

EFFECT OF RELIGIOUS DENOMINATION AND RELIGIOSITY ON PERCEPTION AND ATTITUDES TOWARD FAMILY SIZE AMONG THE ATYAP, NIGERIA

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Abstract

This paper discusses fertility preferences using quantitative and qualitative data obtained from 600 Atyap women aged 15-49 years during a household census and survey in 1995. The predominantly Christian and rural Atyap community has a high desired family size and high ideal family size (5 children). The Church is effectively encouraging members to embrace the small family size norm but the women still accept the traditional tenets of Christian belief that emphasise the high value of children. The study highlights the importance of collecting data on religion variables during national surveys in Nigeria for the purpose of examining the effect of religion on fertility behaviour and for intrafaith analysis which might clearly reveal differentials interfaith comparisons might mask in certain behavioural trends.

Keywords: *Religion, Atyap, Ideal family size, Desired family size.*

Background to the Study

Fertility preference measures are of interest in themselves but probably more so in relation to fertility behaviour. In a review of the literature on family size preferences, Freedman (1987) observed that the measures of desired family size have been used, among others, as indicators of the motivation to practise birth control and to determine whether or not significant fertility declines were likely in high-fertility countries. Many women in developing countries were found to want to stop childbearing and 'fertility desires are not unlimited even in Sub-Saharan Africa' (Freedman 1987:780), indicating a readiness for changes in fertility behaviour.

The utility of measuring family size expectations or preferences has long been debated (Noack and Ostby 1985). There has been no agreement on which questions best measure them or the validity and reliability of the measures (Westoff and Ryder 1977; Oakley 1981), the wording (Ware 1974), underlying assumptions (Ryder 1973) and rationalisation (Lightbourne 1987). Whatever the debate on the utility of measuring family size preference and the validity and reliability of its measures, the importance of examining family size preferences in developing countries, especially in Sub-Saharan Africa, has been succinctly expressed by Ware (1974:274-5) who, in her excellent discussion of the concept, states,

The justification for studying ideal family size in those areas of the developing world where [contraception] is rare is not...to project fertility trends, but to gain some measure of the dissonance between the number of children parents are bringing into the world and the number that they wish to have. The supreme importance of this index is that it provides a measure of the potential for change.

Data on ideal family size proved to be of unique value in analysing the downward shift in family size expectations in the US in the 1970s (Blake 1974).

Studies in the developing world have revealed that, Africa in the early 1980s had a mean desired family size of seven children compared to about five in Asia and Oceania and four in Latin America and the Caribbean (United Nations 1987, 1995). A similar pattern was observed among ever-married women in the late 1980s (United Nations 1995). Various factors such as religion, residence, age, sex preference, number of living children, education and work experience of women and traditionalism have been found to influence fertility preferences in different nations of the developing world including Nigeria (see McCarthy and Oni 1987; Ahmed 1990; Kritz and Makinwa-Adebusoye 1994).

Regarding religion, Dyck (1968:177) argued that what the people believe is a 'significant point at which religious variables become relevant in predicting ways motivation to control fertility can be increased.' He explains that the strong belief in the active providence of Allah is the pronatalist view in Islam which makes restriction of family size become an act of impiety. Similarly, the calculation involved in the process of fertility becoming 'within the "calculus of conscious choice"' is considered immoral by the Hutterites or Amish who consequently reject fertility control (Coale 1973:65).

Empirical studies in both developed and developing nations have confirmed the above observations. For example, a study of the desired family size of American women in 1971 and 1976 by Hirsch et al. (1981) revealed that religious affiliation and religiosity were two of the five variables having the largest predictive values in a multivariate analysis. Studies in developing countries such as the Philippines (Johnson and Burton 1987), Sri Lanka (Pullum 1980), and Bangladesh (Ahmed 1990) found religion to have high predictive power of desired or ideal family size.

However, contradictory findings have been reported for Nigeria. Two different studies among sub-populations in Nigeria found no association between religious affiliation and desired family size and non-numerical response to desired family size questions. Kritz and Makinwa-Adebusoye (1994) also found no statistically significant association between religion and desired family size (wanting or not wanting an additional child) among the Yoruba sub-sample of their study of six major Nigerian ethnic groups in 1991. Furthermore, McCarthy and Oni (1987), using 1983/84 data, found affiliation to the Muslim or Christian religion has no statistically significant relationship to the type of response to desired family size item (the number of children preferred in a life time) among urban women of Ilorin, Nigeria.

In contrast, Isiugo-Abanihe's (1994) study of a sample of Nigerian men, predominantly from two southern and two northern cities, found religious denomination and affiliation to significantly account for variations in desired and ideal family size. Protestants and Traditional religionists were still more likely to state higher desired and ideal family sizes respectively, than Muslims, after controlling for several socioeconomic and demographic variables (Isiugo-Abanihe 1994:157-8). In their study of ideal and desired family size and actual number of children ever born to married Arabian students in the US, Al-Mubarak and Adamchak (1994) found religiosity, measured as participation in various religious activities, to be the only statistically significant explanatory variable of both ideal and desired family size. This influence of religion persisted despite the high socioeconomic background of the respondents.

In line with Chamie's (1981) argument, interfaith comparisons might mask differentials in certain behavioural trends which intrafaith analysis might clearly reveal, or they might generate greater differentials than those generated by interfaith analysis. Many decades ago, Protestant fundamentalists were found to

have a greater average family size and fertility preference than non-fundamentalists in the Growth of the American Family (GAF) studies (De Jong 1965; Ryder and Westoff 1971). An intrafaith study of the effect of Christian religious denomination and/or religiosity on desired and ideal family size in Nigeria seems to be lacking.

Purpose of study

This study aims at providing information about fertility behaviour of one of the over 200 non-Muslim and predominantly Christian ethnic groups in the Middle Belt region. In particular, the study aims at exploring the effect of religious denomination as well as religiosity, a good measure of the effect of religion on fertility preferences and fertility, which other fertility studies on Nigeria, as far as I know, have not done. Furthermore, the study seeks to contribute to the existing substantive literature on the relation between religion and fertility preferences, encourage collection of data on religion by researchers especially at the national level and provide implementers of population programs an additional insight they may require for choosing workable strategies for the state, particularly the non-Muslim areas of the State.

Research questions

- I. What are the fertility preferences (desired and ideal family size) of the Atyap women?
- II. What is the effect of religion (religious denomination and religiosity) on desired and ideal family size?

Research Hypotheses

1. Atyap Catholic women are likely to have higher fertility preferences than Protestants.
2. Women with higher levels of religiosity (measured by the strength of religious beliefs or frequency of participation in religious activities) are likely to have higher fertility preferences than those with lower levels of religiosity.

Research setting

The Atyap are in Atyap Chiefdom of Kaduna State, Nigeria. Traditionally, the Atyap were predominantly engaged in agriculture. However, after the arrival of Christian missionaries to the Atyap homeland about 1920 (Turaki, 1993) numerous Western-type educational institutions were established thereby also introducing the Atyap to skills for other economic activities. The conversion to Christianity increased the acceptance of Western type of education, which all vigorously pursue as a means of occupational and social mobility.

Research Methodology

The target population for this study is women aged 15-49 years. The data for the study were obtained through a survey conducted in 10 of 15 Zonzon villages of Zonzon Atyap, one of the seven administrative units in Atyap homeland. A sample of 600 hundred women, from 446 randomly selected inhabited dwellings, were interviewed. The study integrates the quantitative and qualitative approaches of data collection on a wide range of issues of fertility behaviour. The quantitative data sets partly used for this paper come from household census and women sample survey with items mainly drawn from

comprehensive questionnaire modules of Nigerian national surveys (1981/82 NFS and 1990 NDHS), and the International Social Science Programme, Religion, Round 1 Module. Data collected generally include basic background information such as ethnicity, age, sex, education, marital status, religious beliefs and practices, attitude towards family planning and family size, the proximate determinants of fertility, children ever born, surviving and dead, and live births five years prior the survey. The qualitative data come from in-depth interviews with government and NGO officials as well as community and Christian religious leaders, and seven focus group discussions.

The three categories of religious denomination used in the analyses are Catholic, Other-Protestants (Anglican and Baptist) and the Evangelical Church Wining All (ECWA) also a Protestant denomination. Religiosity is measured by two indices: religious belief and religious participation. Religious belief is an index based on the average of four 100-point scaled items (belief in Biblical miracles, accounts of creation of man, and the world; and God's punishment). Similarly, an index of religious participation is derived using four items - frequency of prayers, Church service attendance, Bible reading/study, and attendance of other religious activities. The control variables were measured in standard units except socioeconomic status which refers to material living standard as measured by type of housing and number of modern household items (see Isiugo-Abanihe, 1994).

To assess the separate impact of religious denominations and religiosity on desired and ideal family size, multivariate regression analysis was used to control the potentially confounding

Factors. The model for OLS regression analysis is:

$$Y = b_0 + b_1X_1 + b_2X_2 + \dots + b_kX_k + e$$

Where Y is the dependent variable; b_0 is a constant value; $b_1 \dots b_k$ are unknown parameters or estimated value functions of the explanatory variables; $X_1 \dots X_k$ are the explanatory variables; and e is an error term with a zero mean and normal distribution (see Jaccard et al. 1990). Age squared is used to control for any observed curvilinear relationships between age and the dependent variable.

From the qualitative data, the range of opinions systematically documented for the purpose of gaining insights as regards the similarities and dissimilarities of views or beliefs and attitudes aid in explaining underlying opinions, attitudes and behaviour patterns thereby giving an insight into their fertility preferences.

Results and Discussion

About 89 per cent of the Atyap women in the 1995 Zonzon Atyap Women Survey gave a numerical response to the desired and ideal family size questions (Not shown). This means that desired family size has entered 'within the calculus of conscious choice' (Coale 1973:69) of the Atyap women, as found in some developing societies (United Nations 1995), thereby satisfying Coale's first prerequisite for a change in fertility behaviour. This may be responsible for the lower total fertility rate (5.8) among the Atyap in 1995 (Avong 2001) than observed for the Northwest region (7.3) and rural Nigeria (6.3) in 2008 (NPC and ICF Macro 2009) about 13 years later.

Both desired and ideal family sizes among the Atyap are high compared to other world societies (see United Nations 1995). The focus groups of married women and men generally suggested an ideal family size of five and six children respectively. The quantitative data show that all Zonzon Atyap women had a mean

desired family size of five in 1995 and ever-married women had a mean of six while the two categories of women had an average ideal of five children (Table 1).

However, the mean desired family size of five children is lower than the mean of 5.8 and 8.0 children observed for urban and rural Kaduna State respectively and 7.0 children for rural Nigeria in 2000 (NPC 2002) and the predominantly Muslim Northwest of Nigeria in 1990 (Makinwa-Adebusoye and Feyisetan 1994:73). Furthermore, Table 1 shows a decrease in the mean number of children desired at marriage and the ideal family size as we move from the oldest to the youngest generation of Atyap women, and as level of education rises. This declining pattern is supported by other recent studies in the country (NPC 2000; NPC and ORC Macro 2004; NPC and ICF Macro 2009)

Table 1: Mean desired and ideal family size for all and ever -married women aged 15 - 49 by selected characteristics, Zonzon Atyap, 1995

Characteristics	Family size preferences			
	All women		Ever-married women	
	Desired	Ideal	Desired	Ideal
Age group				
15-19	4.2 (133)	4.3 (157)	4.9 (11)	4.3 (12)
20-24	4.7 (101)	4.6 (105)	4.9 (66)	4.8 (69)
25-29	5.2 (63)	5.0 (67)	5.5 (53)	5.2 (56)
30-34	5.3 (56)	5.1 (56)	5.4 (54)	5.2 (54)
35-39	6.2 (39)	4.9 (38)	6.2 (39)	4.9 (38)
40-44	6.9 (49)	5.0 (51)	6.9 (49)	5.0 (51)
45-49	8.1 (51)	5.2 (49)	8.1 (51)	5.2 (49)
Education				
None	7.7 (80)	5.2 (76)	7.7 (80)	5.2 (76)
Primary	6.1 (98)	5.2 (105)	6.4 (85)	5.3 (87)
Secondary/Higher	4.6 (314)	4.5 (341)	5.0 (158)	4.8 (166)
Socioeconomic status				
Low	5.5 (392)	4.8 (415)	6.1 (266)	5.0 (269)
High	5.0 (100)	4.5 (108)	5.7 (57)	4.9 (60)
Religious denomination				
Catholic	5.6 (109)	5.0 (113)	6.1 (79)	5.2 (79)
Other Protestants	5.3 (117)	4.7 (127)	6.1 (76)	4.9 (78)
ECWA	5.4 (265)	4.7 (282)	6.1 (167)	5.0 (171)
Religious participation				
Below average	5.5 (161)	4.9 (174)	6.0 (169)	5.1 (120)
Above average	5.3 (330)	4.7 (348)	6.1 (204)	5.0 (208)
Religious beliefs				
Below average	5.2 (232)	4.6 (244)	5.9 (147)	4.9 (145)
Above average	5.6 (254)	4.9 (273)	6.1 (173)	5.1 (181)
All	5.4 (492)	4.8 (523)	6.1 (323)	5.0 (329)

Source: Zonzon Atyap Women Survey, 1995

Note: Numbers may not add to total number owing to missing cases

The mean ideal family size is persistently lower than the desired family size for both all and ever-married women as well as for all the explanatory variables, suggesting a change may be taking place. Information on ideal family size relates to the number of children the women considered as an ideal family size at the time of the 1995 Zonzon Atyap Women Survey, while that on desired family size relates to an earlier period in family building for most of the respondents. Thus, lower ideal family size than desired family size suggests that fertility values are changing in favour of smaller family sizes among the Atyap, thereby supporting the observation by some of the interviewed government officials of a decline in fertility aspirations. The mean ideal of five children for the survey women indicates that the Atyap, as asserted by the focus group of married men, have not yet accepted the ideal of four recommended by the Government in the 1988 Population Policy. However, if the smaller ideal family norm becomes increasingly widespread and acceptable to couples, their desired family size is likely to decrease, possibly leading to an overall fertility reduction in future.

According to Bankole (1995:322), 'there is growing tendency in Nigeria to regard a family of four children as ideal.' The number of Nigerian women stating four or fewer children as the ideal increased from about 26 per cent in 1999 (NPC 2000: 95) to about 30 per cent in 2008 (NPC and ICF Macro 2009:115). A move towards general acceptance of fewer than five children as a desired or ideal family size has also started among the Atyap with the proportion of women desiring four or fewer children increasing as age decreases (Table 2). About 30 per cent of all women desired four or fewer children and 38 per cent also considered a family size of four or less to be ideal in 1995. Compared to eight per cent of the 2008 NDHS sample, about 16 per cent of the Atyap women gave three or fewer children as the ideal family size in 1995 (Not shown). This indicates that by 1995, a somewhat greater proportion of Atyap women were already thinking of an ideal number lower than the four children recommended by the Federal Government in the 1988 National Population Policy.

Table 2: Percentage distribution of women aged 15 -49 according to desired and ideal family size by selected characteristics, Zonzon Atyap, 1995

Characteristics	Family size preference				n
	Desired		Ideal		
	0-4	5+	0-4	5+	
All women					
Age group					
15-24	45.0	36.6	48.1	43.2	287
25-34	27.4	60.7	29.6	62.2	135
35+	6.2	71.9	29.2	48.3	178
Years of schooling					
None	2.0	74.3	23.8	49.5	105
1-6 years	11.9	65.9	25.3	58.7	126
7+	43.3	41.7	46.9	45.5	369
Religious denomination					
Catholic	23.3	51.4	30.1	47.9	146
Other Protestants	31.0	51.4	37.3	51.2	142
ECWA	31.8	53.4	42.8	47.9	311
Marital status					
Never married	50.7	28.6	54.0	37.1	213
Ever married	17.8	65.6	29.7	55.6	387
Total surviving children					
4 or fewer	38.3	43.5	41.0	48.4	446
5 or more	3.9	78.6	30.5	50.6	154
All	29.5	52.5	38.3	49.0	600

Source: Zonzon Atyap Women Survey, 1995

Note: Percentages do not add to 100 because those of non-numerical responses are not shown

Question two: Effects of religious denomination and religiosity on desired and ideal family size

Among the Atyap, the bivariate analysis of desired and ideal number of children revealed that religious denomination has no statistically significant association with desired and ideal family size (Not shown). However, larger proportions of all Protestant women (32 per cent) than Catholic women (23 per cent) desired a family size of four or fewer (Table 2). The two Protestant categories, ECWA and Other Protestants, had similar proportions desiring four or fewer children, and differed only slightly in the proportion who considered four or fewer children to be ideal. About 39 per cent of Catholics, 42 per cent Other Protestants and 47 per cent ECWA women stated four or less children as ideal (Table 2). This still suggests that a greater change towards reduction of family size may have been taking place among the ECWA women in 1995.

The bivariate analysis showed no significant difference between the Protestant religious groups in attitudes toward family size (Not shown), so the examination of the relationship between religious denomination and desired and ideal family size was restricted to Catholic-Protestant dichotomy in the multivariate analysis.

Table 3: Ordinary least squares (OLS) regression of desired number of children, women aged 15 - 49 who gave numerical responses, Zonzon Atyap, 1995

Variable	Model I			Model II		
	All women B	SE	Beta	Ever-married women B	SE	Beta
Religious denomination						
Catholic		0.023	0.162	0.005	0.008	0.207
Protestant (RC)						0.002
Religious participation	-0.017*	0.007	-0.088	-0.014	0.010	-0.068
Religious belief	0.029**	0.007	0.143	0.025**	0.009	0.126
Years of schooling	-0.124**	0.020	-0.276	-0.113**	0.026	-0.280
Socioeconomic status						
High						
Low (RC)	-0.403*	0.176	-0.079	-0.424	0.245	-0.080
Age	0.082**	0.008	0.432	0.059**	0.018	0.275
Age squared	-	-	-	0.002*	0.001	0.112
Constant		2.808**	0.707		3.477**	0.994
Adjusted R2		0.434			0.351	
F		63.089**			25.669**	
N		486			320	

Source: Zonzon Atyap Women Survey, 1995

Notes: RC= Reference category * p<.05; ** p<01 or p<001

Both Catholics and Protestants who gave numerical response have similar attitudes toward desired and ideal family size (Tables 3 and 4), thereby not supporting the first research hypothesis that Catholics have higher fertility preferences than Protestants. The absence of a Catholic-Protestant differential in ideal and desired family size may be a result of close social interaction between the members of the two broad denominations, the pro-individual choice stance taken by the two denominations, and the fact that both groups equally receive Western education. However, the observed positive association, though statistically insignificant, indicates that Catholics tend to be more likely to desire higher numbers than the Protestants, which is a common trend observed in the other studies (Goldscheider and Mosher 1988; Williams and Zimmer 1990; Mosher et al. 1992).

Table 4 Ordinary least squares (OLS) regression of ideal number of children, women aged 15 - 49 who gave numerical responses, Zonzon Atyp, 1995

Variable	Model I			Model II			
	All women B	SE	Beta	Ever-married women B	SE	Beta	
Religious denomination Catholic Protestant (RC)		0.132	0.149	0.038	0.233	0.180	0.071
Religious participation		-0.015*	0.007	-0.101	-0.004	0.009	-0.031
Religious belief		0.018**	0.007	0.122	0.011	0.008	0.078
Years of schooling		-0.076**	0.020	-0.226	-0.064**	0.023	-0.219
Socioeconomic status High Low (RC)		-0.159	0.162	-0.042	-0.030	0.214	-0.08
Age		0.019*	0.008	0.138	0.018	0.016	0.117
Age squared		-0.002**	0.000	-0.171	0.002*	0.001	0.209
Constant		4.500**	0.653		4.393**	0.867	
Adjusted R2		0.082			0.029		
F		7.602**			2.393*		
N		517			326		

Source: Zonzon Atyp Women Survey, 1995

Notes: RC= Reference category * p<.05; ** p<01 or p<001

The bivariate analyses show that, among all respondents, religious belief is significantly related to desired and ideal family size while religious participation is significantly related to ideal family size (Not shown). However, among the ever-married women, none of these religiosity variables has a significant relationship with desired and ideal family size. Holding other variables constant, both religious belief and participation in religious activities are statistically significant explanatory variables of desired and ideal family size for the whole sample (Tables 3 and 4). Among ever-married women, religious belief remains statistically significant in explaining the variation in desired family size, but the two religiosity variables reveal no significant variations in ideal family size.

Generally speaking, as a society becomes modernised, conformity to religious doctrines by its members is suppressed (Chamie 1976:27). This process is expected to be speeded up where the religious institution is actively encouraging changes in family size norms by campaigning for small family size ideals. The Christian churches have used both the deductive and authoritative modes of moral reasoning for promoting the small-family norm. The former 'involves the derivation of morally correct action in particular situations from general principles held to be universally valid', while the latter 'invokes the specific teachings of some legitimated moral authority' such as Bible passages or well recognised and acceptable church leaders (Kelley et al. 1993:591).

The positive association between religious participation and belief (Not shown) suggests their effect on desired and ideal family size should be in the same direction. In his explanation of an observed inverse relationship between religious participation and fertility, Marcum (1988) showed that a negative relation between participation and fertility occurred only among liberal and moderate US Protestants. Controlling for religious belief may reveal the effect of social norms or teachings that differ from the core beliefs of the

religion. This unexpected inverse association has also been linked to the 'pro-individual choice' attitude of some Christian groups to fertility or fertility-related factors (Marcum 1988:625).

Thus, the inverse association between frequency of participation in religious activities and desired and ideal family size suggests that the campaign for reducing family size by government through schools, the mass media and the Church before and during the period of the survey was having some impact. The pro-individual choice stance expressed by some clergymen or Christian churches during the in-depth interviews, might have created an environment that is conducive for liberal or moderate church members to be influenced more easily. The impact is greater on the younger age groups, the more educated, Protestants and the never married categories which have markedly higher proportions of those women whose desired and ideal family sizes are four or less children (Table 2). The research hypothesis that those holding stronger religious beliefs are more likely to have higher family size desires and ideals is therefore supported by the 1995 Zonzon Atyap data.

Conclusion

Desired family size has entered 'within the calculus of conscious choice' (Coale 1973:69) of the Atyap women satisfying Coale's first prerequisite for a change in fertility behaviour. This may have contributed to the lower total fertility rate among the Atyap in 1995 (Avong 2001) than reported for some parts of the country in 2008 thereby begging for another research of wider coverage to document their current fertility behaviour. The desire for smaller families seems to be a recent development and is progressing ahead of fertility decline. However, the mean desired and ideal family size of five children is still high, thereby supporting the assertions about the tendency for high and sustained African fertility aspirations, especially among West African societies (Caldwell and Caldwell 1987). Since children ever born to women at the end of their reproductive span closely approximate their fertility preferences (Freedman et al. 1980; Long and Wetrogan 1981 Bankole 1995), the positive relationship between desired and ideal family size and children ever born among the Atyap (Avong 2001) suggests, the Atyap community is far from reaching the fertility replacement level needed for population stabilisation..

Although Catholic and Protestant women have similar attitudes toward desired and ideal family size (Tables 3 and 4), a greater proportion of Protestant women with a clear notion about family size may lead to family limitation, and subsequently lower fertility among these women than among Catholic women. Religious beliefs and participation in religious activities have contrasting effects on desired and ideal family size of Atyap women. This suggests that although the women still accept the traditional tenets of Christian belief that emphasise the high value of children, the Christian clergymen seem to be effectively changing their attitudes toward family size through using authoritative reasoning to persuade their members as to which morally correct position to take on the issue of small family size. Thus, this study confirms the need for the inclusion of religion items in national surveys and the importance of intrafaith analysis of data if policy makers are to be provided useful information necessary for policy formulation and choice of workable strategies.

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