



## **Reproductive behaviour and determinants of fertility among men in a semi-urban Nigerian community**

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### Abstract

**Context:** A relatively high fertility is still sustained in sub-urban and rural Nigeria despite the efforts of government and other non-governmental family planning service providers. This study was conducted to examine the reproductive behavior and determine the factors that determine the fertility of men at Ganmo, a sub-urban community on the outskirts of Ilorin, Nigeria.

**Methodology:** The study employed a cross-sectional descriptive design. An interviewer-administered semi-structured questionnaire was used to elicit information from 360 men in the households. Only males above the age of 15 years resident in the community were selected for interview. A proportionate sampling procedure was employed in selecting the required number of men from each of the 32 compounds that make up the community.

**Results:** The median age at first marriage for men was found to be 25 years. While about two-thirds of these men were married, at least 25% of them were in polygynous relationships. The Mean Number of Children Ever-Fathered (MNCEF), Mean Number of Living children (MNLC) and Mean Ideal Family Size (MIFS) for the men were 5.2, 4.2 and 5.8, respectively. For men above 50 years old who may be considered to have completed their families, these indicators were 9.3, 7.3 and 5.8 respectively. The predictors of high fertility among the men were low education, being a Muslim and having more than one wife. Men reproduced mainly because they wanted children that will carry on the family name and for economic support in old age.

**Conclusion:** The study concluded that men at Ganmo still have preference for large family sizes and an intensive drive at adult education was advocated among other recommendations.

### Introduction

It is well documented that men's general knowledge and attitudes concerning the ideal family size, sex preference of children, ideal spacing between child births and contraceptive method use greatly influence women's preferences and opinions<sup>1-3</sup>. However, fertility and family planning research and programmes have ignored men's roles in the past, focusing on women's behaviours<sup>4,5</sup>, and family planning services are instead traditionally presented within the context of maternal and child health<sup>6</sup>.

Since the 1994 International Conference on Population and Development (ICPD), and the 1995 UN World Conference on women, interests in men's involvement in reproductive health has increased.<sup>4,7</sup> There has also been a

Goals to achieving gender equality and fulfilling various reproductive responsibilities. The Program of Action of the ICPD clearly set a new agenda when it talked about male responsibilities and participation. The large number of articles<sup>8-10</sup> and the growing number of conferences, research projects and debates on this subject bear testimony to the importance of this issue, both from the programmatic point of view and as a process for bringing about a gender balance in men's and women's reproductive rights and responsibilities. This renewed interest in male involvement is not unconnected with the HIV/AIDS pandemic that has spurred an intense interest in condom promotion and the need to address men's roles in the abuse of reproductive rights and sexual violence

directed towards the female partners and relatives<sup>9</sup>. The implication of the concept of reproductive health is that men, women and young people have the right to be informed and have access to safe, effective, affordable and acceptable reproductive health services<sup>11</sup>.

Even though there is the tendency to overlook the relevance of men in matters relating to reproductive health, they have substantial reproductive health influence. Men, especially in Africa are dominant and are the major decision-makers in family affairs, including reproductive matters. Male dominance in this respect is reinforced by the cultural institution of patriarchy, religion and the economic power that men wield. For example, Ezeh<sup>12</sup> in Ghana had noted that in respect of reproductive goals, spousal influence, rather than being mutual or reciprocal, is an exclusive right exercised only by the husband. In Ilorin, Nigeria, one of the major reasons why women do not adopt a modern contraceptive method is the husband's resistance<sup>13</sup>. In Northern Nigeria, women cannot accept a method of family planning without the husbands' formal consent<sup>14</sup>.

A review of Demographic Health Surveys (DHS) in West African countries revealed that men from this sub-region, especially in Cameroon, Burkina Faso, and Senegal desire and subsequently have large family sizes.<sup>15</sup> In Niger and Cameroon; the Ideal Family Sizes (IFS) were 12.6 and 11.2 respectively. In Cameroon, the Average Family Size as reported by married men of all ages was 5.1. In many countries of West Africa, on the average, husbands ideally wanted at least three more children than their wives. The desire for many children by men in West African countries, Nigeria inclusive, is driven largely by economic, socio-cultural, egoistic and religious factors<sup>14, 16</sup> and this has impacted negatively on the demographic and socio-economic situation in the region.

Nigeria is the tenth most populous country in the world and the largest in sub-Saharan Africa, with an estimated population of 126 million in 2003<sup>17</sup>. The high rate of population growth has been driven by high fertility rates, which have fallen much less rapidly than the crude death rate, as there appeared to have only been a modest decline in total fertility in Nigeria from 6.3 during 1981-82 to 5.7 in 2003<sup>17</sup>. This persistence of high fertility has been the subject of considerable investigation during the past decade<sup>18</sup>. Despite the high fertility rate, acceptance and utilization of modern family planning methods is low, currently 9 per cent<sup>17</sup>, and various factors have been advanced for this observation, prominent among which is the lack of male involvement in family planning<sup>18</sup>. The Nigerian population situation has substantial adverse social, environmental and economic effects. Some of these include: reduced per capita income; high-rural urban migration; pressure on social services like health and educational facilities; rising unemployment rates and poverty; land fragmentation and degradation; increasing crime; communal clashes over arable land etc. Some of the direct effects of uncontrolled childbearing on the family include high infant and maternal mortality rates and poverty<sup>19</sup>.

The International Conference on Population and Development (ICPD) had recommended that "special

research should be undertaken on factors inhibiting male participation in family planning<sup>15</sup>. The National Population Policy also advocates that "special emphasis should be given to reaching men with messages on social and economic implication of having too many children"<sup>19</sup>. Therefore, if the fertility patterns of Nigerian couples and hence the population growth rate of the country must be reduced, then the reproductive motivations of Nigerian men need to be studied. This study was therefore conducted to examine the reproductive behavior and to elucidate the determinants of fertility patterns of men in a semi-urban Nigerian population.

## Methodology

### Study location

The study was conducted at Ganmo, a semi-urban settlement on the outskirts of Ilorin metropolis, the capital city of Kwara State of Nigeria. It is located on a major highway linking Ilorin to Ajase-ipo also located in Kwara State. Projected from the 1991 census<sup>20</sup>, the current estimated population of Ganmo is 6500. The estimated adult male population of the settlement is approximately 1800.

Ganmo is mainly inhabited by the Yoruba-speaking people of Southwestern Nigeria and the major religions of the residents are Islam and Christianity, while the major occupations of the men are farming, trading and semi-skilled work (artisans). The community is made up of 32 compounds of varying population sizes each having a compound head. Community entry was achieved through a formal meeting with the traditional chief of Ganmo and his council where the objectives and rationale for the study were shared and thoroughly explained. Study participants were required to give a verbal consent.

### Methods

The study employed a cross-sectional descriptive design. Any male that was 15 years and above and resident in the village was eligible for participation in the study. There were no exclusion criteria. A minimum sample size of 333 was obtained using the Fisher's formula for populations less than 10,000<sup>21</sup>; this was increased to 360 to make room for attrition. Sampling was done with the probability proportional to size method as the compounds had varying populations of men. A proportion of the sample size was allocated to each compound depending on the relative contribution of the compound to the total population of the community. The heads of the 32 compounds supplied a list of all males above 15 years of age living in each compound. Samples of men were then drawn from each compound (depending on the proportion of the sample size that had been allocated to the compound) from the list supplied by compound heads, using a table of random numbers.

A semi-structured questionnaire was used to obtain information from each selected respondent by interview. The questionnaire was pre-tested at Amoyo, another semi-urban community in the same state. Information was collected on the socio-demographic status, reproductive and marital history and the perception of men about fertility. The interviews were conducted mainly in the evenings of

**Table 1: Socio-Demographic characteristics of respondents (n= 357)**

Sociodemographic Characteristics	frequency	Percentage (%)
<b>Age (years)</b>		
15-19	49	13.7
20-29	99	27.7
30-39	83	23.2
40-49	62	17.4
50-59	34	9.5
60-69	20	5.6
70 years +	10	2.8
<b>Educational level:</b>		
No formal education	102	28.6
Primary	112	31.4
Secondary	89	24.9
Tertiary	54	15.1
<b>Marital status</b>		
Married	234	65.6
Single	119	33.3
Separated	4	1.1
<b>Occupation</b>		
Farmers	63	17.6
Artisans	74	20.7
Businessmen	42	11.7
Civil servants	52	14.5
Students	62	17.3
Drivers	27	7.6
Arabic teachers	12	3.4
Others	25	7.0

**Table 3. Mean number of children ever fathered (MNCEF), mean number of living children (MNLC) and mean ideal family size (MIFS) by selected sociodemographic characteristics.**

Characteristic	MNCEF	MNLC	MIFS
<b>Age group (years)</b>			
15-19	0	0	4.1
20-29	2.0	2.0	4.7
30-39	3.4	3.4	5.3
40-49	4.8	4.2	5.5
50-59	11.7	9.2	6.7
>70	8.8	6.7	7.1
<b>Religion</b>			
Christian	4.0	3.7	4.3
Muslim	5.6	4.5	5.9
<b>No formal education</b>			
primary	6.4	5.2	6.5
secondary	4.9	4.7	5.8
tertiary	3.6	3.6	4.9
<b>Marriage type</b>			
monogamy	3.9	3.6	5.8
polygyny	7.3	6.5	6.8
<b>Occupation</b>			
farmer	7.5	5.7	9.0
artisan	4.5	4.3	5.2
business	4.8	3.5	5.8
civil servant	3.5	3.3	4.4
driver	5.1	4.7	6.0
students	0	0	4.0
others	7.0	5.2	5.5

weekdays and on weekends by trained interviewers, who were community health workers working in the area.

Data collected were checked manually for errors and then entered and analyzed on a microcomputer using the EPI-INFO version-6-software package. Discrete variables were expressed as percentages and displayed on frequency tables. The chi-square test was used to test for association between discrete variables on the contingency tables and statistical significance was accepted at p values of less than 0.05.

## Results

Three hundred and sixty men were interviewed, but only 357 questionnaires were sufficiently completed to be used in the analysis, representing a response rate of 99.2%. More than two-thirds (68.2%) of the respondents were

Aged 20-49 years with a mean age of 35 years while only 8.4% of them were above the age of 60 years. Most (71.4%) of the respondents had at least primary education, while the rest (28.7%) of them had no formal education. A majority (72.2%) of respondents were Muslims, while 27.5% were Christians. Most of the respondents (65.3%) were married and about half of these were married by the age of 25 years, 1.1% were separated and the rest were single. The respondents were mostly artisans, farmers, traders, students and civil servants (Table 1).

Of the married men, at least 88.5% got married for the first time between the ages of 20-29 years, the median age at first marriage being 25 years. About 74.3% of these men first marriage being 25 years. About 74.3% of these men were in monogamous relationships while, the remaining had at least 2 wives. Men without formal education and men that were Muslims were more likely to

**Table 2: Marriage type by educational status and religion of married men (n=234)**

Characteristics	Marriage type		Total	p-value
	monogamy	polygyny		
<b>Educational level:</b>				
No formal education	47 (58.8%)	33 (41.2%)	80(34.2%)	$\chi^2 = 15.5$ df = 1 p<0.001
Some formal education	127 (82.5%)	27 (17.5%)	154(65.8)	
Total	174 (74.4%)	60 (25.6%)	234	
<b>Religion :</b>				
Christianity	58(91.9%)	6 (81%)	64(27.4%)	$\chi^2 = 12.2$ df = 1 P<0.001
Islam	116 (67.5%)	54 (32.5%)	170(72.6)	
Total	174(74.4%)	60(25.6%)	234	

**Table 4. number of living children (nolc) by married respondents educational level, religion and marriage type (n= 234)**

Characteristic	NOLC		Total	p-value
	0 - 4	5 +		
<b>Educational level</b>				
No formal education	36(45.0%)	44(55.0%)	80(34.2%)	$\chi^2= 9.8$ df = 1
Educated	102(66.3%)	52(33.7%)	154(65.8%)	p= 0.002
Total	138 (59.0%)	96 (41.0%)		
<b>Religion</b>				
Christianity	43(69.7%)	21(30.3%)	64(27.4%)	$\chi^2= 2.5$
Islam	95(55.4%)	75 (44.6%)		df = 1
Total	138(59.0%)	96 (41.0%)	170(72.6%)	p = 0.117
<b>Marriage type</b>				
Monogamy	126(72.4%)	48(27.6%)	174(74.4%)	$\chi^2= 50.7$ df = 1
Polygamy	12(25.0%)	48(75.0%)	60(25.6%)	p< 0.001
Total	138(59.0%)	96(41.0%)	234(100%)	

be in polygynous relationships compared with educated men and those that were Christians. These relationships were statistically significant ( $p < 0.001$ ), Table 2.

The Mean Number of Children Ever-Fathered (MNCEF), Mean Number of Living Children (MNLC), and Mean Ideal Family Sizes (MIFS) for men living at Ganmo were 5.2, 4.2 and 5.8 respectively. For men above 50 years of age, the MNCEF, MNLC and MIFS were 9.3, 7.3 and 6.7 respectively. The values for the indicators reported above were calculated based on data obtained from men who gave definite responses only, as some men wanted as many children as God provides. Men in polygynous relationships had at least 3 more living children compared with men that had only one wife (Table 3). Farmers and drivers gave birth to more children when compared with other occupational groups, while students and civil servants fathered the least number of children. Like MNCEF, the MNLC and the MIFS tended to increase with increasing age of the respondents while the values of all three indicators tended to fall with increasing educational attainment (Table 3).

Uneducated men, Muslims and men in polygynous marriages had more living children compared with educated men, Christians and men with only one wife respectively and these differences were statistically significant at p values of 0.002 for educational attainment and  $<0.001$  for marriage type (Table 4).

Education and men that were Muslims were more likely to be in polygynous relationships compared with educated men and those that were Christians. These relationships were statistically significant ( $p < 0.001$ ), Table 2. When asked about the roles of partners in reproductive health decision making, a large proportion of men (92.4%) believed that husbands should determine the family size

While 88.5% believed that men should determine the timing of pregnancies and the decision to or not to use a method of family planning. Nearly all (89.6%) men believed that, childbearing is important because of the need to carry on the family name. Other reasons for wanting many children were, for economic support in old age (73.6%), for companionship (49.2%) and for assistance in the home (32.4%) and at work (10.6%).

## Discussion

Majority of the respondents (68.2%) were found within the age groups of 20-49 years with a mean age of 35 years; this meant that most men in Ganmo were still within their active reproductive years. In most Nigerian communities, the population structure reflects a preponderance of young persons with only a small proportion of the elderly and aged, indicative of a population with high fertility<sup>17</sup>. The educational status of men in the community can be considered to be average since most (about 71.0%) of them had at least attended primary school. In Nigeria in 2003,<sup>17</sup> 72.5% of men were found to be literate. Being literate has a positive effect on reproductive behavior of men since such men usually desire small family sizes<sup>14</sup>. Majority of the respondents were either engaged in skilled manual work (artisans) or farming and in Nigeria, men who farm or engage in work requiring manual labour usually practice polygyny and desire many children<sup>14</sup>, as these groups (women and children) constitute a ready and cheap source of labour. Many of the socio-demographic characteristics observed among the respondents are typical features of a semi-urban population of men in Nigeria.

About half of the respondents were married by the age of 25 years; this result was comparable to the findings in a survey of men at Lagun<sup>22</sup>, a village located near Ibadan in

Oyo State, Nigeria, which found the median age at first marriage to be 25 years. In Africa, most males marry at a later age compared with the females, making the husbands, usually, older than their wives. This, combined with the reverence accorded to age in these communities, result in the husbands usually exploiting the situation to dominate their wives.

Married men constituted about two thirds of the respondents, and of these, at least 25.0% were married to two or more women (i.e. polygyny). The practice of polygyny was most prevalent among men without education, Muslims, and men above 50 years of age and it cut across all occupational groups, especially farmers. Men without formal education are likely to acquire more wives and have more children because they have a more conservative outlook towards family life and are likely to be involved in an occupation requiring cheap labour provided by such wives and children<sup>14</sup>. Adherents of the Islamic religion in Nigeria believe that the religion encourages men to marry up to four wives at a time. In the ensuing competition among these women to have as many children as possible, the family size continues to enlarge. The position of Nigerian Muslims on wives and children may be misplaced because in predominantly Muslim countries of North Africa (e.g. Egypt), the practice of polygyny is low and family sizes are small compared with what obtains in sub-Saharan Africa<sup>15</sup>. In Africa, as men grow older they tend to have more wives as a mark of affluence and as a means of actualizing their reproductive objectives, since men usually desire more children than their wives<sup>14,15</sup>.

Ideal Family Size (IFS) is a good indicator of men's attitude towards childbearing, even though actual reproductive behavior may differ from stated desires. Among Ganmo men, the Mean Ideal Family Size (MIFS) was found to be 5.8. In his study of Nigerian men, Isiugo-Abanihe<sup>14</sup> found the MIFS among respondents to be 6.0; while in the West African sub-region, Ghanaian men had the lowest MIFS of 4.7. In Africa as a whole, Ideal Family Size was found to be lowest in North Africa (e.g. Egypt and Morocco), with MIFS of 3.3 and 4.1 respectively<sup>15</sup>. For Ganmo men, MIFS was highest among farmers and drivers and lowest among students. Men without formal education, those in the older age group, Muslims and polygynists also tended to have a higher MIFS compared with their peers. Among the occupational groups, farmers had the greatest desire for children with an MIFS of 9.0 probably due to reasons already explained while civil servants had an MIFS of only 4.4. This is not surprising as most civil servants would be educated, with the expected positive effects of education on desire for small family size and a positive attitude to the adoption of modern methods of family planning. It was observed in this study that men in the older age groups (50-59 years) desired fewer children (MIFS of 6.7) than they eventually fathered (MNCEF of 11.7) and this may be due to other factors that determine reproductive behavior. Such factors in an African context usually include internal family wrangling among the wives in polygynous settings on who produces the highest number of children because of future property inheritance, desire for male children and the attitude to family planning by this group of men<sup>13-16</sup>.

The Mean Number of Living Children (MNLC) for men in this study was 4.2; similar studies of men in Nigeria<sup>14</sup> and

Kenya<sup>23</sup> estimated MNLC to be 4.5 and 4.2 respectively. In West Africa, average family sizes are lowest in Ghana where the MNLC for men was 3.8 while in Egypt (a country in North Africa), the MNLC for men was 3.6<sup>15</sup>. Globally, MNLC is lowest in the developed and high-income economies of Europe, North America, Japan etc, where MNLC for men is generally below 2<sup>15</sup>. Measurement of MNLC in older age groups (50 years and above) gives a more realistic view of reproductive behavior, as most men in this category would have achieved the number of children they desire. Among Ganmo men, MNLC was highest for men in the 50-59 years age group (at 9.2); in the study of Nigerian men by Isiugo-Abanihe,<sup>14</sup> the MNLC for men above 50 years was found to be 7.5, while in Kenya, it was found to be 6.8 for men in 50-54 years age group<sup>23</sup>. As a measure of family size, MNLC only provides a snapshot of reproductive behavior among men, as respondents represented in this measure include old and young men, many of whom had not yet completed their families. Among Ganmo men, characteristics that favored high MNLC values were having no formal education, practice of polygyny, being a Muslim, being a farmer or a driver and being above 50 years of age. The fact that MNLC increased with age among Ganmo men is not surprising because in Africa, as men get older, they marry more wives and have more children to satisfy their reproductive desires.

Among Ganmo men, the factors that favoured having a family size of not more than four children as recommended by the National Population Policy included having at least secondary education, being a Christian, working as a civil servant and having only one wife. On the average, educated men tend to have smaller families because they appreciate the financial implication of supporting large families, they tend to marry later and they tend to adopt the western culture which favors a small family size<sup>14</sup>. The Christian religion advocates one man one wife; therefore the family size tends to be smaller because there is no competition among wives as to who would produce the greater number of children. In Ganmo, men believe that they should be the dominant forces in making decisions about family size, timing of pregnancies and the use/non-use of contraceptive methods. This is not strange because in Nigeria, children are seen as belonging to the husband and since men also have the greater economic input in family upkeep, they believe that they should decide the number of children to be produced. Many studies in Africa confirm male dominance in reproductive health decision making. For example in Nigeria,<sup>14</sup> it was revealed that men's reproductive motivation to a large extent affects the reproductive behaviour of their wives rather than vice-versa, while in Ghana<sup>12</sup>, it was found that spousal influence rather than being mutual is an exclusive right exercised only by the husband with respect to reproductive goals. In Ilorin, Fakeye *et al*<sup>13</sup> discovered that at least one third of women gave male opposition to family planning as the reason for current non-use of modern contraceptive methods, while in Northern Nigeria,<sup>14</sup> women cannot adopt a method of family planning without the husband's consent.

The results of this study indicate that men in Ganmo community have preference for large family sizes buttressing the fact that most men in West Africa desire

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The results of this study indicate that men in Ganmo community have preference for large family sizes buttressing the fact that most men in West Africa desire and have large family sizes in relation to their wives. In Niger, Cameroon and Senegal, it was found that on the average, husbands wanted at least three more children than their wives<sup>15</sup>. Nigerian men are motivated to have many children because of the perceived socio-economic benefits, for continuation of the family name and in the absence of real wealth, having many children is seen as a way of boosting the man's ego. The tradition of child fostering in this part of the world may also encourage the habit of not regulating the number of children to have, since children (and the task of upbringing) are seen as belonging to all members of the extended family<sup>14</sup>. If men must be motivated towards having less number of children, then there must be a conscious effort to increase the general educational status of men, including reproductive health matters. Advocacy on the need for the adoption of modern methods of family planning should be extended to religious and traditional leaders who in turn can positively influence other men in the society. Also, men should have specific information and awareness campaigns targeted at them in the mass media on reproductive health matters. All these activities and programs should be carried out within the framework of the National Population Policy<sup>19</sup> and in compliance with the recommendations of the United Nations Population Fund, which states that, men should be recognized as having a stake in reproductive health matters; that service providers should help break down barriers to men's involvement in reproductive health by making family

Planning clinics more male friendly; that policy makers should give special attention to these issues by ensuring that male services and information are provided and that research in areas of male reproductive health should continue to be supported<sup>15</sup>.

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