ), religion ( $\chi^2=6.3$ ,  $p=0.023$ ), and level of educational ( $\chi^2=8.3$ ,  $p=0.048$ ).

Respondents with no formal education were significantly less likely to have used contraception compared to their educated counterparts (AOR=0.414, 95%CI=0.173-0.861). Also, those with less than 29 years of age were significantly less likely to have used contraception than those with 30 years and above age (AOR=0.563, 95%CI=0.331-1.018). Likewise, those with poor knowledge and negative attitude had significantly lesser odds of modern contraceptive use (OR=0.411, 95%CI=1.131-1.857 and OR=0.147, 95%CI=0.151-0.763) (table 4).

**Table 4** Determinants of Current Contraceptive Use among the Respondents (n = 376)

Variable	Currently on Family planning		Total	$\chi^2$	P value	AOR	95%CI
	Yes (%) n = 243	No (%) n = 133					
<b>Age (Years)</b>							
≤ 29	173(29.4)	22(70.6)	195	3.361	0.027*	0.563	0.331 -1.018
≥ 30	70(38.2)	111(61.8)	181				
<b>Parity</b>							
0-3	204(37.5)	68(62.5)	272	18.057	0.066	1.411	0.561-3.410
>3	39(8.1%)	65(91.9)	104				
<b>Marital status</b>							
Married	232(76.1)	73 (23.9)	305	3.617	0.057	0.661	0.316 -1.105
Others	11 (15.5)	60(84.5)	71				
<b>Level of education</b>							
Non formal education	52(22.1)	51(77.9)	103	4.306	0.038*	0.414	0.173-0.861
Formal education	191(35.0)	82(65.0)	273				
<b>Monthly Income</b>							
≤30,000.00	204(84.0)	39 (16.0)	243	0.014	0.905	0.864	0.533 -1.368
> 31,000.00	39 (29.3)	94(70.7)	133				



Knowledge on contraception							
Poor	30(25.6)	87(74.4)	117	7.032	0.001*	0.411	1.131-1.857
Good	102(39.5)	157(60.5)	259				
Attitude to contraception							
Negative	26(15.0)	148(85.0)	174	3.88	0.023*	0.147	0.151-0.763
Positive	106(53.0)	96(47.0)	202				

\*Statistically significant at  $p < 0.05$ , AOR = adjusted odd ratio, CI = Confidence interval

## 5. Discussion

### 5.1. Socio-Demographic data

The result depicts that most (27.9%) of the respondents belong to the age group 35-49 years. The mean  $\pm$  SD age of the respondents was  $22.01 \pm 8.124$  years. This could be factual as most women need to rest after they had put to bed to many children, thus, most of the respondents were older women. This is similar to Nigeria Demographic and Health Survey [NDHS], (2018) report the contraceptive prevalence rate among married women varies with age, rising from 3% among women aged 15 to 19 years to a peak of 23% among women aged 35 to 39 years before declining to 13% among women aged 45 to 49 years. However, Ozumba, Obi and Ijioma (2009) in south-eastern part of Nigeria documented that the mean age of the respondents was 21.3 years. In Kano, Gajida, Takai, Haruna and Bako (2019) identified contrasting finding in which the mean age of the respondents was  $29.5 \pm 8.0$  years with majority 44 (24.0%) were aged 25–29 years. Majority (81.3%) of the respondents were Muslim. This could be due to the fact that the research setting is part of the North-eastern Nigeria where majority of the residence practice Islam as a religion. Religious practices in some parts of the world deter women from using contraceptives, in Pakistan; it was found that 65% of women believed that contraception is prohibited in religion whereas 35% believed that contraception is permitted in religion in view of providing better resources for the child (Naqvi, Hashim, Zareen and Fatima, 2011). Most (72.7%) of the respondents were literate. This finding may be due to the fact that girls-child education was given due consideration in north-eastern part of Nigeria although, north in general consider women education as least priority due to socio-cultural influence.

Regarding the occupation, majority (80.3%) of the respondents were self-employed. This is due to the fact that most women in the area were either petty traders or farmers as the area relied much in agricultural production. Study from southwestern Nigeria by Ajayi, Adeniyi, and Akpan, (2018) showed contrasting result in which most of the respondents were employed. Two-third (64.1%) of the respondents was from nuclear family. Most (64.6%) of the respondents had a family income of less than ₦30,000 per month and married (64.6%) and (11.0%) for more than five years and for less than 2 years respectively. This is attributed to the fact that most of the women had formal education and by implication will be self-employed or government employed. Besides, many of the respondents were married full time housewives who in the communities can engage more in petty trading or have little source of personal income.

About (58.5%) had parity less than 3 with the age of the last child, (55.9%) being less than 5 years old. This is due to the fact that majority of the respondents were married for more than five years as such mothers could give birth to at least two children. Regarding Most (59.6%) of the respondents had age gap of the last two children in the range of 2-4 years. Only few (6.1%) respondents had a history of abortion. It is evident that most of the women with 4 years child birth spacing were on contraceptive although there are likely chances some were not on contraceptives. Regarding the distance, majority (77.1%) had walking distance of less than 30 minutes from their home to the nearest health center. Such distance from house to health facility could encourage woman to seek for medical assistance as quick as possible as it is vital in controlling the little available resources at their disposal and improving the health of the women as well as the last-born child.

Statistically significant association was found between respondents' attitude to contraceptive uptake and marital status ( $\chi^2=9.1$ ,  $p=0.036$ ), age ( $\chi^2=3.9$ ,  $p=0.041$ ), religion ( $\chi^2=6.3$ ,  $p=0.023$ ), and level of educational ( $\chi^2=8.3$ ,  $p=0.048$ ). Similar finding by Durowade *et al.*, (2017) in a study conducted in Ekiti, revealed that respondents' marital status ( $p=0.028$ ), religion ( $p=0.043$ ) and level of education ( $p=0.041$ ) were found to be significantly associated with uptake of contraception. This could be factual because marital status could significantly affect the family attitude toward contraceptive uptake, this is may be due to poor relationship in marriage, financial issues, previous breakage and divorce among others. However, literacy level could also influence family members towards contraception uptake as the family will be aware of benefits of family that could be affordable to them. Dissimilar findings were reported by

Nansseu *et al.*, (2015) in their study from the Mbouda Health District, Cameroon, that there was no significant relationship between women practicing contraception or not with regard to their level of education, as well as with age, marital status and occupation. The dissimilarities between the two studies could be due to regional, cultural and religious differences in the study settings as various studies opined (Blackstone *et al.*, 2017; Ajayi *et al.*, 2016; Sedgh & Hussain, 2014; Hindinet *et al.*, 2014; Lakewet *et al.*, 2013; Ankomah *et al.*, 2013 and Naqvi *et al.*, 2011) thus, determine the person's attitude toward the use of contraceptives and the ability to understand the mechanism of action and effective use of the methods (Aryeetey, Kotoh and Hindin, 2010). MNCH Program. (2011) added that traditional beliefs favoring high fertility, religious barriers, and fear of side effect and lack of male involvement have contributed significantly in weakening family planning interventions.

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## 6. Conclusion

The study revealed that significant number of women had poor knowledge and attitude towards FP. Multiple socio-demographic factors contributed to knowledge and attitude of FP. Therefore, the health sectors of the regions and other stakeholders should strengthen the health extension program to disseminate messages related to FP to improve the knowledge and attitude of women.

### *Recommendations*

Based on the findings of the study, the following were recommended:

- There is wide knowledge practice gap in this study, which requires improved female education strategies and better access to services to solve these problems. The use of communication media suitable for audience and adequate message is important in conducting effective contraceptive awareness activities.
- There is need for the health workers to promote information and education on contraception among male partners so as to encourage women in clearing the misconceptions that hinders practice. Efforts should be made to educate the public about the safety and convenience of modern, long term, reversible methods of contraception among both healthcare professionals and the public

### *Limitations*

- Study participant might decide to withdraw from the study at any time in the course of this research;
- Time, financial and logistic constraints.

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## Compliance with ethical standards

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### *Disclosure of conflict of interest*

As the Author; no any area of conflict of interest in the manuscript.

### *Statement of ethical approval*

Ethical clearance was obtained from the ethical committee of Jigawa State Ministry of Health, before commencement of the study. The provisions of the HELSINKI declaration will be respected.

### *Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

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**References**

- [1] Access, O. (n.d.). We are IntechOpen , the world ' s leading publisher of Open Access books Built by scientists , for scientists TOP 1 %.
- [2] Ajibola, I., Idowu, A., Ukandu, G. C., Mattu, J., Abiodun, A., Adegboye, P., Chibu-jonah, C., Siakpere, E., Ishola, E., Adeyeye, T., & Alabi, S. (n.d.). Modern Contraception : Uptake and Correlates among Women of Reproductive Age-Group in a Rural Community of Osun State , Nigeria.
- [3] Aldabbagh, R. O., & Al-qazaz, H. K. (2020). Knowledge and Practice of Contraception Use Among Females of Child-Bearing Age in Mosul , Iraq. 107–113.
- [4] Article, O. (2021). Male participation in family planning : An untapped potential for increasing utilization of family planning services in Ondo ,
- [5] Bekele, D., Surur, F., Nigatu, B., Teklu, A., Getinet, T., Kassa, M., Gebremedhin, M., Gebremichael, B., & Abesha, Y. (2020). Knowledge and Attitude Towards Family Planning Among Women of Reproductive Age in Emerging Regions of Ethiopia. 1463–1474.
- [6] Durowade, K. A., Omokanye, L. O., Elegbede, O. E., Olomofe, C. O., Ajiboye, A. D., Makinde, A., & Sanni, T. A. (n.d.). Barriers to Contraceptive Uptake among Women of Reproductive Age in a Semi-Urban Community of Ekiti State , Southwest Nigeria.
- [7] Fajobi, O., Fajobi, D. A., Olugbade, O. T., & Olowookere, S. A. (2021). The Factor ( s ) Influencing Male Involvement in Family Planning – Findings from a Rural Community in South West , Nigeria. 7(3), 94–101. <https://doi.org/10.11648/j.cajph.20210703.12>
- [8] Kasa, A. S., Tarekegn, M., & Embiale, N. (2018). Knowledge , attitude and practice towards family planning among reproductive age women in a resource limited settings of Northwest Ethiopia. BMC Research Notes, 7–12. <https://doi.org/10.1186/s13104-018-3689-7>
- [9] Leng, A., Xu, C., Nicholas, S., Nicholas, J., & Wang, J. (2019). Quality of life in caregivers of a family member with serious mental illness: Evidence from China. Archives of Psychiatric Nursing, 33(1), 23–29. <https://doi.org/10.1016/j.apnu.2018.08.010>
- [10] Shah, A. M., & Lee, K. (2021). Exploring Readiness for Birth Control in Improving Women Health Status : Factors Influencing the Adoption of Modern Contraceptives Methods for Family Planning Practices.
- [11] Shehu, A., Gommaa, H., Abdelateef, S., Anyebe, E. E., Argungun, Z. M., Usman, U. S., Sa, A., Mustapha, U., & Balarabe, F. (2023). Knowledge and practice of Medication Adherence among patients with Schizophrenia attending Hospitals in North-western Nigeria. 7–17.
- [12] Zaria, G. (2015). Poster Number : M229 Abstract #: 2447 Knowledge , Determinants and Use of Modern Contraceptives among Married Women in Sabon. 44, 135–136.