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Research Paper

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CONSTRAINTS TO ADOPTION OF FAMILY PLANNING PROGRAMMES BY RURAL FISHERFOLKS FOR INCREASED FISH PRODUCTION IN ANDONI LOCAL GOVERNMENT AREA OF RIVERS STATE, NIGERIA

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ABSTRACT

The study investigated the constraints to adoption of family planning programmes by rural fisherfolks for increased fish production in Andoni Local Government Area in River State, Nigeria. Multi-stage sampling procedure was used to select 100 fisherfolks from four fishing communities (Oyorokoto, Ama Tamida, Ajakajak and Mbalaka) in the study area. Questionnaire and interview schedule were used to collect data from the respondents. Data collected were presented and analyzed using descriptive statistics such as: mean, frequency, percentage and linear regression. The results showed that 60% of the fisherfolks were female while 40% were male and they were aware of family planning. Majority (79.0%) of the respondent got information on family planning from health personnel/community health extension workers and 73.0% from their fellow fisherfolks. Condoms (85%) and Fertility awareness (cycle Beads, safe periods, calendar method) (76%) were available to them and the fisherfolks did adopt and the family planning programmes. The level of adoption of the outlined family planning programmes was high and respondents agreed that family planning adoption has influenced their standard of living ($\bar{x}$ = 2.88, SD = 1.70) and increased participation in fishing and fish production output ($\bar{x}$ = 2.69, SD = 1.64). The main factors that limits adoption of family planning programmes are lack of awareness ($\bar{x}$ = 3.53, SD = 1.88) and cost of family planning programmes ($\bar{x}$ = 3.51, SD = 1.87). Based on the findings of the study, it was recommended that efforts should be intensified by relevant bodies to create more awareness on modern family planning programmes in rural communities in the study area as this will help to ensure good knowledge and foster better understanding for more practice and adoption among fisherfolks.

Keywords: Constraints, Adoption of Family Planning Programmes, Rural Fisherfolks, Increased Fish Production

INTRODUCTION

According to Federal Government of Nigeria (FGN,2014), family planning continues to offer a host of additional health, social and economic benefits; it can help slow the spread of HIV, promote gender equality, reduce poverty, accelerate socioeconomic development, and protect the environment. Family planning has so many benefits both to the mother, children, father and the family, which ranges from enabling the mother regain her health after

delivery, children being able to get all the attention, security, love and care they deserve, and for the fathers enabling them to give their children required basic needs of life (food, shelter, education and better future). The mothers will benefit from family planning by enjoying a healthier motherhood and produce healthier children (Duru *et al*., 2018). This is to say that the whole essence of family planning is to put the population under control and enhance living condition. In olden days, families' need for power and prosperity necessitated large population which makes them to engage in polygamy, but the desirability of large family population these days is in doubt especially in developing countries like Nigeria and in the face of the persistent economic crisis across the globe.

Access to safe and voluntary family planning is a human right and that family planning is central to gender equality and women's empowerment, it is key factor in reducing poverty, Yet in developing regions, some 214 million women who want to avoid pregnancy are not using safe and effective family planning methods, for reasons ranging from lack of access to information or services, religious belief, lack of support from their partners or communities (Chukwuji, *et al* 2018). This threatens their ability to build a better future for themselves, their families, and their communities. Having many children that one cannot care for is really a burden that tends to weigh down the financial resources which results in poverty, low standard of living and economic hardship, criminal activities and juvenile delinquencies. Despite the numerous measures put in place by all tiers of government to sensitize citizens on the need for family planning, most Nigerian population still do not adopt it (Chukwuji, *et al* 2018). This may be because of lack of knowledge about the advantages that are attached to family planning or due to other factors such as religion, culture, finance, Level of understanding. Other reasons the policy targets are not being met include poor diffusion of information, weak programming, inadequate resources, weak institutional framework and a lack of strategic planning. This might have contributed to the structural and social-cultural factors that influence the family planning practices of households in rural communities of various Nigerian States, of which Rivers State is one. Institution and good funding have created another barrier as well as unemployment to the involvement of fishing households in family planning in some selected communities in Andoni Local Government Area.

Around the world, more women are using contraception, but in developing countries like Nigeria, half the 75% larger low-income and lower-middle income countries (Akinwalere *et al*, 2015) (mainly Africa), contraceptive practices remain low while fertility, population growth and unmet need for family planning are high. Although family planning methods and services are mostly directed at women (Albert and Nnecosy, 2014) in some cases men are usually the ones who decide on the size of the family and whether their spouse uses a family planning method or not (Adelekan, Omoregie and Edoni, 2014). The attitudes of women toward the use of modern family planning methods are strongly related to their husbands' level of knowledge, perceptions and family planning method use (Albert and Nnecosy, 2014). Many surveys done on family planning had married women as their respondents and information about men were obtained from their wives (Aransiola, Akinyemi and Fatusi, 2014). Unfortunately, such information may not give the true picture and as such, no significant achievement has been made in improving the contraceptive

prevalence rate (CPR) by family planning programs founded on such information (Aransiola, Akinyemi and Fatusi, 2014).

Objective of the Study

The specific objectives of the study were to:

i. describes the socio-economic characteristics of fisherfolks in the study area;
ii. identify the types of family planning programmes available;
iii. determine level of adoption of the available family planning programmes by fisherfolks;
iv. examine the perceived influence of adoption of family planning by fisherfolks on fish production; and
vi. ascertain the factors limiting fisherfolks from adopting family planning practices in the study area.

Research Hypotheses

$H0_1$: The socio-economic characteristics of the respondent do not significantly affect the adoption of family planning programmes by fisherfolks in the study area.

MATERIALS AND METHODS

The area of study was Andoni Local Government Area (LGA), Rivers State, Nigeria. Andoni LGA lies between latitude 04° 26′ 40″ N-04° 35′ 00″ N and longitude 07°1 6′30″ E-07°33′00′E. It has a total land mass of 342 square kilometres with a population 211,009 peoples (National Bureau of Statistics, 2006). The elevation varies from 0.0m along the rivers to 23.3m in the upland area. The LGA is bounded by Gokana and Khana LGAs in the North, Opobo/ Nkoro LGA in the East, Bonny LGA in the West, and South Atlantic Ocean occupied the whole Southern part of the area. Being a coastal tribe of Niger Delta region, the people are predominantly fishermen. The land mass is made-up of tributaries of Rivers, Creeks and Lagoons of the ocean which serves as fishing ground for the people to earn a living (Mba *et al.*, 2021). Andoni Local Government Area (LGA) is divided majorly into four clans namely, Ngo, Unyeada, Asarama and Ataba. Ngo clan comprise the following communities; Ikuru town, Agwutobolo, Ayamboko, Okoroboile town, Okokiri, Ebukuma, Okoloile, Egwede town, Iwoma, illotombi, Ama-Ekut, Asukoyet, AsukAma, Ama-Sunday, Ama Augustu, Muma and Oyorokoto. Unyeada clan consist the following communities; Egedem, Dimama, Inyongchicha, Amapaul, Polokiri, Ama tamida, Amaekpu, Isiodum town, Inyongoron town and UnyenGala. Asarama clan comprise the following communities; Asaramija, Nkako, Amanjijor, Olukama, Ajakajak town, Samangatown, Ibotirem town, Otuafu, Otunria, Oronijah, Udungama and Demacity. while Ataba clan comprise of the following communities; Egweite, Egweaja, Egwatuk, Egweosot, Egweaba, Egwenkan, Amanku, Iyoba, Ise-ita, Agbakoroma, Asaramtoru, Otuafa, Nkanlek, Owokiri, Agbanbalaka, Sobokiri, and Mbalaka. Fishing is the main occupation of the people; this is owing to the fact that a significant part of the towns and villages are situated on islands. The rivers network support different species of aquatic fish especially the salt water species with most fishing activities being carried out in the marine and brackish water. The following fish types are found within mangrove of Niger Delta; mullets, Grunter, Snappers, Catfishes, Tilapia, Threadfins, Croakers, and shellfish such as Crustaceans, Molluscs (Isebor *et al,* 2003).

The study utilized multi-stage sampling procedure. In the first stage, from each of the four clans in the LGA, one community which has primary health center and fisherfolks' association was selected which include; Oyorokoto from Ngo clan, Ama Tamida from Unyeada clan, Ajakajak town

from Asarama clan and Mbalaka from Ataba clan. The second stage involved the use of Taro Yamanes sampling derivation to estimate the sample size from the larger sample population. The third stage involved the use of Bowleys proportional allocation to select samples from selected fisher folks' associations. This is to give equal representation to each of the fish farmers association. Simple random sampling was used to select 100 respondents. Interview schedule and structured questionnaire was administered by the researcher to the respondents in the various communities selected for the study. The data collected from the respondents were Apresented using descriptive statistics such as frequency, percentage and mean scores. A 2-point, 3-point and 4-point type likert rating scales were used to determine the level of adoption, perceived influence of adoption and factors limiting fisherfolks from adopting family planning practices. The Hypothesis was tested using the linear regression. The regression model was employed in the analysis is specified as follows: Regression model: $Y = b_0+b_1x_1+b_2x_2 +...b_nx$

Where;

Y = Constraints (dependent variable)

B = Coefficients of Y

X_1 = sex; X_2 = Marital Status; X_3 = Age; X_4 = Educational level; X_5 = Experience; X_6 = Family size; X_7 = Income; X_8 = Extension visit

RESULTS

Socio-Economic Characteristics of the Respondents

The socio-economic characteristic of the respondents is shown in table 1. The table showed that majority (60.0%) of the respondents were women and 40% were male, 68.0% were married, while 18.0% were single with a mean age of 39 years, 37% of the respondents had only primary education, while 33% did not have formal education, with a mean income of ₦49,600 per month. Majority (98%) of the respondents do not have extension visit and all (100%) of the respondents are aware of family planning.

Table 1: Socio-Economic Characteristics of the Fisherfolks

Variables	Frequency	Percentage	Mean
Sex			
Male	40	40.0	
Female	60	60.0	
Marital Status			
Single	18	18.0	
Married	68	68.0	
Divorced/separated	11	11.0	
Widow/widower	3	3.0	
Age (years)			
15-24	11	11.0	
25-34	25	25.0	
35-44	29	29.0	39 years
45-54	30	30.0	
55 and above	5	5.0	
Educational Level			
No formal Education	33	33.0	

Primary education	37	37.0	
Secondary Education	28	28.0	
Tertiary education	2	2.0	
Fishing Experience (years)			
1 - 5	2	2.0	
6 - 10	2	2.0	
11 - 15	12	12.0	
16 - 20	36	36.0	18 years
21 and above	48	48.0	
Family Size (person)			
1 – 4	34	34.0	
5 – 8	42	42.0	7 persons
9 – 12	16	16.0	
13 and above	8	8.0	
Income (monthly)			
₦ 30,000	8	8.0	
₦ 31000 - ₦ 40000	13	13.0	
₦ 41,000 - ₦ 50,000	28	28.0	₦ 49,600
₦ 51,000 - ₦ 60,000	23	23.0	
₦ 61,000 and above	28	28.0	
Extension Visit			
Fortnightly	2	2.0	
None	98	98.0	
Awareness of family planning			
Aware	100	100	
Not aware	-	-	

Source: Field Survey Data, (2023).

Sources of Information on Family Planning programmes

The various information sources on family planning includes: health personnel/ community health extension workers, fellow fisherfolks, friends and neighbours, schools, churches, market, community meetings, radio, television, newspaper, spouse, extension agents are shown in table 2. The table showed that majority (79.0%) of the respondents got information on family planning from health personnel/community health extension workers and was as such ranked 1st. Another good number (73.0%) of the respondents received information from fellow fisherfolks and was ranked the 2nd while 51.0% got information from churches and was ranked 3rd. Ranked 4th and fifth were community meetings and friends and neigbours with 48% and 38% respectively. Radio, Television and spouse were ranked 6th, 7th, and 8th respectively while extension agent was the least.

Table 2: Sources of Information on Family Planning

Sources	Freq (n=100)	Percentage (%)	Ranked
Health personnel/ Community health extension workers	79	79.0	1st
Fellow fisherfolks	73	73.0	2nd
Friends and neighbors	38	38.0	5th
Schools	8	8.0	10th
Churches	51	51.0	3rd
Market	48	48.0	4th
Community meeting	10	10.0	9th
Radio	36	36.0	6th
Television	12	12.0	7th
Newspaper	4	4.0	11th
Spouse	11	11.0	8th
Extension agent	1	1.0	12th

Source: Field Survey Data, (2023). ***Multiple Response***

Type of Family Planning Available to Respondents

The result in Table 3 showed that majority (85%) of the respondents indicated that condoms were available to them; fertility awareness-based methods (76.0%), emergency contraception (73%), injectables (64.0%) and birth control pill (56.0%) and they ranked 1st- 5th positions respectively. Other family planning programmes available are: birth spermicidies (37.0%), diaphragm (17.0%), implant (5.0 %), combine patch and vaginal ring method (1.0%) were available to be utilized and ranked 6th – 9 th positions respectively; while female sterilization and male sterilization were not available for use and it ranked 10th.

Table 3: Type of Family Planning Available to Fisherfolks

Types of family planning	Frequency (n=100)	Percentage (%)	Ranked
Condoms	85	85.0	1st
Injectable	64	64.0	4th
Birth Control Pill	56	56.0	5th
Implants	5	5.0	8th
Female sterilization (tubal ligation)	0	0.0	10th
Spermicides (contraceptive gel)	37	37.0	6th
Emergency contraception	73	73.0	3rd
Male sterilization (vasectomy)	0	0.0	10th
Fertility awareness (cycle beads, safe periods, calendar method)	76	76.0	2nd
Combine Patch and vaginal ring method	1	1.0	9th
Diaphragm	17	17.0	7th
Intra-uterine device	0	0.0	10th

Source: Field Survey Data, (2023). ***Multiple Responses***

Level of Adoption of Family Planning Methods

The results in Table 4 showed that the level of adoption of the outlined family planning methods was high in respect to the mean score which is higher than the cut off mean 2.00 for adoption. The mean of their responds on adoption were as follows: Withdrawal method ($\bar{X}$ = 2.84, SD = 1.64), emergency contraception ($\bar{X}$ = 2.77, SD = 1.66), Prolonged Breastfeeding and Herbs/roots ($\bar{X}$= 2.65, SD = 1.63), condom ($\bar{X}$= 2.63, SD = 1.62), Timing/ safe period ($\bar{X}$ = 2.55, SD = 1.60), Massage ($\bar{X}$= 2.31, SD = 1.52), Waistband/armlet ($\bar{X}$ = 2.35, SD = 1.53), Fertility awareness (cycle beads, calendar method) ($\bar{X}$ = 2.37, SD = 1.54), injectable ($\bar{X}$ = 2.23, SD = 1.49), Postpartum Abstinence/celibacy ($\bar{X}$= 2.19, SD = 1.48), Birth Control Pill ($\bar{X}$ = 2.13, SD = 1.46), Spermicides (contraceptive gel) ($\bar{X}$ = 2.11, SD = 1.45). Other family planning methods that were not adopted included: Abortion ($\bar{X}$ = 1.52, SD = 1.23), Implants ($\bar{X}$ = 1.00, SD = 1.00), Intra-uterine device ($\bar{X}$ = 1.00, SD = 1.00), Combine Patch and vaginal ring method ($\bar{X}$ = 1.05, SD = 1.02), Female sterilization (tubal ligation) ($\bar{X}$ = 1.04, SD = 1.02), Male sterilization (vasectomy) ($\bar{X}$ = 1.00, SD = 1.00). The grand mean score for level of adoption was 2.02 while the grand score for the standard deviation was 1.19.

Table 4: Level of Adoption of Family Planning Methods by Fisherfolks (n=100)

Family Planning Methods (n=100)	High	Moderate	Low	Sum	Mean $(\bar{X})$	SD
Natural Methods						
Withdrawal method	89	6	5	284	2.84	1.64
Prolonged Breastfeeding	74	16	10	265	2.65	1.63
Timing/ safe period	72	6	32	255	2.55	1.60
Traditional Methods						
Postpartum Abstinence/celibacy	39	41	20	219	2.19	1.48
Herbs/roots	76	13	11	265	2.65	1.63
Abortion	14	24	62	152	1.52	1.23
Waistband/armlet	49	37	14	235	2.35	1.53
Massage	61	9	30	231	2.31	1.52
Modern Methods						
Temporary methods						
Condoms	72	19	9	263	2.63	1.62
Injectable	46	31	23	223	2.23	1.49
Birth Control Pill	38	27	45	213	2.13	1.46
Implants	9	12	79	130	1.30	1.14
Spermicides' (contraceptive gel)	27	47	36	211	2.11	1.45
Intra-uterine device	0	0	100	100	1.00	1.00
Emergency contraception	71	27	10	277	2.77	1.66
Fertility awareness (cycle Beads, calendar method)	57	23	20	237	2.37	1.54
Combine Patch and vaginal	1	0	99	105	1.05	1.02

ring method						
Permanent Methods						
Female sterilization (tubal ligation)	2	0	98	104	1.04	1.02
Male sterilization (vasectomy)	0	0	100	100	1.00	1.00
Grand mean					2.02	1.19

Source: Field Survey, (2023). Mean Score ≥ 2.00 High Adoption; Mean score < 2.00 Low Adoption

Perceived Influence of Adoption of Family Planning programmes on Fish Production Output

According to the Table 5, the respondents agreed that family planning adoption had the following influence on their fishing production output: Allow for more investment in other non-farming livelihoods ($\bar{X}$ = 3.12, SD = 1.77), improves standard of living ($\bar{X}$ = 2.88, SD = 1.68), maintenance of appropriate family size ($\bar{X}$ = 2.77, SD = 1.66), allow for more investment in fishing gears ($\bar{X}$ = 2.75, SD =1.66), increased participation in fishing and fish production output ($\bar{X}$ = 2.69, 1.64), increase participation in marketing and sales of fish due to a decrease in household size and ensure good health for increased productivity ($\bar{X}$ = 2.65, SD = 1.64) respectively. Other variable that suggested less influence include: Increased food supply for fishing household ($\bar{X}$ = 2.43, SD = 1.56), reduced child and maternal mortality ($\bar{X}$ = 2.39, sd = 1.54), lessen pressure on limited resources ($\bar{X}$ = 2.18, sd = 1.47) and control of overpopulation ($\bar{X}$ = 2.10, SD = 1.44). The grand mean score of 2.54 and a standard deviation grand score of 1.59 confirms these positions.

Table 5: Perceived Influence of Adoption of Family Planning on Fish Production Output

Influence of Family Planning Adoption	Strongly Agree	Agree	Disagree	Strongly Disagreed	Sum	Mean $\left(\overline{X}\right)$	SD	Remark
Increased participation in fishing and fish production output	31	23	30	16	269	2.69	1.64	Agreed
Control of over population	14	18	32	36	210	2.1	1.44	Disagreed
Lessen pressure on limited resources	14	24	28	34	218	2.18	1.47	Disagreed
Reduced child and maternal mortality	20	28	23	29	239	2.39	1.54	Disagreed
Reduce family consumption of output	18	21	33	28	229	2.29	1.51	Disagreed
Increase participation in marketing and sales of fish due to a decrease in household size	30	23	29	18	265	2.65	1.64	Agreed
Ensure good health for increased fish production	29	29	20	22	265	2.65	1.64	Agreed
Reduction of family medical expenditure	14	26	21	39	215	2.15	1.47	Disagreed
Improves standard of living	22	49	24	5	288	2.88	1.68	Agreed

Maintenance of appropriate fishing family size	20	48	21	11	277	2.77	1.66	Agreed
Increased food supply for fishing household	11	44	22	23	243	2.43	1.56	Disagreed
Allows for more investment in gears	23	43	20	14	275	2.75	1.66	Agreed
Allow for more investment in other non-farming livelihoods	22	73	0	5	312	3.12	1.77	Agreed
Grand Mean						2.54	1.59	

Source:Field Survey, (2023). Mean Score ≥ 2.50 Suggested Agree; Mean Score < 2.50 Suggested Disagree

Factors Limiting Fishing Households from Adopting Family Planning Programmes in the study area

Table 6 shows the factors limiting fishing households from adopting family planning in the study area. From the table, the respondents noted that lack of awareness ($\bar{X}$ = 3.53, sd = 1.88), cost of family planning method ($\bar{X}$ = 3.51, sd = 1.87), poor quality of available health care services ($\bar{X}$ = 3.14, SD = 177), spousal refusal and none availability of preferred method ($\bar{X}$ = 3.13, SD = 1.77) respectively. Personal perception about family planning ($\bar{X}$ = 3.06, SD = 1.75), poor educational background ($\bar{X}$ = 3.01, SD = 1.73), insufficient community health extension ($\bar{X}$ = 2.78, SD = 1.67), and inadequate health personnel ($\bar{X}$ = 2.73, SD = 1.65) were also the factors limiting fishing households from adopting family planning programme in the study area. On the other hand, the respondents indicated that the following factors did not limit fishing households from adopting family planning in the study area: cultural belief ($\bar{X}$ = 2.19, SD = 1.49) religious belief ($\bar{X}$ = 1.46, SD = 1.21) and desire for more children ($\bar{X}$ = 1.53, SD = 1.24).

Table 6: Factors Limiting Fishing Households from Adopting Family Planning Programmes

Factors	Very Great Factor	Great Factor	Low Factor	Not a Factor	Sum	Mean	SD
Spousal refusal	58	6	27	9	313	3.13	1.77
Against cultural belief	27	20	2	47	219	2.19	1.48
Against religious belief	1	20	5	72	146	1.46	1.21
Personal perception about family planning	60	2	22	16	306	3.06	1.75
Desire for more children	10	4	15	71	153	1.53	1.24
Fear of experiencing side effect	62	11	5	22	313	3.13	1.77
Lack of awareness	59	31	12		353	3.53	1.88
Cost of family planning method	65	12	23	9	351	3.51	1.87
None availability of preferre method	62	11	5	22	313	3.13	1.77
Poor educational	17	72	6	5	301	3.01	1.73

background							
Poor quality of available health care services	58	17	6	19	314	3.14	1.77
Inadequate health personnel	39	17	22	22	273	2.73	1.65
Insufficient community health extension	42	19	14	25	278	2.78	1.67
Grand mean						2.79	1.29

Source:Field Survey, (2023). Mean ≥ 2.50 -A Factor; Mean < 2.50-Not a Factor

H_{O1}: Socio-economic characteristics do not significantly affect the adoption of family planning programmes by fisher folks in the study area

Table 7, showed an Adjusted R-square (R^2) value of 0.604. This result indicates that the socio-economic characteristics of the respondents accounted for about (60.4%) variation in the adoption of family planning methods among the rural fisherfolks. The remaining (39.6%) is explained by the other variables not included in the model. Also, the table showed a F-cal of 19.886 with a corresponding probability value of 0.000. This shows the overall significance of the model hence imply that the model was useful. Sex had t_{-cal} = -0.266 < 1.96 and PV = 0.791 > 0.05 (level of significance), marital status had t_{-cal} = -0.385 < 1.96 and PV = 0.701 > 0.05, age had t_{-cal} = -0.935 < 1.96 and PV = 0.352 > 0.05, educational level had t_{-cal} = 2.106 < 1.96 and PV = 0.038 < 0.05, fishing experience had t_{-cal} = 1.148 < 1.96 and PV = 0.254 > 0.05, household size had t_{-cal} = 2.453 > 1.96 and PV = 0.016 < 0.05, income had t_{-cal} = 7.053 > 1.96 and PV = 0.000 < 0.05 and extension visit had no significant effects on the adoption of family planning methods among the rural fisherfolks in the study area.

Table 7: Linear Regression Result of the Relationship between Socio-Economic Characteristics of Fisherfolks and Adoption of Family Planning Methods

Model Summary	Variables	Unstandardized Coefficients B Std. Error	T	Sig
Adjusted R^2	0.604			
F- Value	19.886			
Sig F	0.000			
No of observations	100			
	(Constant)	-.224	-.997	.322
X_1	Sex	.017	.266	.791
X_2	Marital status	-.029	-.385	.701
X_3	Age	.038	.935	.352
X_4	Educational level	.092	1.148	.254
X_5	Fishing experience	.073	2.106	.038
X_6	Family size	.171	2.453	.016
X_7	Income	.371	7.053	.000
X8	Extension visits	.033	1.021	.310

5% Level of Significance (Pv < 0.05 = significant), Detailed in Appendix B

DISCUSSION

The socio-economic characteristics of the respondents showed that majority of the respondents were women. This indicates that females dominated the fish farming community in the study area. This result contradicted the report of Odinwa *et al,* (2022) who revealed that males dominated the fish farming in Bayelsa State but agrees with Girei *et al.* (2019) who reported that fishing activity is a prominent role of women in Nigeria. Also, majority were married which implies that a good number of fisher folks in the study area are involved in family life which allows for a more committed and responsible behavior that encourages family planning (Isife et al, 2012). Odinwa *et al,* (2015) reported that 82.0% of fisherfolks in Bayelsa State are married. The result further showed that the mean age of the respondents was 39 years. Oluwemimo and Ajayi (2013) and Ajuwa et al (2024) recorded the same mean age for fisher folks in Nigeria. This implies that there is future for adoption of family planning programmes in the area since the fishing industry is operated by young and innovative individuals who are eager and not afraid to take up new practices in fishing than the aged people. A majority of the respondents had only primary education, while 33% did not have formal education, (28.0%) ended with secondary and just (2.0%) had tertiary education. This implies that majority of the respondents in the study area are not well educated, only very few of the fisherfolks passed through tertiary settings. This could influence the awareness of family planning programmes as its adoption depends to a large extent on the educational level of the fisherfolks. This result contradicted the findings of Kamanda *et al.,* (2022) who reported that educational attainment did not influence new rice adoption by smallholder farmers in Sierra Leone. The mean fishing experience of the respondents was 18 years. Fishing is one of the age long livelihood activities of people in the study area and as such the respondents have been involved in the act for a considerable long period of time. The monthly income of the respondents with a mean income of ₦49,600 per month. Lastly, all (100%) of the respondents are aware of family planning. The results coincided with the findings of Olubodun *et al,* (2020) who reported that (82.0%) and (73.1%) of people residing in south-south Nigeria and Ilara and Irolu Communities of Ikenne Local Government Area of Ogun State respectively were aware of family planning. This implies that the concept of family planning is a terminology which the fisherfolks are aware of.

Majority of the respondents indicated that majorly, condoms were available to them. Also available were, fertility awareness-based methods, emergency contraception, injectables and birth control pill and they ranked 1st- 5th positions respectively. Other family planning programmes available are: birth spermicides, diaphragm, implant, combine patch and vaginal ring method were available to be utilized and ranked 6th – 9 th positions respectively; while female sterilization and male sterilization were not available for use and it ranked 10th. This result is in line with the findings of Kinikanwo et al., (2020) in their study of the effect of covid-19 pandemic on family planning access and use in Rivers State.

The level of adoption of the outlined family planning methods was high in respect to the mean score which is higher than the cut off mean 2.00 for adoption. They are withdrawal method, emergency contraception, prolonged breastfeeding and herbs/roots, condom, timing/ safe period, massage, waistband/armlet, fertility awareness (cycle beads, calendar method),

injectable, postpartum abstinence/celibacy, birth control pill, spermicides (contraceptive gel). Other family planning methods that were not adopted included: Abortion, implants, intra-uterine device, combine patch and vaginal ring method, female sterilization (tubal ligation), male sterilization (vasectomy). The grand mean score for level of adoption was 2.02 while the grand score for the standard deviation was 1.19. The result showed that the fisherfolks mostly adopted and utilized traditional and natural family planning methods with a few modern methods. This could be as a result of several factors such as finance/ level of income, lack of proper awareness, their level of education, attitude/ perception on the modern family planning methods among others. Anaman and Okai, (2016) found that utilization of family planning methods among Peri-urban areas of Acra was dependent on their awareness of the practice. However, the result contradicted the findings of Albert *et al* (2014) that family planning methods such as male condoms, injectable and pills were frequently utilized among female of child bearing age in Rivers State, Nigeria.

Majority of the respondents got information on family planning from health personnel/community health extension workers and was as such ranked 1st. followed by fellow fisherfolks and churches which ranked 2nd and 3rd. This implies that fisherfolks get information on family planning programmes from health personnel/community health extension workers, fellow fisherfolks and churches. This result agrees with the report of Mohamed and Faraja (2022) and Anate *et al* (2022) that women of childbearing age in the rural Lake zone, Tanzania and rural postpartum women in Southwest Nigeria respectively, got family planning programme information from various sources such as neighbors, health personnels, radio, churches, newspaper, friends, etc

The respondents agreed that family planning adoption had the following influence on their fishing production output: Allow for more investment in fishing gears, increased participation in fishing and fish production output, increase participation in marketing and sales of fish due to a decrease in household size and ensure good health for increased productivity respectively. Other variable that suggested less influence include: Increased food supply for fishing household, reduced child and maternal mortality, lessen pressure on limited resources and control of over population. The grand mean score of 2.54 and a standard deviation grand score of 1.59 confirms these positions. This result is in line with the findings of Masni and Darmawasyah, (2017) that family planning showed various effects on the productivity of women labour. This is so because family planning results to a hearty and happy household which will generally improve job performance and overall productivity.

The factors limiting fishing households from adopting family planning in the study are lack of awareness, cost of family planning method, poor quality of available health care services, spousal refusal and none availability of preferred method respectively. Personal perception about family planning, poor educational background, insufficient community health extension and inadequate health personnel were also the factors limiting fishing households from adopting family planning programme in the study area. In line with this, Ekwuribe *et al.,* (2021) found that desire for more children; inadequate knowledge and awareness were among the factors affecting family planning among women of reproductive age in Ahiaba-Umueze-Owuala autonomous community

in Aba, Abia State. The test of hypothesis conducted indicates that; Sex (-0.266 < 1.96), marital status (0.385 < 1.96), age (-0.935 < 1.96) had no significant effects on adoption of family planning methods while educational level (2.106 < 1.96), fishing Experience (1.148 < 1.96), household size (2.453 > 1.96) and income (7.053 > 1.96) had significant effects on the adoption of family planning methods among the rural fisherfolks.

CONCLUSION AND RECOMMENDATIONS

The fisherfolks in the study area were aware of the various family planning methods that are available, however, their level of adoption is high as most of the fisherfolks have adopted and practice the various types of family planning methods out listed in the study; most especially natural and traditional methods such as: withdrawal, prolonged breastfeeding and herbs/roots. The perceived influence of family planning on fisherfloks included allowed for more investment in fishing gears, increase participation in fishing and fish production output, etc. The factors which reportedly affected the adoption of family planning by the fisherfolks were lack of awareness, cost of family planning method, spousal refusal and none availability of preferred method amongst others. Based on the findings, the following recommendation was made: Rivers State government should deploy more health personnel to fishing communities to the study area to assist them in the practice of family planning for improved fish production output.

REFERENCES

Adelekan, A., Omoregie, P. & Edoni, E. (2014). Male involvement in family planning: challenges and way forward. *International Journal of Population Resource,* 2(5), 1-9.

Ajuwa, H. A., Elenwa, C. O. & Isife, B. I. (2024). Adoption of Poultry Farming Technologies for Increased Poultry Production in Yenagoa Local Government Area, Bayelsa state. International Journal of Agriculture and Earth Science (IJAES), 10(5), 249-257

Akinwalere, B. O., Owolabi, K. E. & Adesida, M. A. (2015). Perception and Utilization of Family Planning among Rural Farmers in Ondo State, Nigeria. *Asian Journal of Agricultural Extension, Economics & Sociology 6(2): 85-93.*

Albert, C.O & Nne-Cosy, J (2014). Analysis of family planning programmes among rural households in Ogba/Egbema/Ndoni Local Government Area of Rivers State, Nigeria. *Agricultura, Agricultural Practice and Science Journal*, 1-2 (89-90), 158-163.

Anaman, K. & Okai, J. (2016). Extent of Awareness of Birth Control Methods and Their Use by Women in a Peri-Urban Area of Accra, Ghana. *Journal of Modern Economy. DOI:10.4236/ME.2016.71005*

Anate, B. C., Balogun, M. R., Olubodun, T. & Adejimi, A. A. (2022). Knowledge and utilization of family planning among rural postpartum women in Southwest Nigeria. *Journal of Public Medicine and Primary Care*, 10(2): 730–737. doi: 10.4103/jfmpc.jfmpc_1312_20

Aransiola, J.O., Akinyemi, A.I. & Fatusi, A.O. (2014). Women's perceptions and reflections of male partners and couple dynamics in family planning adoption in selected urban slums in Nigeria: A qualitative exploration. *BMC Public Health*;14: 869.

Chukwuji, C.N., Tsafe, A.G., Sayudi, S., Yusuf, Z.& Zakarriya, J. (2018). Awareness, Access and Utilization

of Family Planning Information in Zamfara State, Nigeria. *Library Philosophy and Practice (e-journal)*. 1771.

Duru, C.B., Nnebue, C.C., Iwu, A.C., Oluoha, R.U., Ndukwu, E.U. & Nwaigbo, E. (2018). Utilization of Family Planning Services among Women of Reproductive Age in Urban and Rural Communities of Imo State, Nigeria: A Comparative Study. *Afrimedic Journal* 6(1): 11-26.

Ekwuribe, D. C., Umeh, O. A., Orji, M. O. &Ijioma, C. E. (2021). Factors affecting family planning; it's awareness and practice among women of reproductive age in Ahiaba-Umueze-Owuala autonomous community in Aba, Abia State. *A Medical Journal of Abia State University Medical Students Association, ABSUMSAJ*; 13(1), 83-106.

Federal Government of Nigeria (2014). Nigeria Family Planning Blueprint (Scale-Up Plan). Abuja: Federal Ministry of Health available on @ www.health.gov.ng/doc/Nigeria%20FP%20B_print.pdf

Girei, A. A., Kigbu, A. A. & Boyi, A. (2019). Gender role of women in fisheries operations in the fishing communities of Doma Dam of Doma Local Government Area of Nasarawa State, Nigeria. *Asian Journal of Agricultural Extension, Economics and Sociology*, 28(1): 1-9.

Isebor, C. E., Ajayi, T. O., & Anyanwu, A. (2003). The incidence of nypa fruticans (wurmb) and it's impact on fisheries production in the Niger Delta mangrove ecosystem, *Nigerian Institute for Oceanography and Marine Research,* 1-4. Victoria Island Lagos, Nigeria.

Isife, B.I., Albert, C.O. & Isaiah, M.C. (2012). Farmers' attitudes toward family planning programmes in selected rural communities of Imo State, South-Eastern Nigeria. *Agricultural Science Research Journal:* 2(3): 106-110.

Kamanda, P. J., Momoh, E. J. J., Motaung, M. V. & Yila, K. M. (2022). Factors influencing the adoption of the new rice for African technologies by smallholder farmers in selected chiefdoms in Sierra Leone. *Journal of Agricultural Extension*, 26 (3): 23-33.

Kinikanwo I. G., Clement K. E., Agiriye M. H., Mkpe A., Ihuoma M. O., Anthony I. W., and Olatunde R. (2022) The Effects of COVID-19 Pandemic on FamilyPlanning Access and Use at Primary Health Centresin River State. *Journal of Advances in Medicine and Medical Research 34*(4): 39-48, 2022; Article no. JAMMR.84687ISSN:2456-8899

Masni, M. & Darmawansyah, A. (2017). Effects of contraceptive use on productivity of women labor at PT. Bomar Makassar. Kesmas. *National Public Health Journal,* 12 (1): 43-8. doi:10.21109/kesmas. v12i1.1419

Mba, R.A., Ihejirika, J.C. & Deekor, H. L. (2021). Influence of youth restiveness on community development in Andoni and Opobo/Nkoro Local Government Areas of Rivers State. *International Journal of Innovative Psychology & Social Development,* 9(1): 1-20.

Mohamed, K. & Faraja, N. (2022). Factors affecting family planning literacy among women of childbearing age in the rural Lake zone, Tanzania. *BMC Public Health*, 22 (646), https://doi.org/10.1186/s12889-022-13103-1

Odinwa, A. B., Enoch, I., Ekeogu, C. O., & Odinwa, A. N. (2022). Socio-economic Characteristics of fish farmers accessing credits in Bayelsa State, Nigeria. Ac*ademic Journal of*

Agricultural and Horticultural Research, 2(3), 23–33.

Odinwa, B.A., Isife, B.I. & Albert, C.O. (2015). Analysis of the adoption rates of watermelon enterprise in Ogba/Egbema/Ndoni Local Government Area of Rivers State, Nigeria. *Singaporean Journal of Business Economics, and Management Studies,* 4(9): 20-28.

Olubodun, T., Balogun, M. R. &Ogunsilu, E. A. (2020). Awareness and Practice of Family Planning among Women Residing in Two Rural Communities in Ogun State, South West Nigeria. *Annals of African Medicine*, 19(4): 246–251. doi: 10.4103/aam.aam_62_19.