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FERTILITY DESIRES OF YORUBA COUPLES OF SOUTH-WESTERN NIGERIA

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Summary. Using the matched wife–husband (763) sample from the data collected from Ogbomoso and Iseyin towns in Oyo State, Nigeria, this paper examines factors associated with couples' fertility intention. The analysis used logistic regression models for predicting the effects of selected socioeconomic background characteristics on a couple's fertility intention. Results indicate high levels of concurrence among husbands and wives on fertility intention. Where differences exist, husbands are more pronatalists than their wives. About 87% of pairs of partners reported similar fertility preferences. Of these couples, 59·5% wanted more children while only 27·8% reported otherwise. The logistic regression models indicated that a couple's fertility intention was associated with age, education, place of residence, frequency of television-watching and number of living children. Therefore, programme interventions aimed at promoting fertility reduction in Nigeria should convey fertility regulation messages to both husbands and wives.

Introduction

There is some degree of inadequacy of research to answer some important questions about fertility behaviour of Yoruba-speaking people of South-western, Nigeria. The Yoruba experience high fertility rates and low contraceptive use as compared with the world standard (Bankole, 1995; Feyisetan, 2000; Oyediran & Isiugo-Abanihe, 2002). High fertility levels are of major concern to planners, researchers and policy-makers in most sub-Saharan countries due to the negative impact high population growth has on socioeconomic development. Adequate understanding of fertility expectations and related behaviour and subsequent policy design requires detailed study of social processes at the domestic level. This paper examines some socio-demographic factors that influence couples' fertility among the Yoruba of Nigeria.

The Yoruba family is patrilineal, patrilocal and patriarchal in structure, with males exerting authority over their female counterparts and wives on all matters, especially reproductive health issues (Bankole, 1995; Akande, 1997; Feyisetan *et al.*, 1998). Men and their kinsmen are the decision-makers on issues relating to

reproductive health while their women cooperate. In this society, women hardly have a say on matters relating to the timing of the next birth, the number of children and when to stop childbearing. Because the views of women who bear the burden of pregnancy and childbirth are hardly sought, most often the number of children a woman bears is perceived to reflect the desired fertility of her husband and his relatives (Caldwell & Caldwell, 1987).

However, the relative decline in men's resources due to economic downturn has increased women's contribution to family resources as well as their participation in decision-making, including reproductive health matters (Feyisetan, 2000). As a result of these changes in the economic environments of households and increase in egalitarian cultures, a few studies have found that partners have discordant responses on reproductive health intentions and behaviours (Bankole, 1995; Becker, 1996; Oyediran & Isiugo-Abanihe, 2002). This implies that the desires and intentions of both marital partners are important in predicting future contraceptive and child-bearing decisions. For instance, Bankole (1995) observed that a husband's desire is dominant in predicting a couple's behaviour when the number of living children is small, while the wife's desire becomes dominant as the number of children increases. Therefore, current efforts in demographic and health surveys should be geared towards the use of the husband–wife dyad (marital partners) rather than individuals as a unit of analysis.

Traditionally, fertility and family planning research and programmes have focused on women's behaviours. Gender differences in fertility preferences have been attributed to the relative position of men and women in male-dominated cultures (Coombs & Chang, 1981; Koenig *et al.*, 1984; Mitra *et al.*, 1985; Mason & Taj, 1987), and might be reduced through close interaction on fertility expectations of individuals in the marital dyad. There has recently been a revival of interest in the relative roles played by men and women in reproductive decisions, particularly those concerning number of children and fertility regulation (Mott & Mott, 1985; Ezeh, 1993; Dodoo, 1993; Bankole, 1995; Bankole & Singh, 1998; Feyisetan, *et al.*, 1998; Odusola, *et al.*, 1998; Zulu, 1998). In addition, other scholars have tried to explain and understand the reproductive health behaviour within the context of the microenvironment of the marital dyad (Bankole, 1995; Becker, 1996; Becker & Robinson, 1998; Feyisetan, 2000). This recent effort is aimed at meeting the challenges of the International Conference on Population and Development (ICPD), which broaden the arena of reproductive health previously limited to family planning (Becker & Robinson, 1998, Oyediran & Teller, 2003).

Since marital fertility involves participation of the wife and husband, who may differ in their reproductive goals (in terms of number and sex composition of children, and timing of having the children), successful planning and decision-making about fertility size and use of contraceptives requires effective communication between both marital partners (Marsiglio & Menaphan, 1987; Nyblade & Menken, 1993; Gage, 1995; Feyisetan, 2000).

Consequently, in seeking to understand the determinants of fertility behaviour in complex societies, such as the Yoruba, scholars are increasingly turning their attention to the micro-environment within which women, men and couples live, based on the premise that those contexts set norms that guide fertility behaviour (Entwisle

et al., 1986; Smith, 1989). However, the present paper is concerned with providing some explanations on the determinants of couples' fertility desires among the Yorubas for whom fertility decline has set in.

Data and Methods

The data used in this paper were derived from a larger survey on spousal communication and fertility behaviour. The survey was conducted in Ogbomoso and Iseyin towns in Oyo State, one of the south-western states of Nigeria, inhabited predominantly by the Yorubas. Ogbomoso and Iseyin are the second and fifth largest towns in Oyo State respectively, with Ibadan, the state capital, being the largest (National Population Commission, 1991). According to the 1991 census, the population of Ogbomoso metropolis was 157,222, while that of Iseyin stood at 79,838. The population in each town is equally distributed between males and females. Ogbomoso derives its growth from net migration and natural increase, while natural increase contributes mainly to population growth in Iseyin.

The sample population comprised couples, defined as a married man and his wife, or wives in the case of polygynous unions. Marriage included either legal unions or where two people were cohabiting in a consensual union. Women of reproductive age (15–49 years) were selected, and their spouses were interviewed irrespective of their age. It should be noted that the presence of a man and woman who were married to each other (that is a couple, legal or cohabiting), with the woman (women) being of the reproductive age, determined the eligibility of the household. A couple data set was created, comprising the husband's characteristics, and other fertility-related matters linked to those of his wife or wives. However, it became a Herculean task to construct a couples' data set because of polygyny. Finally, each union was considered separately, irrespective of the number of wives of the man. The merging of records was done through the husband's identification number, which was present in both husband and wife data files.

A multi-stage probability sampling procedure was adopted in selecting respondents for the survey, using the enumeration maps prepared by the National Population Commission for the 1991 census. Each town was stratified into three clusters based on the residential patterns that reflect the socioeconomic status of the residents, at the first stage. The clusters comprised elite, transitional and traditional areas. The elite cluster represented areas where single families occupied most of the housing units and the residents belonged to the relative high-income stratum and were better educated. The transitional cluster consisted largely of areas where families live in rented rooms or apartments. The traditional cluster represented the indigenous areas, where a fairly large group of people or families from the same lineage reside together in a housing unit.

In each cluster, supervisory areas were randomly selected at the second stage, and enumeration areas were selected within the supervisory areas at the third stage. Then households were systematically selected within each enumeration area. In each of the selected households, a currently married man and all his spouses aged 15–49 were interviewed. Thus, in a polygynous household, the husband was interviewed as well as all of his wives who were in the household. Men with

multiple wives were also asked several questions with reference to each of their wives.

Both household and individual schedules were used. Besides providing information on household structure and characteristics of members, the household schedule was used to identify the eligible respondents to whom the individual schedules were administered. The eligible respondents' schedule covered the respondents' characteristics, marriage history, fertility histories, contraceptive use and reproductive related communications with spouses and exposure to mass media and membership of social clubs or associations. Interviewers were of the same sex as the respondents, and interviewed husbands and wives separately. If both partners were at home during the interviewer's visit, the two of them were interviewed simultaneously. The interviewers made a return visit to interview the spouse who was absent at the first visit. Seven hundred and forty-nine husbands and 788 wives were interviewed. The current paper is based on data from 763 married couples for whom there was complete information on the variables of interest.

Bivariate and multivariate methods of analysis were employed. Bivariate analyses were undertaken to identify patterns of associations between spouses' characteristics and family size preference. This approach indicates the 'gross effects' of the background characteristics on the measure of fertility behaviour. Logistic regression models were then used to determine the 'net effects' of the background variables on the probability that a couple would want no more children. The dependent variable takes a value of 1 if both partners reported that the two of them (husband and wife) desired not to have more children and 0 if either or both of them reported a desire for more children. The explanatory variables include individual and joint characteristics of couples, namely social club affiliation, exposure to mass media, mate selection, place of residence, religion, education and age (age difference between spouses). The logistic regression model was used for easy interpretation of the odds ratios. The logistic regression function has the form:

$$\mathrm{In}(p/1-p)=B_0+B_1X_1+\ldots+B_kX_k,$$

where p is the probability that a couple desire no more children, $1-p$ is the probability that a couple want additional children, B_0, B_1, ... B_k are regression coefficients, and X_1, X_2, ... X_k are factors. The exponential of the regression coefficients of the parameter estimated would give the odds ratios in the logistic regression models.

Four hierarchically structured regression models were estimated to describe how the likelihood that a couple would want no more children varies by different categories of explanatory factors. Model 1 treats couple intention not to have more children as a function of conjugal relationship or egalitarian power relation, by examining the relative importance of couple communication on fertility intention and contraceptive use as predictors of couple's fertility desire. Model 2 considers fertility intention as a function of gender power relation, by examining the relative importance of respondents' characteristics as predictors of a couple's fertility desire. Model 3 adds a measure of community influence – place of residence – to Model 2. Finally, Model 4 introduced two measures of diffusion of information and social network – exposure to mass media and membership of a social club, respectively – to Model 3.

Results

Profile of respondents

Table 1 shows the basic individual characteristics of husbands and wives. The mean age of husbands at the time of interview was 40·1 years, and that of their wives was 33·4 years. Husbands were older than their spouses. This is in expectation of Yoruba tradition of age-related deference. The husbands were found to be generally more educated than their wives. The relatively high levels of educational attainment by both men and women in the study area could be attributed to the free universal primary and almost free universal secondary educational system that the state has implemented for several years. The majority of respondents are Christians (husbands and wives). The husbands and their wives do not differ markedly in their religious composition. A larger percentage of husbands than their spouses had been exposed to radio in the past three months. The frequency of exposure to media indicates that husbands have generally listened to radio more than their spouses. About 88% of the husbands were members of an association compared with 76·7% of wives.

More detailed comparisons of age, education, religion, media exposure and social network are presented in Table 2. Spousal differences in these socio-demographic characteristics are important issues to be considered in an analysis of fertility behaviour and preference among the Yorubas. Approximately 60% of women were 5 or more years younger than their husbands. This implies that the majority of wives in this sample are in the younger age groups and by tradition were expected to show some deference to their husbands. Altogether, only three husbands were younger than their wives, and eight women were the same age as their husbands. This is contrary to the norms of men marrying younger women. It could be that the men inherited these women after the death of a previous husband. The data on education in Table 2 also confirm the observations from Table 1 that the husbands are generally more educated than their wives. By comparing reported levels of educational attainment, the data show that 9·2% of husbands had lower levels of education than their wives and 27·5% of wives had lower levels of education than their husbands. For almost two-fifths of couples, both partners had primary or no education. The study reveals that for almost 29% of the couples, there is a difference in the religious orientations of the husband and wife.

Fertility intentions

The results reveal that 87% of the couples demonstrated similar fertility preference. Of these couples, 59·5% wanted more children while only 27·8% reported wanting no more children. With a kappa-statistic of 0·72, the finding suggests there is a fairly high level of agreement between partners in their fertility intention. The higher proportion of the couples who desired a large family is consistent with earlier results (Bankole, 1995; Odusola *et al.*, 1998).

The importance of socio-cultural and demographic variables affecting fertility intentions and behaviour of the couples was assessed in terms of the individual and shared characteristics of couples who reported wanting more children compared with those who wanted no more children. Tables 3 and 4 show the percentage of couples

Table 1. Percentage distribution of respondents by background characteristics

Background characteristic	Husbands	Wives
Husband's age		
<35	26·7	
35–44	43·0	
45–55	30·3	
Wife's age		
15–24		9·4
25–34		47·2
35–49		41·5
Education		
None	12·1	17·3
Primary	28·3	35·3
Secondary	28·8	25·8
Post-secondary	30·7	21·6
Religion		
Christian	53·8	61·9
Muslim	27·1	35·5
Traditional	17·0	2·2
Other	2·2	0·5
Type of union		
Monogamous	94·9	85·2
Polygynous	5·1	14·8
Age at marriage		
<25	19·4	63·2
25–34	72·8 (28·3)[a]	36·6 (23·0)[a]
35+	7·8	0·0
Social affiliation		
Yes	87·6	76·7
No	12·4	23·3
Frequency of listening to radio		
Regularly	60·3	37·3
Seldom	39·7	52·2
Never	0·0	10·5
Frequency of watching television		
Regularly	22·2	15·8
Seldom	51·1	44·8
Never	26·7	39·4

[a]Numbers in parentheses represent the mean age at first marriage among men and women respondents.

Table 2. Percentage distribution of couples by joint characteristics of partners

Relative characteristic	Percentage of couples
Age difference between husband and wife (years)	40·9
0–4	40·1
5–9	19·0
10+	
Husband's vs wife's education	
Husband's less than wife's	9·2
Husband and wife same level	63·3
Husband's higher than wife's	27·5
Joint education of partners	
Both partners primary or below	37·0
One partner primary or below, other secondary or higher	19·3
Both partners secondary	14·8
One partner secondary, other post-secondary	9·2
Both partners post-secondary	19·8
Joint religion affiliation	
Both Christian	51·2
One Christian, other Muslim or traditional	12·0
Both Muslim	17·6
One Muslim, other traditional	16·7
Both traditional	2·2
Type of marital union	
Monogamous	91·3
Polygynous	8·7
Social affiliation	
Both member of association	72·2
One partner member of association	20·5
Neither partner a member	7·2
Listening to radio	
Both listened	29·5
One partner listened	38·5
Neither listened	42·0
Watching television	
Both watched	8·4
One partner watched	21·3
Neither watched	70·3

by their fertility preference, according to selected background variables: study town, age, education, religion, type of union, place of residence, spousal communication, media exposure, spousal age difference and shared couple characteristics (education,

religion). Table 3 reveals that age is negatively related to preference for additional children. The proportion of couples who want to have more children is higher among the couples where husbands and wives are younger. For instance, among couples where husbands are below 35 and 45 years and above respectively, 92% and 27·6% want more children.

As shown in Table 3, individual education of partners has an inverted U-shaped relationship with fertility intention. The finding implies that couples at the lowest and highest levels of education are less likely to want more children than those with secondary education. For example, 76% of husbands with secondary education, and 69% of wives with the same level of education reported that both they and their spouses wanted more children. The percentages of husbands and wives with no formal education where both partners wanted more children are 50·5% and 50·4% respectively.

Table 3 shows that a couple's fertility desire is also influenced by religious affiliation. The study indicates that Christian couples are most likely to want to end childbearing; Muslims and traditional believers tended to want to have more children. For instance, among couples interviewed where husbands and wives are Christians, 53·2% and 55·3% wanted additional children as against 65·0% and 68·7% husbands and wives who are Muslims respectively.

There is no difference in the level of couples' agreement on fertility intention with regard to the type of union. For example, about 87·2% of couples in monogamous unions agreed about their fertility intention compared with 88·9% among those in polygynous marriages. However, more couples in polygynous unions (71·4%) than those in monogamous unions (58·4%) wanted more children. Conversely, the proportion that wanted to stop childbearing was 28·8% among monogamous unions and 17·5% among those in the polygynous unions.

The table further reveals that couples' fertility preference differs by husband–wife interaction. About 59% of couples that discussed number of children to have wanted more children, while 61% of those who had no such discussion wanted more children. The difference, however, is not statistically significant. This finding is consistent with earlier studies that both husbands and wives in sub-Saharan African societies want a large family (Bankole, 1995; Odusola, *et al*., 1998) among those with little communication.

Table 4 reveals that couples' fertility intention varies according to their level of exposure to media. It is evident from the table that couples where both partners listened to the radio regularly in the three months preceding the survey were more likely to desire to end childbearing than couples where only one of the partners listened to the radio. About 34·2% of the couples who reported joint regular exposure to radio messages want to end childbearing compared with 24·3% of individual partners who listened to the radio. Regular exposure to television also seems to have the expected effect on fertility intentions: 35% of couples of whom either both or one watched television regularly desired to stop childbearing compared with 25% of those who seldom watch television.

The results in Table 4 indicate that a couple's shared characteristics are associated with fertility preference of married partners among the Yoruba of Nigeria. Shared characteristics such as education, religious affiliation, spousal age difference and media exposure were identified as key background factors determining couples'

Table 3. Percentage distribution of couples by fertility intention according to selected background characteristics

	Fertility intention			
	Both want more	Husband only wants more	Wife only wants more	Both want no more
Husband's age (years)				
<35	92·3	5·1	0·5	2·0
35–44	61·4	10·8	5·4	22·5
45+	27·6	5·4	8·6	58·4
Wife's age (years)				
15–24	92·5	6·0	—	9·3
25–34	76·8	7·6	4·0	11·6
35–49	31·8	8·4	7·0	52·8
Husband's education				
None	50·5	6·5	11·8	31·2
Primary	52·7	8·7	4·3	34·3
Secondary	76·1	7·7	1·9	14·4
Tertiary	54·0	7·1	5·8	33·0
Wife's education				
None	50·4	5·9	8·4	35·3
Primary	57·0	8·9	4·3	29·8
Secondary	68·6	9·3	4·1	18·0
Tertiary	59·3	4·9	4·9	30·9
Husband's religious affiliation				
Christian	53·2	7·8	5·2	33·8
Muslim	65·0	9·6	4·6	20·8
Traditional or other	68·9	4·7	5·4	20·9
Wife's religious affiliation				
Christian	55·3	7·6	5·0	32·1
Muslim	68·7	7·5	4·8	19·0
Traditional or other	40·0	10·0	10·0	40·0
Type of marriage				
Monogamous	58·4	8·2	4·6	28·8
Polygynous	71·4	1·6	9·5	17·5
Wife's position				
Sole	58·0	8·6	4·5	28·9
Senior	64·5	—	6·5	29·0
Junior	78·1	3·1	12·5	6·3
Place of residence				
Elite	44·4	14·6	9·7	31·3
Transitional	63·8	8·4	3·8	24·0
Traditional	62·6	3·6	4·0	29·8
Discussion about number of children				
Yes	58·8	8·1	4·4	28·8
No	61·0	7·1	5·8	26·1
Study town				
Iseyin	62·6	8·5	4·8	24·1
Ogbomoso	57·4	7·1	5·2	30·3

Table 4. Percentage distribution of couples by fertility intention according to selected shared background characteristics

	Fertility intention			
	Both want more	Husband only wants more	Wife only wants more	Both want no more
Spousal age difference (years)				
0–4	68·4	8·5	3·4	19·7
5–9	57·7	5·3	4·6	32·4
10+	45·9	11·1	8·1	34·8
Joint education of partners				
Both primary or below	49·4	7·5	6·4	36·7
One primary or below, other higher	69·2	9·8	4·9	16·1
Both secondary	73·1	8·3	0·9	19·6
One secondary, other tertiary	66·2	7·4	5·9	20·6
Both tertiary	55·1	5·4	5·4	34·0
Husband's versus wife's religion				
Same religion	55·1	8·3	5·6	30·9
Different religions	70·4	6·1	3·8	19·7
Joint religion of partners				
Both Christian	53·2	7·7	5·3	33·9
One Christian, Muslim or traditional	65·2	7·9	3·4	23·6
Both Muslim	62·6	10·6	5·7	21·1
One Muslim, other traditional	74·2	4·8	4·0	16·9
Both traditional	43·8	6·3	12·5	37·5
Couple's media exposure (radio)				
Both listen	56·6	4·6	4·6	34·2
One partner listens regularly	60·0	10·0	5·7	24·3
Both seldom or never listen	61·3	7·8	4·3	26·5
Couple's media exposure (television)				
Both watch	55·0	6·7	3·3	35·0
One watches regularly	51·3	6·6	6·6	35·5
Both seldom or never watch	62·1	8·3	4·5	25·1

fertility preference. It was observed that a commonality in educational background of couples has an inverted U-shaped association with couples' fertility desires. The finding shows that among couples where both partners had primary education or below, 49·4% wanted to have more children while among couples where both partners had secondary education 73·1% wanted more children. Table 4 also shows that the percentage of couples reporting that they want more children is negatively related to spousal age difference.

It is further observed that the percentage of couples who still want more children is lower among couples where both partners are traditional religion adherents than among couples who are Christians or Muslims. For example, 43·8% of couples that are both traditional religion adherents reported wanting more children. The corresponding percentages of couples that are either Christians or Muslims and wanting more children are 53·2% and 62·6% respectively.

Multivariate analysis

The fertility intention of a couple, that is whether or not both partners in a marital union desire to have another child, is used as a proxy for reproductive behaviour. To derive this, husbands were asked whether they intend to have more children with a particular wife (in the case of polygynous unions) and similar questions were asked of the spouses. The matched responses from both husband and wife in the marital dyad were used to construct a couple's fertility desire. In the construction of a couple's fertility desire, two situations are discernible: (1) either both or one wanted to have more, and (2) both partners desired to have no more children.

The result indicates that the majority of couples in the study population wanted more children. For instance, 72% of couples – that is both partners – reported a desire for more children whereas only 28% desired no more children. The higher proportion reported for those who have a preference for an additional child is consistent with earlier findings (Bankole & Singh, 1998; Odusola *et al.*, 1998; Feyisetan, 2000). It is also in line with the finding that a high proportion of both husbands and wives want a large family in sub-Saharan Africa, including the Yoruba-speaking people.

In order to determine the net impact of socio-demographic characteristics of individuals and couples, logistic regression models are used (Tables 5 and 6). For the logistics regression models, the dependent variable was whether both partners desired not to have additional children or otherwise. The dependent variable was dichotomous and hence assumed a value of 1 if the couples want no more children, and zero if both/either wants more children. Overall, four equations are estimated and fit well, with a likelihood ratio test statistic for goodness of fit being not significant at the 1% level.

The desire to stop childbearing differed notably according to the level of husband–wife discussion about family planning. Couples who jointly reported discussion about family planning are about 1·6 times more likely to want no more children than those who did not report discussion, probably because couples who decide that they want no more children are more likely to talk about family planning, since they need to do something to prevent further conception. This finding is statistically significant. In the subsequent models, despite the inclusion of other variables such as community variables, social affiliation and exposure to media, the odds ratio does not change greatly but remains significant. The other communication variable does not have a significant effect on the couples desiring no more children.

Other factors found to have a significant effect on the desire to end childbearing are individual age, husband's education, number of living children, and husband's media exposure in the three months preceding the survey. Current age of both husbands and wives has a positive and significant effect on the desire not to have

Table 5. Logistic regression showing the odds for couples who reported wanting no more children by selected husband's and wife's individual characteristics

Variable	Model (1)	(2)	(3)	(4)
Spousal communication about family planning				
Yes	1·64**	2·15**	2·30***	2·43***
No (Ref.)	1·00	1·00	1·00	1·00
Spousal communication about fertility				
Yes	0·93	1·19	1·05	0·96
No (Ref.)	1·00	1·00	1·00	1·00
Husband's age		1·05**	1·05**	1·03
Wife's age		1·13***	1·14***	1·17***
Husband's education				
None (Ref.)		1·00	1·00	1·00
Primary		0·88	0·98	0·82
Secondary		1·55	1·70	1·31
Tertiary		4·09**	4·73**	3·00*
Wife's education				
None (Ref.)		1·00	1·00	1·00
Primary		1·21	1·19	1·05
Secondary		0·79	0·80	0·62
Tertiary		0·70	0·72	0·50
Husband's religion				
Christian (Ref.)		1·00	1·00	1·00
Muslim		0·74	0·80	0·81
Traditional and other		0·56	0·60	0·72
Wife's religion				
Christian (Ref.)		1·00	1·00	1·00
Muslim		0·81	0·65	0·55
Traditional and other		2·24	2·21	2·92
Type of union				
Monogamous (Ref.)		1·00	1·00	1·00
Polygynous		0·63	0·55	0·70
Number of living children		6·58***	6·88***	6·95***
Study town				
Iseyin (Ref.)			1·00	1·00
Ogbomoso			0·65	0·65
Place of residence				
Elite (Ref.)			1·00	1·00
Transitional			0·54*	0·58
Traditional			0·79	0·84

Table 5. *Continued*

Variable	Model (1)	(2)	(3)	(4)
Husband's listening to radio				
Regularly				2·50*
Otherwise (Ref.)				1·00
Wife's listening to radio				
Regularly				1·19
Otherwise (Ref.)				1·00
Social affiliation				
Both club members (Ref.)				1·00
One or none club member				0·89
− 2 log likelihood	417·96	225·12	223·45	212·27
Model chi-squared	6·51	340·26	343·60	347·38
N	713	713	713	713

*p=<0·10; **p=<0·05; ***p=<0·01.
Ref.=reference group.

additional children. As predicted, the older the husbands or wives, the more likely they are to want no more children, an indication that older couples may have actualized their desired family size. As expected, husband's educational level has a positive effect on the likelihood of wanting no more children, but only the coefficient for tertiary education is statistically significant. Couples whose male partners have had tertiary education are four times more likely to want to end childbearing than those whose male partners had no schooling. The significance level remains after controlling for other variables in Models 3 and 4. However, the wife's level of education does not have the expected effect on the couple's fertility intention, and nor is the relationship statistically significant.

Wife's religious affiliation has an unexpected association with couple's desire to end childbearing. Couples whose female partners practise Islam are less likely than those with Christian female partners to desire not to have an additional child. The study reveals that couples in polygynous unions are less likely to want to end childbearing, relative to their counterparts in monogamous unions. Consistent with prior research, the number of children alive is critical for wanting to end childbearing. This may imply that the high responsibilities that usually accompany a large family size might have contributed to the desire to limit births among those with a large living number of children. The impact of number of living children remains significant after controlling for other variables.

Location of residence in a particular town also tends to have a bearing on the desire to limit childbearing. That is, couples in the transitional and traditional areas

Table 6. Logistic regression showing the odds for couples who reported wanting no more children by selected joint couple characteristics

Variable	Model (1)	(2)	(3)	(4)
Spousal communication about family planning				
Yes	1·63**	1·85**	1·99**	1·84*
No (Ref.)	1·00	1·00	1·00	1·00
Spousal communication about fertility				
Yes	0·93	1·27	1·18	1·16
No	1·00	1·00	1·00	1·00
Spousal age difference		1·04*	1·04	1·03
Joint education of partners				
Both primary or below (Ref.)		1·00	1·00	1·00
One primary or below, other secondary or above		0·68	0·69	0·69
Both secondary		0·78	0·79	0·58
At least one tertiary, other secondary		0·99	1·02	0·80
Both tertiary		2·68***	2·82***	1·75
Joint religious affiliation of partners				
Both Christian (Ref.)		1·00	1·00	1·00
One Christian, other Muslim or traditional		0·37**	0·39**	0·37**
Both Muslim		0·50**	0·41**	0·41**
One Muslim, other traditional		0·38***	0·33***	0·27***
Both traditional		0·93	0·86	1·60
Type of union				
Monogamous (Ref.)		1·00	1·00	1·00
Polygynous		0·69	0·64	0·91
Number of living children		12·23***	12·12***	12·84***
Study town				
Iseyin (Ref.)			1·00	1·00
Ogbomoso			0·74	0·74
Place of residence				
Elite (Ref.)			1·00	1·00
Transitional			0·76	0·78
Traditional			1·02	1·00
Couple's media exposure (radio)				
Both listen regularly				2·32***
Both seldom or never listen (Ref.)				1·00
Couples' media exposure (television)				
Both watch regularly				0·95
Both seldom or never watched (Ref.)				1·00

Table 6. *Continued*

Variable	Model (1)	(2)	(3)	(4)
Social affiliation				
Both club members (Ref.)				1·00
One or none a club member				0·83
− 2 log likelihood	417·96	252·53	251·74	236·39
Model chi-squared	6·51	285·43	287·01	283·35
N	713	713	713	713

*p=<0·10; **p=<0·05; ***p=<0·01.
Ref.=reference group.

are less likely to desire to limit the number of children relative to those in elite areas. The traditional values attached to a large family size may still be in vogue among couples residing in the two former residential areas. The relationship persists across all models and is not significant when couple's education and religion are controlled.

Among the media exposure variables included in Model 4, only the frequency of husband's regular exposure to both radio and television had a significant effect on the probability of couples wanting to end childbearing. This finding underlines the importance of providing men with information, education and counselling on the needs to limit their family size. The effect of wife's exposure to media is in the expected direction but is not significant. The analysis indicates that there is no significant variation in the desire to limit childbearing according to membership of associations by couples.

Table 6 presents the logistic regression models showing the odds for couples who reported wanting no more children by the shared characteristics of husbands and wives. The first equation in Table 6 shows that only one of the spousal communication variables has a significant positive relationship with the desire to limit childbearing. The inclusion of other independent variables in Models 2 to 4 increases the odds ratio, while spousal communication about number of children has a statistically significant effect only in Model 4. The finding draws attention to the fact that spousal communication about family planning is an important consequence of couples' desire to limit their fertility. The study reveals that couples who decide to have no more children are more likely to talk about the mechanism that would enable them to achieve their preference. Therefore, programme planners and managers should integrate inter-spousal communication on use of family planning methods as a component of reproductive health, particularly where there is evidence of a high level of 'unmet need' for contraception.

In the second model, age difference between partners was found to exert a more significant impact on the likelihood that both partners would end childbearing. The odds ratio of age difference between partners does not change considerably after

controlling for other explanatory factors, and in Models 3 and 4 it ceases to be statistically significant. Commonality in the educational attainment of couples has the expected direct association with the desire to limit childbearing only among couples where both partners have tertiary education. This is an indication that demographic innovation is well established in the study areas at a relatively high level of education.

Table 6 reveals that the common/shared religious affiliation of partners is a significant factor that influences the likelihood that partners will desire to limit childbearing. Models 2 to 4 show that couples with both partners practising Islam, or who belong to any other religion, are significantly less likely than their Christian counterparts to want no more children. It is interesting to note that couples where both partners are Muslims are the least likely to want to limit childbearing. The difference between Muslims and adherents of others religious may reflect the pronatalist tendency that is common among the Islamic faithful. This phenomenon is due to the fact that Islam supports polygyny and the main reason why men marry more than one wife is to have a large family. In addition, the competition that is common among wives in polygyous unions in terms of childbearing and status in the household may also explain the difference in the desire to limit childbearing between Muslims and non-Muslims.

Similarly, type of union, number of living children, study town, location of residence, social network, and frequencies of either listening to the radio or watching the television show the same pattern of relationship, as discussed in Table 5, with a few exceptions. The data in Table 6 show that the only significant exposure to media occurs when both partners listen to the radio regularly. For instance, couples where both partners reported listening to the radio regularly in the past three months preceding the survey are 2·32 times more likely to want no more children than their counterparts who seldom or never listen to the radio.

Discussion

The findings of this study reveal a high level of spousal agreement on fertility intention among 87% of couples who reported similar fertility preferences. Of these couples, 59·5% wanted more children while only 27·8% agreed that they did not want any more children. The higher proportion of couples who desired a large family is consistent with earlier studies that reported strong pronatalist attitudes among the Yoruba (Bankole, 1995; Akande, 1997). Also, the result indicates that husbands have a preference for higher fertility than their spouses, particularly among couples in monogamous marriages, and wives in polygynous relationships wanted more children. The findings are largely supportive of the inadequacy of using only women's responses on demographic behaviour to represent husbands or couples, particularly in male-dominated cultural contexts such as the Yoruba. In male-dominated societies, women's contribution to household decision-making processes is minimal.

An important measure of reproductive behaviour is the respondent's preference to have or not to have additional children. The major objective of using this measure of reproductive preference is to predict fertility among Yoruba couples. Using fertility intention would assist programmers and policy-makers to predict contraceptive and fertility behaviour among individuals and couples. In addition, it is commonly used

in the literature to estimate the unmet need for family planning. However, a major problem of the index is how to collect information on each wife of a man with more than one wife. But effort was made in this study to find out from such men whether they want to have more children with each of their wives.

The findings suggest that the fertility preferences of marital partners of the Yoruba-speaking people of Nigeria are influenced in important ways by a myriad of factors operating at the individual, community and societal level. The study reveals significant associations between couple's fertility desires and individual and shared characteristics of marital partners. Factors such as spousal communication about family planning, husband's age, number of living children, measures of diffusion of information, especially the radio, religious affiliation, education and spousal age appear to have a strong influence on couples' fertility intention.

As in many prior studies, some of the strongest predictors of couples' fertility intention are socio-demographic factors of both marital partners. It cannot be determined from the present study whether social normative factors influence couples' fertility intention; nevertheless, the findings lend strong support for reproductive health programmes being directed to both husband and wife. The findings on education are noteworthy: it was expected that couples with close educational attainment would have a higher preference for wanting to stop childbearing, and the analyses confirmed this association. However, the effect of spousal communication on family planning may account for the unexpected difference in the fertility intention of highly educated and low literate couples, because at higher levels of education partners may appear to be more comfortable discussing issues over which decision-making power is traditionally regarded as within the purview or domain of men. In addition, the improved educational achievement among both females and males in recent years, which came about as a result of universal free education that enhanced the possibility of working outside the home, might have contributed significantly to the level of inter-spousal communication reported in the study communities. The less educated may be considering the cost of raising children in terms of educational cost because the average Yoruba man or woman wants their children to have a better education.

The results suggest that the husband's level of education matters more than the wife's education in determining marital fertility preference among the Yoruba, and that controlling for wife's education and other relevant covariates does little to diminish the strength of the familiar positive relationship between men's advanced education and the fertility intentions. It is evident that couples in the transitional residential area are more likely to desire more children than those residing in the elite and traditional residential areas. The apparent higher proportion of couples in the transitional residential area that want more children relative to couples in the traditional residential area may be plausibly explained by the likelihood of marital education difference among partners that may affect their discussion on reproductive health issues. It is interesting that the level of agreement on fertility intention is higher among couples living in the traditional areas. For instance, 92·4% of couples in the traditional residential area hold similar fertility intentions (both want more or want no more) while the corresponding percentages of couples in transitional and elite zones who have similar fertility intentions are 87·8% and 75·7% respectively. The

relatively high level of disagreement among couples in elite areas regarding their fertility intention probably reflects the effects of education. The tendency is that when both the husband and the wife are educated they are more likely to engage in open communication and to share and express their reproductive preference.

The study reveals that couples with female partners in traditional religion are more likely to desire to have no more children as compared with their counterparts with a Christian female. On the other hand, the effect of husband's religion on the desire to end childbearing reveals that couples with male partners who are either Muslims or traditional believers are less likely to want no more children. This may be due to conservative norms and values that are more likely to be pronounced among those who are Muslims or adherents of traditional religion relative to Christianity, which promotes egalitarian values and attitudes. Though the effects are in the expected direction, they are not significant. However, the multivariate analysis indicates a complex structural relationship between couples' religious belief and fertility intention.

The results indicate that couples' fertility preference varied according to the type of marriages. For instance, 58% of monogamous couples want more children as compared with 71% in polygynous marriages. The results among couples that are in disagreement suggest an interesting pattern. Among monogamous couples, 8·2% of husbands and 4·6% of wives want more children, while among polygynous couples, 1·6% of husbands and 9·5% wives desire to have additional children. The level of couple disagreement is higher among couples in polygynous marriages. More, importantly, whereas husbands want more children than their wives in monogamous homes, wives in polygynous homes want more children than their husbands. It is interesting to point out that a higher proportion of wives in polygynous unions that want more children may reflect the idea of competition among co-wives to have many children in order to improve their status within the household. It should be emphasized that the data analysed here did not show a significant relation between type of union and couple's fertility preference after controlling for other independent variables.

The findings on media exposure are also noteworthy. It had been anticipated that exposure to radio or television would encourage demographic innovative behaviour such as desire for fewer children, close conjugal relationships and adoption of family planning practices. This finding supports the conventional belief that exposure to media messages, especially family planning, might encourage changes in reproductive health behaviour such as marital interaction on family planning and preference for fewer children.

The result as presented in this paper underlines the importance of providing men with information, education and counselling on the needs to limit their family size. Findings from the study reveal that fertility preference among Yoruba-speaking people remains high. Male fertility is higher than that of their female counterparts. The findings reveal that both husbands and wives desire fairly large families, though husbands tend to want more children than their wives.

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References

Akande, B. (1997) *Some Socio-cultural Factors Influencing Fertility Behaviour: A Case Study of Yoruba Women.* International Population Programme, Cornell University, Ithaca, NY 14853.

Bankole, A. (1995) Desired fertility behavior among the Yoruba of Nigeria: a study of couple preferences and subsequent fertility. *Population Studies* **49**(2), 317–328.

Bankole, A. & Singh, S. (1998) Couples' fertility and contraceptive decision-making in developing countries: hearing the man's voice. *International Family Planning Perspectives* **24**(1), 15–24.

Becker, S. (1996) Couples and reproductive health: a review of couple studies. *Studies in Family Planning* **27**(6), 291–306.

Becker, S. & Robinson, J. C. (1998) Reproductive health care: services oriented to couples *International Journal of Gynecology and Obstetrics* **61**(3), 275–281.

Caldwell, J. C. & Caldwell, P. (1987) The cultural context of high fertility in sub-Saharan Africa. *Population and Development Review* **18**(2), 211–242.

Coombs, L. C. & Chang, M. C. (1981) Do husbands and wives agree? Fertility attitudes and later behaviour. *Population and Environment* **4**, 109–127.

Dodoo, F. N. (1993) A couple analysis of micro-level supply/demand factors in fertility regulation. *Population Research and Policy Review* **12**(2), 93–101.

Entwisle, B., Mason, W. M. & Hermalin, A. I. (1986) The multilevel dependence of contraceptive use on socio-economic development and family planning programme strength. *Demography* **23**(2), 199–216.

Ezeh, A. C. (1993) The influence of spouses over each other's contraceptive attitudes in Ghana. *Studies in Family Planning* **24**(3), 163–174.

Feyisetan, B. J. (2000) Spousal communication and contraceptive use among the Yoruba of Nigeria. *Population Research and Policy Review* **19**(1), 29–45.

Feyisetan, B. J., Oyediran, A. K. & Ishola, G. P. (1998) *Role of Men in Family Planning in Imo State of Nigeria.* Population Research Fund Management Unit, Nigerian Institute of Social and Economic Research.

Gage, A. J. (1995) Women's socio-economic position, contraceptive use and fertility preferences in Togo. *Studies in Family Planning* **26**(5), 264–277.

Koenig, M. A., Simmons, G. B. & Misra, B. D. (1984) Husband and wife inconsistencies in contraceptive responses. *Population Studies* **38**, 281–298.

Marsiglio, W. & Menaghan, E. G. (1987) Couples and the male birth control pill: a future alternative in contraceptive selection. *Journal of Sex Research* **23**(1), 34–49.

Mason, K. O. & Taj, A. M. (1987) Women and men's reproductive goals. *Population and Development Review* **13**(4), 611–638.

Mitra, S. N., Kamal, G. M., Carpenter-Yaman, C. & Harbison, S. (1985) Measuring contraceptive prevalence: responses from husbands and wives in Bangladesh. Paper presented at the *Annual Meeting of the Population Association of America*, Boston, Massachusetts, March 28–30.

Mott, F. L. & Mott, S. H. (1985) Household fertility decisions in West Africa: a comparison of male and female survey results. *Studies in Family Planning* **16**(2), 88–99.

National Population Commission (1991) *Population Census of the Federal Republic of Nigeria: Analytical Report at the National Level.* National Population Commission, Abuja, Nigeria.

Nyblade, L. & Menken, J. (1993). Husband–wife communication: mediating the relationship of polygyny through contraceptive attitudes and use. *Proceedings of the IUSSP General Conference, Montreal, August 1993*. IUSSP, Liege, Vol. 1, pp. 109–120.

Odusola, A. F., Oyediran, A. K., Bogunjoko, J. O. & Adeyemo, J. A. (1998) *Adjustment Policies, Gender Dynamics and Family Size Reduction in Nigeria: A Case of Lagos State.* Report submitted to Population Research Fund, Nigerian Institute of Social and Economic Research, Ibadan.

Oyediran, K. A. & Isiugo-Abanihe, U. C. (2002) Husband–wife communication and couple's fertility desires among the Yoruba of Nigeria. *African Population Studies* **17**(2), 61–80.

Oyediran, K. & Teller, C. (2003) *Linkages Between Participation in Democratic Activities and Reproductive Health Behaviors: A Case Study of Plateau State, Nigeria.* Centre for Development and Population Activities, Washington, DC.

Smith, H. (1989) Integrating theory and research on the institutional determinants of fertility. *Demography* **26**(2), 171–184.

Zulu, E. (1998) *The Role of Men and Women in Decision Making about Reproductive Issues in Malawi.* Working Papers Number 2, African Population Policy Research Centre.