

ORIGINAL RESEARCH ARTICLE

A Comparative Study of Factors Influencing Decisions on Desired Family Size among Married Men and Women in Bokkos, a Rural Local Government Area in Plateau State

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Abstract

The total fertility rate of Nigerian women has remained high at 5.7. This is even higher for women in rural areas. Men and women in rural areas desire more children than those in urban areas. This study was aimed at describing and comparing the factors that influence family size decisions among men and women in Bokkos, a rural Local Government Area in Plateau state, Nigeria. A cross sectional descriptive comparative study was used. Data was collected using structured interviewer administered questionnaires. Seventy two percent of women and 83.6% of men who desire to have 1-4 children had at least a secondary school education. Close to seventy percent of both men and women would have fewer children if they are certain of their survival to adulthood. Over 50% of the respondents believe that the husbands should have the final say on family size decisions. Preference for male children influences decisions on family size among men and women in the study population. (*Afr J Reprod Health 2013; 17[1]: 149-157*).

Résumé

Le taux de fécondité des femmes nigérianes est resté élevé à 5,7. Ceci est encore plus élevé pour les femmes dans les milieux ruraux. Les hommes et les femmes dans les milieux ruraux désirent plus d'enfants que ceux des milieux urbains. Cette étude avait pour but de décrire et de comparer les facteurs qui influencent les décisions sur le nombre d'enfants désirés chez les hommes et les femmes à Bokkos, une Administration Locale en milieu rural dans l'Etat de Plateau, au Nigéria à travers une étude transversale descriptive comparative. Les données ont été recueillies au moyen des questionnaires structurés administrés par l'intervieweur. Soixante-douze pour cent des femmes et 83,6% des hommes qui désirent avoir entre 1 et 4 enfants avaient au moins un diplôme d'études secondaires. Près de soixante dix pour cent des hommes et des femmes auraient moins d'enfants s'ils sont certains de leur survie jusqu'à l'âge adulte. Plus de 50% des personnes interrogées pensent que les maris devraient avoir le dernier mot sur les décisions concernant le nombre d'enfants à avoir dans la famille. La préférence pour les enfants mâles influe sur les décisions relatives au nombre d'enfants à avoir chez les hommes et les femmes dans la population étudiée (*Afr J Reprod Health 2013; 17[1]: 149-157*).

Keywords: Factors influencing, desired family size decisions, rural area

Introduction

One of the objectives of Nigeria's National Policy on Population is to reduce the high level of fertility in the country. The guiding principle in achieving this objective is to emphasize the voluntary acceptance of family planning methods, in accordance with fundamental human rights, that all couples and individuals should decide freely and responsibly on the timing, number and spacing of their children to a manageable family size¹.

Nigeria has a contraceptive prevalence of 15% (10% modern method) and has a total unmet need for contraception of 20% with 15% unmet need for spacing and 5% unmet need for limiting.² Low levels of unmet need are typically associated with populations in which women are mostly using contraception and have largely achieved low fertility. There is however, an exception to this connection in that there are some countries in sub Saharan Africa like Nigeria, Chad, Niger and Guinea where the wanted total fertility is high². Thus the simple explanation for the combination

of low contraceptive prevalence and low unmet need as observed in Nigeria is that women want as well as have high fertility. The 2003 and 2008 Nigeria Demographic and Health Survey (NDHS) showed stagnation in the total fertility rate at 5.7, with women and men in rural areas showing high desired number of children^{3,4}.

Maternal Mortality Ratio (MMR) in Nigeria ranges between 800-1100/100,000 live births with Nigeria contributing up to 10% of the world's maternal mortality burden even though it accounts for only 1% of the world's population^{3,5}. An important reason for this high MMR is the high frequency of high risk pregnancies which are associated with pregnancies too frequent and too close. The total fertility rate is used as a proxy to pregnancies too frequent. If Nigerian women desire and actually have smaller families, it will significantly contribute to a reduction in maternal mortality in the country. The more the women survive, the more their children will survive, thus reducing the infant and under five mortality rates.

Large scale surveys on reproductive health issues often queried only women^{6,7}. Thus, most of the available information about reproductive goals and decision making do not represent the views of men, even though they play an active role in the formation and achievement of family size and goals. The 1994 International Conference on Population and Development (ICPD) held in Cairo reminded the world that neither women nor men are likely to enjoy good reproductive health until couples are able to make reproductive decisions together⁸. This establishes a clear policy language about men's participation in family planning and other reproductive health issues. Lack of involvement or cooperation of men in their partner's contraceptive and fertility desires can contribute to unplanned pregnancies with resultant increased maternal morbidity and/or mortality. On the other hand, involvement of men in family size decisions and other reproductive health issues have a positive impact on women and children's health and even the overall health of the family.

Information on the number of children desired and trends in that number lie at the heart of family planning and population policy concerns. In particular, this information can identify populations with demand for services and inform

the interpretation of trends in contraceptive prevalence and fertility. Policy reflections on countries with low contraceptive prevalence like Nigeria focus mainly on access to family planning services and ignore the large family size preferences⁹.

There is therefore the need to obtain detailed information about the structure and evolution of ideal family size desires; and how they are articulated in a rural area. Are they subject to negotiation with the partner? How does educational level of men and women influence family size decisions in a rural community? The answers to these questions make understanding of the factors that influence family size decision among both men and women very important, as this will guide any approach to reducing the total fertility rate in the country with a positive effect on reducing maternal mortality and improved over all development of the country.

The study was therefore conducted to determine and compare the factors influencing family size decisions among married men and women in Bokkos, a rural local government area of Plateau state.

Methodology

The study was conducted in Bokkos local government area, located 77km south west of Jos, the Plateau state capital. It consists of twenty wards with an estimated population of 198,522 from the 2006 census. Ron, Kulere and Musherere are the major languages. The people are mostly subsistent farmers in mainly rural settlements. The major religions are Christianity and Islam with marriage practices mainly monogamy and polygyny. The inheritance pattern is patrilineal. The study employed a cross sectional descriptive design and also compared responses between men and women. The study population was married men and women aged 15-49 years in Bokkos local government area. Those on permanent methods of contraception were excluded. The sample size for the survey was estimated by taking 30% as the proportion of all currently married men and women aged 15-49 years who want a child soon, (Nigeria Demographic and Health survey 2008³), the z statistic at 95% confidence interval

was 1.96, tolerable margin of error was taken as 5% at significance level of 0.05. The minimum estimated sample size for the survey was 323. Multistage sampling technique was used. Ten wards were randomly selected from the list of twenty wards in the LGA. Two villages were randomly selected from each ward from the list of villages that constitute each selected ward. Twenty households were selected randomly from the list of households of the selected villages. Ten men and ten women (not married to each other) from the twenty selected households were interviewed. The next household in the list was selected as replacement whenever the man or woman in a selected household did not meet the inclusion criteria for the study.

A structured questionnaire developed by the researchers was used to obtain information socio-demographic status and fertility preferences from each respondent through interview by trained interviewers, who were students of a school of health technology in the state who could speak the local language and Hausa. The questionnaire contained open and closed ended questions and was structured to determine societal and economic influence on decisions on desired family size. The role of sex preference on family size decisions. Who had the final say on family size decision? the husband, the wife or jointly? The questionnaires were pre-tested to validate the questions at Rahoss village in Riyom local government area of the same state. The researcher also undertook regular supervision of the interviewers during the data collection to ensure that good quality data were collected. The study lasted four weeks, from the beginning to the end of October 2010. Data collected were checked manually for errors and then entered into SPSS 15.0 statistical software and analysed and presented in tables. The chi-square test was done to test for significant association at p values < 0.05 .

Results

Four hundred questionnaires were administered the respondents (200 men and 200 women), but only 377 (still above the minimum sample size estimate) were sufficiently completed to be used

for analysis (184 men and 193 women). This gives a response rate of 94.3%.

Table 1 shows some socio demographic characteristic of the respondents. Farming was the commonest occupation among the respondents (53%) followed by business or trading (20%). Other occupations included: teaching (7.2%), civil servants (11.7%) health worker (1.9%).

The men were better educated than the women, 29.9% of men had tertiary education compared to 8.8% of the women. Thirty seven percent of the men had secondary education compared to 33.7% of the women. This difference in educational level was statistically significant. ($X^2 = 35.016$, $df = 3$, $P = 0.000$). Most (92.0%) of the respondents were Christians while 7.7% were Muslims. The mean age of the respondents was 37.2 years (\pm SD 7.5) for men and 32.6 years (\pm SD 7.5) for women.

The survey showed that 40.2% of married men interviewed had 5 or more children compared to 38.9% of married women. More men (14.1%) than women (11.4%) had seven or more children. This difference was not statistically significant ($X^2 = 1.265$, $df = 3$, $p = 0.738$).

Table 2 shows that women desire more children than men. About 32.1% of women desired six or more children compared to 29.6% of men. Only 19.6% of men gave non numerical responses (whatever God gives) compared with 22.3% of women. These differences in response were not statistically significant.

Table 3 shows the educational level and number of children desired by men. This shows that most of the men who want to have between 1-4 children have either a secondary (42.6%) or a tertiary (41.0%) education. Only about 22% of men with tertiary education desired 5 or more children compared with 31.0% of those with primary education. Thirty six percent of men who gave non-numeric response had only primary education. There was statistically significant relationship between educational level and number of children desired. Similarly, table 4 shows the educational level and number of children desired by women. It shows that most of the women (54.0%) who desired to have between 1-4 children had secondary education. Furthermore, 49.5% of those who desired to have 5 or more children had only primary education. It is also important to note

Table 1: Socio demographic characteristic of respondents

VARIABLE	MEN	WOMEN	
OCCUPATION	Number (%)	Number (%)	
Farmer	92 (50)	111 (57.5)	
Business/trading	31 (16.8)	47 (24.4)	
Civil servant	29 (15.8)	15 (7.8)	
Teaching	22 (12.0)	5 (2.6)	
Health worker	4 (2.2)	3 (1.6)	
Mechanic	2 (1.1)	0 (0.0)	
Motorcyclist	2 (1.1)	0 (0.0)	
Banker	1 (0.5)	0 (0.0)	
Others*	1 (0.5)	12 (3.4)	
Total	184 (100.0)	193 (100.0)	
EDUCATIONAL LEVEL			X² = 35.016
None	14 (7.6)	20 (10.4)	df = 3
Primary	47 (25.5)	91 (47.2)	P = 0.000
Secondary	68 (37.0)	65 (33.7)	
Tertiary	55 (29.9)	17 (8.8)	
Total	184 (100.0)	193 (100.0)	
RELIGION			
Christianity	168 (91.3)	178 (92.2)	
Islam	15 (8.2)	14 (7.3)	
Traditional	1 (0.5)	1 (0.5)	
Total	184 (100.0)	193 (100.0)	

Others* include 12 women who were full time house wives and a man who was a tailor

Table 2: A comparison of the number of children desired between men and women

Number desired	MEN	WOMEN
	Frequency (%)	Frequency (%)
Two	2 (1.1)	2 (1.0)
Three	16 (8.7)	14 (7.3)
Four	43 (23.4)	34 (17.6)
Five	33 (17.9)	38 (19.7)
Six or more	54 (29.3)	62 (32.1)
What God gives	36 (19.6)	43 (22.3)
Total	184 (100.0)	193 (100.0)

$$X^2 = 2.496, df = 5, p = 0.777$$

that 64.6% of those who gave non-numeric response (whatever God gives) had only primary education compared with 6.3% of women with tertiary education. These findings were statistically significant.

The survey also shows that 62% of men compared to 58.5% of women would not have

more children simply because the society honors men and women that have many children. On the other hand, 38.0% of men and 41.5% of women would want to have many children because of the society's respect for men and women with many children. There was no statistical significance in these different responses ($X^2 = 0.456, df = 1, p = 0.499$). Most (70.5%) of the women and men (68.5%) interviewed will have few children to avoid risks associated with pregnancy. Only 31.5% of men and 29.5% of women would not consider this a reason to have fewer children.

Most respondents would have fewer numbers of children if they are sure of their survival to adulthood, (76.1% of men versus 72.5% of women). Both men (55.5%) and women (52.3%) felt that the husbands should have the final say if the decision on the number of children desired varies from that of the spouse, 42.9% of men and 43% of women think that the couple should jointly agree, while 1.6% of men and 4.7% of women

Table 3: Number of children desired by educational level of men

Educational level	1-4 children	5 or more	What God gives
	Number (%)	Number (%)	Number (%)
None	3 (4.9)	8 (9.2)	3 (8.3)
Primary	7 (11.5)	27 (31.0)	13 (36.1)
secondary	26 (42.6)	33 (37.9)	9 (25.0)
Tertiary	25 (41.0)	19 (21.8)	11 (30.6)
Total	61 (100.0)	87 (100.0)	36 (100.0)

$$X^2 = 23.096, df = 6, p = 0.001$$

Table 4: Number of children desired by educational level of women

Educational level	1-4 children	5 or more children	What God gives
	Number (%)	Number (%)	Number (%)
None	1 (2.0)	14 (14.7)	5 (10.4)
Primary	13 (26.0)	47 (49.5)	31 (64.6)
Secondary	27 (54.0)	29 (30.5)	9 (18.8)
Tertiary	9 (18.0)	5 (5.30)	3 (6.3)
Total	50 (100.0)	95 (100.0)	48 (100.0)

$$X^2 = 25.207, df = 6, p = 0.000$$

believe that the wife should have the final say. More women (58.5%) than men (40.2%) were willing to change their decisions on the number of children desired if their spouse want it, this was statistically significant. ($X^2 = 12.663, df = 1, p = 0.000$)

The survey showed that sex preference is more among women than men. More women (51.8%) compared to men (40.8%) would have additional deliveries to get a child of desired sex even after achieving their desired number of children. About 59% of men compared to 48.2% of women would not have additional deliveries to get a child of a particular sex. These responses were statistically significant. ($X^2 = 4.627, df = 1, p = 0.031$).

There was no significant difference between men and women on the number of deliveries to be attempted for a child of desired sex. Among men who would have additional deliveries to have a child of a particular sex, 46.7% of them would attempt 4 or more deliveries compared to 40.4 % of women. Sixteen percent of men compared to 14% of women would attempt 3 deliveries for a child of desired sex (Table 5).

The survey shows that among men and women who would attempt additional deliveries to get a

child of desired sex, a higher proportion of men (46.7%) than women (42.4%) would attempt four or more pregnancies for a male child. This difference was however, not statistically significant. In contrast, among those who would have additional deliveries to get a child of desired sex, only 28.0% of men and 25.3% of women would attempt four or more deliveries for a female child. Thus, both men and women would attempt more deliveries to get a male child than for a female child.

Table 5: A comparison of response of men and women about the number of deliveries to be attempted to get a child of desired sex

Number of Deliveries	Men	Women
	Number (%)	Number (%)
1	8 (10.7)	15 (15.2)
2	20 (26.7)	30 (30.3)
3	12 (16.0)	14 (14.1)
4 or more	35 (46.7)	40 (40.4)
Total	75 (100.0)	99 (100.0)

$$X^2 = 1.333, df = 3, p = 0.721$$

Fifty seven percent of women and 52.2% of men give some consideration to cost of training children in deciding their family size. Over 31% of men and 25.9% of women would give a strong consideration to the cost of training or raising children in taking family size decisions. Expectation of support from children in old age is given some consideration by 57% of women and 48.4% of men, while 35.9% of men compared to 30.6% of women would give it a strong consideration in family size decisions.

Fifty percent of men compared to 56.5% of women give some consideration to the expectation of support from children in the farm, in domestic activities or even economic support when deciding on their family sizes. Expectation for this kind of support is a strong consideration by 33.2% of men compared to 36.8% of women. Only 16.3% of men and 6.7% of women do not take these into consideration when taking family size decisions. These differences in response were statistically significant ($X^2 = 8.536$, $df=2$, $p = 0.014$).

Discussion

As expected for a rural population, farming was the predominant occupation. However, worthy of note is the fact that a higher proportion of the women were farmers compared to the men who had more civil servants. This observation could be explained by the significant difference observed in the levels of education. The men being more educated than the women. This finding reflects the observation from NDHS³ and UNICEF⁵ which show significant differences in education between girls and boys, and this translates to differences in educational level between men and women in adult life. Two important measures of women's status in relation to fertility are women's education and employment in cash earning capacity. These are both important in improving women independence and their ability to be more equal partners in the conjugal unit. This indicates that challenges still lie ahead in achieving the UN millennium development goal of promoting gender equality and empowering women¹⁰, particularly in rural communities in Nigeria.

Our findings indicating no significant difference in the number of children both men and

women had is at variance with literature from northern Nigeria which shows that women tend to have higher number of children than their male counterparts in the same age group due to early marriage, but with time polygamy tends to alter this balance.¹¹ It is however, similar to a study in southern Nigeria, which indicated that educational level particularly among men in rural areas with high illiteracy rates tends to favour higher fertility than in the urban areas¹². This is because the more educated men in the rural areas are relatively wealthier and can afford to have more children even under a polygamous setting. The study in southern Nigeria also indicated that the Nigerian love for children, their polygamous nature, irrespective of their educational attainment and the need for a particular sex of children among others were identified factors responsible for enlarged family size¹².

The study shows that both men and women desired a high fertility (29.3% women and 32.1% of men desire six or more children). This is possibly because of the fact that the study population is a rural population with a high level of illiteracy. This finding is similar to findings from a study among three rural communities in Kaduna state in which 37% of the women cited 5-9 children as ideal¹³. It also reflects the ideal (desired) number of children for rural women in Nigeria of 6.7³.

Furthermore, the study shows that most men (62%) and women (58.5%) will not desire to have many children just because of the society. This means that societal effect on individual fertility is beginning to reduce. This finding is similar to that by some researchers which showed that although the family system is still largely dominated by extended structure, the strong individual kinship ties have begun to undergo serious strain. Child fostering and other means of spreading child rearing cost among relatives are fading out¹⁴. Individuals take responsibilities for their fertility without minding about societal influence or opinion.

Findings from our study indicate that close to seventy percent of respondents would have fewer children to avoid pregnancy related risk to women. This means that both men and women are beginning to realize the burden of pregnancy

related morbidity and mortality in the society and have begun to have some influence on family size decisions among men and women. However, 31.5% of men and 29.5% of women who would not consider pregnancy risk as a factor in family size decisions means that there is still the need to educate the community about the fact that frequent pregnancies increase the chance of a complication developing during one of the pregnancies.

In addition, it was found that over seventy percent of the respondents would have fewer numbers of children if they can be sure of their survival to adulthood. There was no statistically significant difference in the response between men and women ($X^2 = 0.621$, $p = 0.431$). This shows that infant or child mortality still remains an important consideration among men and women in taking family size decisions. The under-five mortality still remains high in Nigeria at 186/1,000 live births⁵. When individuals decide to have a certain number of children, they do so because they believe those children would survive to adulthood. If they have any reason(s) to suspect that one or more of those children would die before adulthood, they would be tempted to have more children to compensate for any likely losses. Studies have shown that child survival is an important determinant of family size¹⁵⁻¹⁷. Even highly educated women will be tempted to have more children to "take care" of any losses to death. Thus, education alone in the face of high infant/child mortality may not lead to significant reduction in fertility rate unless child survival improves. Thus, the African saying that: "do not count your children until measles has passed".

We also found that more women than men were willing to change their decisions on desired number of children if their spouse wants it. This was statistically significant ($X^2 = 12.663$, $p = 0.000$). This reflects the cultural influence on fertility in most Nigerian societies where gender based expectations strongly influence fertility intentions and behaviors of women. Male heads of households reserve the right to make all decisions related to reproduction. The husband is considered as the head of the family, therefore the wife should submit to the man's position concerning family size decisions. The survey also shows that both men (55.4%) and women (52.3%) agree that the

husband should have the final say where the decision on the number of children desired varies from that of the spouse. This finding is similar to that of Agatha et al in Ekpoma Community where 65% of respondents are of the view that the man stands out as the traditional head of the home and therefore the decision maker including reproductive decisions¹⁸. Sometimes important issues are never discussed with wives; even when discussed, the man still takes the final decision. This means that men have an important role to play in fertility reduction, particularly concerning issues like family size and contraceptive use by the woman.

The survey finding that more women (51.8%) than men (40.8%) would have additional deliveries to get a child of desired sex even after achieving their desired number of children though statistically significant ($p = 0.03$), is being interpreted with caution because this may not necessarily mean that women are more inclined to having children with mixed gender than men, but it could be that women view having a mix of both sexes, particularly a male child as an important factor in the security of their marriage, less chance that the man would marry a second wife to give him the child of a desired sex.

The study shows that both men and women would attempt more deliveries to get a male child than for a female child. This finding is similar to studies which showed a high degree of preference for sons than for daughters¹⁸⁻²⁰. Some possible explanation for the existence of son preference are: that parents are typically supported in their old age by son(s), where as girls usually move away from their families, hence a son is more desirable as an investment and the traditional idea that "a boy belongs to us, a girl to someone else" has become widespread. Secondly sons are needed to maintain the family line. This definitely has implication for fertility. The value traditionally placed on a particular sex (male) over the other (female) is an important reason for the low status of women in our society. The male is seen as the only legitimate future successor to the family while the role of the female is to be seen as no more than a productive mother and house keeper.

Our study shows that both men and women consider cost of training children in taking family

size decisions. This is despite the rural/agrarian nature of the study area. This finding tends to contradict their reported high desired number of children, indicating that though cost of training may be considered, other factors may override economic considerations in decision on desired family size. A study from rural Kenya showed that cost of training children is not an important factor in family size decision, since it is not as high as in urban areas²¹. More so, the opportunity for productive employment of children are higher in rural than urban areas. The survey also shows that expectation of support from children in old age is a common consideration in family size decisions. Without a formal social security system in Nigeria and indeed most African countries, couples depend on the support from their grown children when they are old and incapable of supporting themselves. This leads to high fertility with the hope that at least one of them particularly a male child would be able to support them in old age.

Over 80% of men and more than 90% of women give consideration to support from children on the farm, domestic activities and economic support when deciding on family size. This is most likely because the study was conducted in a rural area and most of the people interviewed were farmers. Couples in rural areas could easily recruit their children for farming, petty trade, fetching firewood, water and other housekeeping activities. Thus, children are an important source of labour especially in rural communities; this has a positive influence on fertility.

In conclusion, our study indicates that similar factors influence family size decisions among men and women in Bokkos. These include educational level, high child mortality, preference for male children, demand for children as a source of labour and support in old age in addition to poor decision making capacity of women on fertility issues. There is therefore need to step up measures to reduce child mortality, improve the status of women through education and women empowerment and provide some social security for the aged.

The avoidance of couples in our study enable us to compare the responses of men and women independently (we hope), however, this limits the

examination of concordance of responses, future studies may assess this.

Contribution of Authors

The study was conceived and designed by MLK and ISH, MNS and MLK collected and analysed the data, MLK and ISH prepared the manuscript. MNS critique and finalized the manuscript.

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