



Research article

Roman Catholicism and fertility among the Mbaise, Southeast, Nigeria

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ABSTRACT

There is a prevalence of high fertility among the Mbaise of Imo State, Nigeria. This is linked to the perceptions, beliefs and practices of the people. The voluntaristic social action theory by Talcott Parsons and Proximate determinants of fertility framework by Bongaarts were utilized to highlight the links between Catholicism and fertility, as well as socio-cultural variables and fertility behaviour by showing strength of their separate and combined relationships. Data were gathered through survey questionnaire and in-depth interview. The findings from the study show that the factors affecting fertility among the Mbaise include communal and individual norms and practices, and their persistent influence signal a need to investigate their separate and combined influences on fertility behaviour. Specific findings were that: (1) Roman Catholicism is a factor responsible for the perceived high fertility among Mbaise people, (2) Roman Catholic fertility practices conform to the socio-cultural environment in the area (3) knowledge of contraceptives use is significantly low among the people of Mbaise. The negligible proportion that has used family planning methods did so for child spacing rather than for limiting fertility.

1. Introduction

Studies have shown that Africa has one of the highest fertility levels in the world with sub-Saharan Africa accounting for higher population growth rate than any other region of the world (Asaleye et al., 2019). The region alone contributes an average of 2.6 percent of the world population annually in 2010–2015 (World Population Prospects, 2017). Hence, emphasis of fertility studies is largely centered on this part of the world, focusing primarily on family planning methods, including contraceptives, as means of achieving reduction in fertility.

Consequently, access to high-quality family planning and reproductive health services is a central and growing concern in sub-Saharan Africa at the moment due to the high level of poverty, ignorance, cultural misconceptions, beliefs and practices (Nwokocha, 2012; Igbolekwu and Nwokocha 2019). It has been observed that health problems arising from illegal abortions due to the increasing sexual activity among adolescents, is generating a growing interest in and response to family planning (Fine and Mollen, 2010; Arisukwu, Igbolekwu, Efugha, Nwogu,

Osueke, Oyeyipo 2019). These reproductive health issues suggest the need for effective techniques that will not only ensure that negative consequences arising therefrom are comprehensively understood but also that fertility level among individuals within the region is moderate.

In spite of the very high fertility level in sub-Saharan Africa for which measures toward its reduction constitutes a major demographic concern, the Roman Catholic doctrine which prohibits the use of artificial family planning methods and contraceptives in particular impinges on the fertility levels in this part of Africa. The implication is that in areas like Mbaise in Imo State, Nigeria, where Roman Catholicism is adhered to by a very large majority of the population, fertility levels are unprecedentedly high.

The advocacy for natural family planning by the Roman Catholic Church stems from the fact that it is in conformity with the natural law of God's creation which guarantees the esteem and the respect of right to life as the basic right of all human being (Oyeyipo et al., 2020). Roman Catholicism and fertility are indivisible among the Mbaise of Imo State as well as other areas where reproductive health is regulated by religious prescription. However, the links between these phenomena have not

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received adequate attention among scholars in Mbaise. Presently there is paucity of data related to these phenomena which has undermined the extent to which fertility and its consequences are understood.

Roman Catholicism emphasizes natural family planning methods for fertility reduction, however, the education and knowledge required to effectively achieve it have been noticeably lacking. Without a comprehensive understanding of the nature of family planning techniques and the factors that affect their access and use, there is the likelihood that fertility levels will remain high. Unfortunately, many couples particularly in rural communities are illiterates and lack the necessary knowledge to adapt to contemporary family planning methods. This is coupled with the prevailing high poverty rate which places more priority on the need to provide basic food and adequate nutrition for the family (Arisukwu, Dolapo, Asaleye, Asamu, 2019).

The major limitation to understanding natural family planning methods is that unlike artificial approaches, data collection related to these methods is difficult. This is because natural methods are shrouded in secrecy to the extent that scholars are constrained in their activities/researches. Hence, designing interventions, in areas where a very large majority are practicing Roman Catholics, have been characterized by inconsistency. Kippley (1987) reveals that the symptothermal, Ovulation Billings and the Calendar Rhythm methods of natural family planning are not infallible. To a large extent natural family planning methods do not exhibit the same consistency characteristic of artificial methods such as condoms, Injectibles, Norplant implants among others.

Couples have in some instances, misinterpreted their body signs resulting to unplanned pregnancies and increase in the number of children their available resources can sustain. This has led many Roman Catholic faithfuls to embrace the use of contraceptives against the doctrinal position of the Church. The failure to achieve a high degree of accuracy resulting from natural family planning methods and by implication the fear of uncertainty surrounding the meeting of fertility desires among most couples in Mbaise have resulted in one of the highest fertility levels anywhere in the world. Such level of fertility unless checked by socio-economic resources gives impetus to various vices and maladjustment in society (Ake, Rasak, Igbolekwu, Ogunlade, Nwozo).

The Catholic Church opines that artificial family planning is wrong, immoral and alters God's will on procreation (John Paul II, 1995). Catholicism discourages the use of family planning methods such as the pill, intrauterine devices (IUDs), diaphragms, and condoms because they do not stop the sperm and egg from fusing. Rather, they are perceived as an abortifacient which forces the uterus to expel eggs-an embryo, perceived by the Church as a human person.

Based on this argument, the Catholic Church allows wedded couples to control births and plan the size of their families using Natural Family Planning (NFP), a natural science which checks the body temperature and fluids using some computations that allow couples to determine with 95 percent certainty when to have sex and free of pregnancy (Unsel et al. 2017). However, the efficacy of the NFP technique in fertility control has remained controversial.

However, studies have shown that the NFP methods are vulnerable to miscalculations and inaccuracies which account for most of unplanned pregnancies among individuals in this religious group (Ong, 2018; Lesard and Karasek et al. 2012). The implication of this revelation is that fertility among such groups will be high. In the case of Roman Catholics, such high fertility is further sustained by disapproval of induced abortion among members.

The value for children has remained a constant issue in Igbo land especially among the Mbaise where large proportion of the youth population embrace priestly (Reverend Father, Sister and Brother) vocations which is synonymous with celibacy (Igbolekwu et al., 2019). There is the tendency towards having more children because the Priest and the religious belong to the church (Igbolekwu et al., 2019). Hence, high fertility among the Mbaise is explainable by a combination of Talcott Parsons' voluntary social action theory and Bongaarts' general Proximate Determinants of fertility Perspectives.

The significance of the study is that data on Catholicism and fertility, which is an important but inadequately studied subject among the Mbaise of Southeast, Nigeria is generated with a view to improving and enhancing further research efforts in this area. This is necessary given the high rate of maternal and infant deaths in most high fertility areas (Kippley 1987; Isiugo-Abanihe, 1996). have undertaken in-depth studies on fertility regulations, with emphasis largely on artificial family planning methods, disregarding the natural family planning methods. Such information is one-sided and lacks the character ascribed to holistic analysis in the social sciences. The consequence of such lopsidedness is that fertility studies and research activities in the relevant area are undermined. Hence, this study by examining comprehensively the relationship between Roman Catholicism and fertility among Mbaise people of Imo State will bridge these gaps.

2. Theoretical framework

2.1. Voluntary social action theory

The study adopted Talcott Parsons' voluntary social action theory which stresses the constraints individuals face within particular customs and values, in an attempt at explaining human behaviour with regard to socio-cultural factors and their influence on fertility. The Parsons' social action theory argues that societies exert social constraints over the actions of individuals. This assertion is buttressed by the Weber's social action theory, which emphasizes the primacy of society over the individual person (Giddens 2000). The central point of emphasis of the Parsons' social action theory is on the course of action as determined by the conditions in existence in the physical and social environment. The human society has tremendous influences on the end which the actor seeks and the available means he uses to accomplish them.

The convergence between Parsons' and Weber's social action theory is that actions can be explained in the context of the subjective meaning given to them by the actor and that the actions are always channeled towards the attainment of goal with the choice of the most appropriate method by the actors. However, the point of divergence between the two is that Parsons emphasizes the importance of societal factors in restraining the ends which an individual can pursue and the means of attaining them. Parsons' voluntary social action theory has the following as its basic premise:

- People's actions are directed towards the achievement of the end goal. Thus, Roman Catholics' behaviour related to fertility is guided by the rejection of artificial family planning methods.
- Courses of action are determined by the conditions of the physical and social environment. The environment of an individual and the structure inherent in it shapes, dictate perception and attitude of individual actor towards a particular action. The implication of this assertion is that the socio-cultural environment of the Roman Catholics restricts them from adopting the artificial family planning methods of fertility.
- Individuals have emotions which compel them to make moral judgments, which influence the selection of ends, means and their order of priority. This emphasizes the freedom of individuals to seek whatever approach that appears in their perception necessary in order to achieve set goals, which in this is natural family planning.
- Finally, actions are to be explained by the subjectively intended meaning given to them by actors, or roughly, by his perception and definition of the ends and conditions of his situation.

Parson's position as it relates to fertility seeking behaviour emphasizes the effect of socio-cultural factors on fertility practice. For stance, individuals' social and cultural environments are dictated by norms which define their actions in a given social context. In traditional societies, where cultural norms exert strong influence on members, people's perception, attitude and behaviour are guided by the prevailing customs

Table 1. Socio-demographic characteristics of respondents.

Characteristics'	Categories	Frequency	Percent
Sex	Male	78	43.6
	Female	101	56.4
	Total	179	100.0
Age	<20 yrs	2	1.2
	20–29yrs	43	25.4
	30–39yrs	48	28.4
	40–49yrs	48	28.4
	50 + yrs	28	16.6
	Total	169	100.0
Marital Status	Single	58	32.4
	Married	111	62.0
	Divorced	1	0.6
	Separated	4	2.2
	Widowed	5	2.8
	Total	179	100.0
Educational Qualification	No formal education	7	3.9
	Primary school	2	1.1
	Secondary school	18	10.1
	Higher education	151	84.8
	Total	178	100.0
Occupation	Civil servant/teacher	130	73.4
	Business	7	4.0
	Farmer/Petty trader	3	1.7
	Clergy	5	2.8
	Unemployed	19	10.7
	Crafts/Artisans	2	1.1
	Students	11	6.2
	Total	177	100.0
	Religion	Catholics	122
Non-Catholics		57	31.8
Total		179	100.0

and tradition. In some societies where high fertility is pride as a status symbol, family planning programmes and services are de-emphasized. Among the Mbaise many people still hold on to the sanctity of their traditional institution and practice such as “Ewu Ukwu” cultural practice despite the incursion of Christianity in this part of Igboland. High fertility is seen as gift of “Mother Nature” that should be encouraged, with little or no emphasis on reduced family size. The foregoing analysis suggests that the belief in socio-cultural variables in shaping behaviours, particularly fertility behaviour is still seen as sacred among the Mbaise because the “Ewu-ukwu” socio-cultural practice which encourages high fertility is presently celebrated among the people.

The voluntary social action theory however, fails to explain every aspect of fertility analysis because it focuses on human rationality. The major limitation of the voluntary social action theory in explaining fertility behaviour is the much emphasis on equilibrium and stable institutional structures. Little attention is paid to the processes and impact of socio-cultural change rather, in the personality. However, fertility does not occur in vacuum or without individual interacting to produce the necessary stimuli. Moreso, it fails to address women's reproductive lives, the impact on women (health-bodily, psychologically) having multiple children, and the conservative view of women embraced by traditional Catholicism.

3. Material and methodology

The study was conducted in Mbaise which is made up of three Local Government Areas-Aboh, Ahiazu and Ezinihitte Local Government Areas (LGAs) with a population of 611,204 people in 2006 (Agulanna, 2008).

Mbaise was chosen for the study because majority (80%) of the population is Roman Catholic (Agulanna, 2008). This constitutes important demographic component which ought to be deeply investigated.

3.1. Study area/population

Multi stage sampling technique was used in selecting the respondents. The next stage involved random selection of localities within these three (LGAs) for questionnaire distribution. In selecting specific study areas, autonomous communities within each of the LGAs were sampled from which some communities were selected. This was followed by random selection of villages within the selected communities and the systematic random technique was used in selecting households chosen for the study. Within each selected household, an adult was chosen for interview. In households where there were more than one adult, simple random sampling was used in selecting one of these adults as respondent for the study.

3.2. Questionnaire

The questionnaire consists both close-ended (restricted) and open-ended (free) questions. It has 35 semi structured items categorised into two sub-sections namely, section A (1–8) contains basic socio-demographic questions of age, sex, age, ethnicity, religion etc. while Section B (9–35) covers questions relating to the fertility regulation behaviour among Roman Catholics in Mbaise, including fertility experience, motivation, Catholic doctrine on family planning and so on.

3.3. Sample size

In all, 200 respondents were approached out which 179 participated (90.0% response rate) however, 57 forms were rejected during analysis because they were not completely filled. Therefore the study sampled 122 respondents.

3.4. Validity of the research questionnaire

The questionnaire was constructed with the consensus of reproductive health researchers in the medical demography unit, University of Ibadan and was found to have good face validity and construct validity. This was assured by giving the questionnaire to other consultant reproductive endocrinologists in Ladoke Akintola University Teaching Hospital (LAUTECH) who were not a part of the study and incorporating their inputs in the final version of the questionnaire. Reliability of the questionnaire was insured by pretesting it in Owerri West and North Local Government Areas with similar geographic and socio-religious environment.

3.5. Qualitative data analysis

Data generated through tape-recorded interviews were transcribed while field notes from interviews were organised thematically. Thematization of data were conducted using qualitative data analysis software (Atlas.ti 6.2). The organised data were subjected to content and narrative analyses. The first stage of analysis was limited to grouping data into issues that related directly with general and specific research questions raised in the study. In the second stage, further content analysis were carried out that explored sub-themes and unanticipated issues. The third stage involved a critical and reflexive review of interviews that facilitated the construction of a holistic picture of the processes of fertility regulation of Roman Catholics in Mbaise. Issues considered relevant, but which were not anticipated from the on-set, were teased out in ways that as much as possible align with the general focus of the study and at the same time represent the specific details that are embedded in the experiences of individual participants.

Table 2. Distribution of respondents by educational qualification and fertility.

		Fertility among the Mbaise		Total
		Low	High	
Educational Qualification	Low education	61.1% (11)	38.9% (7)	100% (18)
	Higher education	43.3% (45)	56.7% (59)	100% (104)
	Total	45.9% (56)	54.1% (66)	100% (122)

3.6. Quantitative data analysis

Quantitative data were analysed at univariate and bivariate levels with the aid of the Statistical Package for the Social Sciences (SPSS v17.0). Univariate analysis were carried out through descriptive statistics of frequency and percentages while bivariate analysis employed chi-square test that explored associations between basic socio-demographic variables and fertility regulation behaviour of Roman Catholics in Mbaise, Nigeria.

4. Presentation and discussion of results

Table 1 shows that most (56.4%) of the respondents were woman in the age range of 30–49 years with mean age of 44 years. The participation of more women in the survey could be as a result of the fact that fertility is a pride commodity celebrated as “Ewu Ukwu” for women who have given birth to ten children in the community. This is also consistent with the findings of Asamu et al. (2020).

Furthermore, the finding revealed that 53.8% of the respondents were in their active reproductive age range (20–39) years, an indication that they were competent to respond on reproductive health issues base on their experiences.

Similarly, significant (62%) of the respondents were married, a determining factor for fertility regulation among the Mbaise predominantly Roman Catholics. This was corroborated by a respondent that divorce or separation is not encouraged among the Mbaise and whoever does so losses the respect of the people:

Divorce or separation is discouraged among us to the extent that any man who divorces his wife loses respect in Mbaise. Also, a woman who divorces the husband is regarded as worthless and finds it difficult remarrying (*IDI/Educated Young Male/Ezinhitte Mbaise /2017*).

Furthermore, significant majority (84%) of the respondents had higher levels of education. This finding implies that Mbaise is a high literate community. Hence, educational awareness improved their fertility practices and behaviour.

Similarly, majority (73.4%) of the respondents were civil servants. This finding reveals that high level of education among the Mbaise qualifies them for employment in the formal sector of the economy and to navigate complex modern economic bureaucracies easily.

Finally, the study reveals that 68.2% of the respondents were Roman Catholics. This indicates that majority of respondents were qualified to answer questions on the extent to which some of these socio-demographic characteristics relate or affect fertility among Roman Catholics in Mbaise.

Table 2 shows 61.1% low fertility among respondents with low level of education and 56.7% high fertility among respondents with high level of education. This implies that high educational attainment is significantly related to fertility behaviours and practices among the Mbaise. Sound education attainment enhances their perception to activities in and around them, including their fertility behaviours, practices and preferences. The result shows that depending on the particular environment the relationship between education and fertility produces different result.

However, this finding contradicts previous studies, Baudin, de-la-Croix & Gobbi (2015) and Kravdal (2008) who reported that high fertility is associated with low level of education. This means that the more the level of education, the fewer the number of children couples will have. However, in normal circumstance high level of education is expected to lower fertility, rather among the Mbaise, the situation is the opposite because higher level of education leads to high fertility. High levels of education attract better income that enables couples sustain large number of children and cure improved lives for them. This finding was supported by a respondent who reported that high fertility among the Mbaise is more of socio-cultural than other factors:

Mbaise people cherish high fertility notwithstanding their educational awareness. The desire for high fertility is socio-cultural and cannot be wished away by modernity. The campaign for moderate family size through artificial family planning has not changed the situation on ground. This will not likely change in the near future, will remain the same in Mbaise (*IDI/Middle Age Traditional Ruler/Ezinhitte Mbaise/2017*).

Another respondent opined that educational awareness contributed to the high fertility among the Mbaise and confer political advantage on them:

Educational attainment contributes significantly to the high fertility in Mbaise because it enables us seek better medical facilities and eat improved diets. Ordinarily, an Mbaise would want to give birth to as many children as ten in order to have the “Ewu Ukwu” ceremony performed for their wives. Apart from these, high fertility gives the Mbaise political advantage since politics is a game of number. Therefore, the campaign for fertility reduction should be discouraged in Mbaise because high fertility is in accordance with the divine injunction, multiply and fill the earth (*IDI/Educated Old Age Clergy/Ahiazu Mbaise/2017*).

Table 3 shows that Occupation is not related to fertility since $p > 0.05$. There is 59.3% high fertility among civil servants and 61.3% low fertility among non-civil servants. Most of the respondents were of the view that regular income and early close of work were responsible for the observed fertility differential between the two categories of occupation. This finding was corroborated by a respondent that civil service job is family friendly because it gives couples time to be together which could lead to more fertility:

My work gives me time to relax with my family. Once I closed office by 4 PM, I pick my wife from her shop and head home till the next day. When couples have ample time for each other and in the absence of contraceptive use during copulation, the outcome most time resulted to pregnancy (*IDI/Educated Middle Age Teacher/Ahiazu Mbaise/2017*).

Increased spousal communication and regular income would lead to high fertility because it is a contact process between and among couples.

Table 4 shows that there no relationship between religion and fertility since $p > 0.05$. The data depicts that 54.3% of Roman Catholics have high fertility while 53.7% of non Catholics have high fertility respectively. This finding is an indication that both religions are receptive to high fertility. This finding was elaborated by a respondent the large

Table 3. Distribution of respondents by Occupation and Fertility.

Occupation		Fertility among the Mbaise		Total
		Low	High	
	Civil Servants	40.7% (37)	59.3% (54)	100% (18)
	Non-civil servants	61.3% (19)	38.7% (12)	100% (104)
	Total	45.9% (56)	54.1% (66)	100% (122)
Pearson chi-square (df)	3.963 (1)			
Significance value	0.48			

Table 4. Distribution of respondents by Religion and Fertility.

Religion		Fertility among the Mbaise		Total
		Low	High	
	Catholics	45.7% (37)	54.3% (44)	100% (81)
	Non-Catholics	46.3% (19)	53.7% (22)	100% (41)
	Total	45.9% (56)	54.1% (66)	100% (122)
Pearson Chi-Square (df)	0.005 (1)			
Significance value	.945			

population of Roman Catholics in Mbaise is attributed to the non-use of contraceptives:

The population of Roman Catholics is more than other religious denominations in Mbaise because Catholicism discourages use of contraceptives for fertility regulation. Any committed Catholic is not afraid of pregnancy when it occurs unlike other religious faith whose doctrinal practice allows them to use contraceptives for birth control (*IDI/Middle Age Female/Aboh Mbaise/2017*).

Another respondent maintained that Catholicism prohibits the use of contraceptives for fertility regulation because they destroy the essence of sex, which is solely for procreation purpose:

Catholicism prescribes use of natural family planning methods for fertility regulation because contraceptives take the sacred element out of sex. The church does not want sex to become an ordinary act with no purpose. That does not mean that the church encourages her faithfuls to have more children than they can cater for (*IDI/Young Catholic Laity/Ezinihitte Mbaise/2017*).

The foregoing explanations from the stand point of Catholicism imply that birth regulation is attained through natural means because it is in consonance with the natural order of creation of God. Hence, Catholicism is a factor for the high fertility among the Mbaise of Imo

predominantly Roman Catholics. Moreso, the natural methods of fertility regulation are subject to failure resulting to unplanned pregnancies due to miscalculation of body signs. Studies have shown that the Sympto-thermal Method (SM) of NFP has unintended pregnancy rates of less than 1 percent with flawless use and 2 to 8 percent with normal use (*Frank-Herrmann et al., 2007*).

Similar study of American College of Obstetricians and Gynecologists shows that NFP has about 24 percent failure rates such that it does not prescribe it for women who could be put in medical threat from a pregnancy (*O'Loughlin et al., 2017*).

These findings highlight the need for the re-evaluation of socio-cultural and religious practices which are not in tandem with contemporary realities in the human society. For instance, studies have shown that appreciable number of Roman Catholics use contraceptives because their attitudes towards reproductive health issues shift continually in contrast to their doctrinal prescription. Furthermore, the findings of Guttmacher Institute revealed that NFP is not popular among Roman Catholics in the United States of America because percent of Catholic women of reproductive age effectively utilize this procedure.

Similarly, Univision 2014 survey shows that 79 percent of global Catholic population endorses the use of contraceptives while 98 percent of U.S. Catholic women of childbearing age reported to have utilized contraceptives a number of times during their effective sexually life (*O'Loughlin, 2016*).

Table 5 reveals low knowledge of contraceptive use among the Mbaise of Imo State, 41% Condom knowledge was the most prevalent contraceptive knowledge among the respondents while 10.06% Norplant knowledge was the least prevalent knowledge of contraceptives use among the respondents. This finding was attributed partly to influence of Catholicism and partly to social cultural factor, Ewu Ukwu. According a respondent the use of condoms for fertility regulation contradicts God's divine injunction of fertility:

As a devout Catholic, it is wrong for me to use contraceptives to regulate fertility because God told man "multiply and replenish the earth". God did not restrict man to the number of children to conceive. So why must we go contrary to the divine injunction of the Father of creation? With this I do not see the wisdom to seek the knowledge of any contraceptive method for fertility regulation. Even by accident I have a pregnancy I did not plan for, I will not terminate it because God who made it possible will provide the means of sustenance (*IDI/ Middle Age Female/Ahazu Mbaise/2017*).

Table 5. Distribution of Respondents by Knowledge of contraceptive methods.

Types of contraceptives	Frequency and Percentage of Responses	
	YES	NO
Lactational Amenorrhea Methods	13.97 (25)	86.03 (154)
Intrauterine Device Method	21.79 (39)	78.21 (140)
Condom Method	41.90 (75)	58.10 (104)
Combined Oral Contraceptives Method	24.02 (43)	75.98 (135)
Female Barrier Method	15.08 (27)	84.92 (152)
Vasectomy Method	14.53 (26)	85.47 (153)
Tubal Ligation Method	14.53 (26)	85.47 (153)
Progestin-only Oral Contraceptive Method	13.97 (25)	86.03 (154)
Norplant Implants Method	10.06 (18)	89.94 (161)
Injectables Method	20.11 (36)	79.89 (143)
Female Sterilization Method	16.76 (30)	83.24 (149)

Table 6. Distribution of respondents by knowledge of natural family planning.

Types of Natural Family Planning Methods	Frequency and Percentage of Responses	
	Frequency	Percentage
Calendar Rhythm Method	35.20 (63)	64.80 (116)
Cervical Mucus Method	18.44 (33)	81.56 (146)
Abstinence Method	38.66 (71)	60.34 (108)
Withdrawal Method	41.34 (74)	58.66 (105)
Basal Body Temperature Method	16.20 (29)	83.80 (150)
Sympto-thermal Method	8.94 (16)	91.06 (163)

Another respondent maintained that poverty does prevent the Mbaise man from having large family size because high fertility is our cultural heritage:

High fertility is a cultural heritage of our people which has made us popular in Igboland. I will have as many children as destined for me by God. Poverty cannot stop me from attaining my fertility desire. Fortunately, illiteracy is out of the question here because I have National Certificate Examination degree. I am aware of the consequences of my actions (*IDI/ Middle Age Female/Aboh Mbaise/2017*).

The low contraceptive use revealed in the study aligns with the findings of previous studies which reported low level of contraceptive use in Nigeria. For instance, *NDHS (2003)* survey reported that 8 percent of married women are using contraceptive and 15 percent contraceptive prevalence in Nigeria (*Adeyemi et al., 2016*). This result underscores the need for an increased enlightenment on contraceptive use in order to realize the goal of right family size and reduction of the incidence of sexually transmitted diseases.

Table 6 shows that majority (41.3%) of the respondents had the knowledge of the withdrawal method of NFP while 58.6% of the respondents had no knowledge of the withdrawal method of NFP. Also, 8.9% of the respondents had knowledge of the Sympto-thermal method of NFP while 91.1% of the respondents had no knowledge of the Sympto-thermal method of NFP. This finding shows that the withdrawal method of NFP was the prevalent knowledge of NFP among the Mbaise Southeast, Nigeria. This finding was supported by a respondent who reported that the withdrawal method of NFP is a simple procedure which does not require any educational qualification to use it:

I do not use contraceptives for birth control, however, if the intention is not to have children during sex, I withdraw my pennies from my wife's vagina. This is how we have been regulating fertility for the past 15 years now without any problem. It is very simple because I do not need anybody to teach me how to use it (*IDI/ Middle Age Male Teacher/Aboh Mbaise/2017*).

Table 7. Distribution of respondents by ever used of contraceptive methods.

Types of natural family planning methods	Frequency and percentage of responses	
	Yes	No
Lactational Amenorrhoea Method	4.5 (8)	95.4 (171)
Intrauterine Device Method	8.4 (15)	91.6 (164)
Condom Method	22.3 (35)	77.71 (122)
Combined Oral Contraceptives Method	6.15 (110)	93.85 (168)
Female Barrier Method	2.79 (50)	97.21 (1740)
Vasectomy Method	1.12 (20)	98.88 (177)
Tubal Ligation Method	2.79 (5)	97.21 (174)
Progestin-only Oral Contraceptive Method	2.23 (4)	97.77 (175)
Norplant Implants Method	1.12 (20)	98.88 (177)
Injectables Method	6.70 (12)	6.70 (167)
Female Sterilization Method	2.23 (40)	97.77 (175)

Above all, the withdrawal method of NFP is consistently available in any situation and with no proven side effects as it's with artificial contraceptives.

Another respondent was of the view that the withdrawal method of NFP is very efficient for birth control as long as a man can withdraw his pennies on time from the vagina:

The withdrawal method is very effective if you can pull out the pennies on time from the vagina. Birth control campaigners say that it has high rate of failure, but for me I have never experienced any failure for the since we have been using it (*IDI/ Educated Middle Aged Male/Ahiazu Mbaise/2017*).

It is imperative to note that despite the reported advantages of the withdrawal methods (Coitus Interruptus/Pull Out Method) of family planning by respondents, studies have shown that there is the possibility of getting pregnant when using it for birth control. *Weiss (2018)* reports that four percent of couples that use this method correctly every time will get pregnant while twenty seven of couples who do not use this method correctly every time will become pregnant. This finding therefore underscores the need for more coherent and aggressive public enlightenment programme on fertility regulation campaigns in order to correct the expressed misconceptions in the study.

Table 7 shows that 22.3% of the respondents reported that they had used condom while 77.7% of the respondents reported that they had not used condom for fertility regulation. Meanwhile a combined total (2.2%) of the respondents said that they had used Norplant implants and Vasectomy methods to regulate fertility while combined a combined total (197.8%) of the respondents had not used Norplant implants and Vasectomy methods to regulate fertility. Condom was the prevalent contraceptive method for fertility regulation among the Mbaise. This finding was buttressed by a respondent that the use of condom for fertility regulation gives meaning to sex because it removes the fear of unplanned pregnancies and sexually transmitted diseases:

With condom I can sustain erection for a long period during sexual intercourse and prevent early discharge of sperm which would have made the act uninteresting. I do not have to entertain fears of contracting sexually transmitted diseases rampant in the world today. I wish to advice those who are against the use of contraceptives to rescind their decision for the good of human race, condom use is a wise decision (*IDI/ Educated Old Male/Ahiazu Mbaise/2017*).

Contraceptive use among the Mbaise is very low because they hold strongly to their cultural and religious beliefs which encourage high fertility. Most of the people of Mbaise are Roman Catholics whose doctrinal prescriptions on fertility regulation strongly oppose the use of artificial contraceptives. In addition, the "Ewe Ukwu", practice of the Mbaise conforms to Catholic fertility regulations because it is celebrated with thanks-giving mass in the church.

Table 8 reveals that 28.5% of the respondents reported that they use Abstinence Method while 71.5% maintained that they do not use the Abstinence Method for fertility regulation. Similarly, the Sympto-thermal

Table 8. Distribution of respondents by use of natural family planning methods.

Types of Natural Family Planning Methods	Frequency and Percentage of Responses	
	Yes	No
Calendar Rhythm Method	25.70 (46)	74.30 (133)
Cervical Mucus Method	10.61 (19)	89.39 (160)
Abstinence Method	28.49 (51)	71.51 (128)
Withdrawal Method	26.26 (47)	73.74 (132)
Basal Body Temperature Method	6.15 (9110)	93.85 (168)
Sympto-thermal Method	2.23 (4)	97.77 (175)

method is least used with 2.2% of the respondents said that they use Sympto-thermal Method while 97.8% said that they do not use the Sympto-thermal Method for fertility regulation. The finding of the study revealed that Abstinence is the popular method of NFP among the Mbaise. This finding is supported by Hajnal (1986) that abstinence has reduced fertility more than any other known contraceptive method in human history. In addition, Abstinence has no reproductive health risks, it prevents pregnancy and sexually transmitted diseases. It reduces emotional and psychological challenges related to relationships that involve sexual activity.

5. Major findings of the study

- Roman Catholicism is a factor responsible for the perceived high fertility among the Mbaise people.
- Roman Catholic fertility practices conform to the socio-cultural environment of the area.
- The socio-cultural practices of the Mbaise “Ewu Ukwu”, is a major factor responsible for high fertility in the area.
- There is a very negligible acquaintance with family planning practices. The negligible proportion that indicated usage does so for child spacing rather than to limiting fertility.
- That natural family planning advocated by the Roman Catholic Church is responsible for the perceived high fertility among Catholic faithfuls in Mbaise.
- That Roman Catholicism is favourably disposed to Mbaise socio-cultural practice of “Ewu Ukwu” because its celebration is accompanied with special thanks-giving mass, which underscores its acceptability by the church.
- There is a significant adherence to catholic doctrine on fertility known as natural family planning by faithfuls in Mbaise.
- Educational attainment is not a barrier to Catholic belief and practice of fertility because a considerable proportion of Catholics have high fertility an indication of acceptance notwithstanding the difficulty and high failure rate of the natural family planning approved by the Catholic Church in Mbaise.

6. Conclusion

The study has provided data to examine the links between religious and socio-cultural variables and fertility among the Mbaise of Imo State having pinned down the combined and individual behaviours, attitudes and values related to fertility practices through demography. However, the main point of emphasis of the study is that, the belief system and practice of a people are central to the examination and subsequent analysis of fertility behaviours, in which case activities of individuals are regulated by their cultural dictates. However, any cultural (Ewu Ukwu) or religious practice which encourages multiple births by women violets their sexual reproductive health and rights, the significant causes of maternal death and morbidity. Many religious organizations have made official pronouncements in support of the right of families to practice birth control by various methods. The unfair treatment and marginalization of women makes case for the adoption of safe voluntary abortion morally inevitable. The rigid proclamation upholding the sacredness of life but disregard the circumstance in which conception occurs fail flat to bring that proclamation to stand on the real setting of life. In this case religion and Ewu Ukwu are aspects of the culture of Mbaise people which obviously contribute to the high fertility in this area.

Declarations

Author contribution statement

Joseph Nwogu: Conceived and designed the experiments, wrote the paper.

Chisaa Onyekachi Igbolekwu: Conceived and designed the experiments.

Arisukwu Ogadimma: Performed the experiments.

Nwogu Esther Chinyere, Obioha. N. Nwabugwu: Analyzed and interpreted the data.

Ezeibunwa Nwokocho: Contributed reagents, materials, analysis tools or data.

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Data availability statement

Data included in article.

Declaration of interests statement

The authors declare no conflict of interest.

Additional information

No additional information is available for this paper.

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