

## Adolescents' Reproductive Motivations and Family Size Preferences in North-Western Nigeria

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**Abstract:** Adolescent marriage and childbearing remain widespread in northern part of Nigeria despite various efforts by governments and non-governmental organizations to discourage the practice. Motivations for adolescent marriage, pregnancy, childbearing and family size remain poorly understood. Hence, this research article investigated adolescent motivations for marriage, pregnancy, childbearing and family size in North-Western Nigeria. A community-based and cross-sectional research design was adopted. Primary data were obtained using quantitative methods. A survey of 1,175 adolescents aged 12-19 years was carried out, using multi-stage sampling techniques involving states, Local Government Areas (LGAs), towns/villages, main streets, houses, households and individuals. Frequency distribution, multiple classification, chi-square, and regression analyses were used for data analysis. The results show that motivations for teenage marriage and childbearing reflect various level of influence, such as parental pressure, and socio-economic status, social norms, as well as individual needs and desires. About 45% of the adolescents desired large family size of six children or more; more male adolescents (48.3%) than female (43.8%) desired large family size. Adolescents' gender, residence, ethnic origin, religion, educational level, knowledge and approval of contraceptive methods were significantly associated with family size preferences ( $p < 0.05$ ). The likelihood of large family size preference is significantly higher among adolescents whose parents had no formal education, married as teenagers, had six children or more, and practiced polygyny. Essentially, social and economic circumstances of adolescents and their parents are crucial motivations for teenage marriage and childbearing, as well as family size preference in North-Western Nigeria.

**Key words:** Childbearing, fertility preferences, marriage, reproduction, sexuality, teenage pregnancy

### INTRODUCTION

Sub-Saharan African countries have the highest levels of adolescent childbearing in the developing world, with rates ranging from 120 to 160 (Singh, 1998; Population Reference Bureau, 2005). Women's marriage and first birth typically occur during the teenage years in most sub-Saharan African societies (LeGrand and Mbacke, 1993; Population Reference Bureau, 2005). The World Population Report on adolescent fertility shows that the number of births to adolescent in this region is projected to increase over the next few decades, exceeding a total of 4.8 million births to girls age 15-19 over the period 1995 to 2020. In part, this increase reflects a growth in the size of the cohort of teens in this region relative to levels in other parts of developing world (McDevitt, 1996). It also reflects the continuation of culture of early marriage and early initiation of sexual activity.

Nigeria has experienced high fertility levels over the last three decades, despite the implementation of the National Policy on Population in 1988 which stipulated

four children per woman, and 18 years as the minimum age at marriage. The proportional contribution of adolescents' fertility (among women age 15-19) to the overall fertility rate among women age 15-49 has been increasing over time. Although there was a 27% decline in the birth rate among women age 15-19 between 1980 and 2003, 46% of women nationally and about 70% of those in some geo-political zones still give birth before their 20<sup>th</sup> birthday (Alan Guttmacher Institute, 2004; NPC and ORC Macro, 2004). The 2003 NDHS report shows that more than 26% of all Nigerian women are married by age 15 and more than 50% by age 18. The 2008 NDHS shows similar pattern of teenage marriage; in particular, 23% of women age 15-19 in Nigeria and 45% in North-Western zone are currently mothers or pregnant (NPC and ICF Macro, 2009)

Women in northern Nigeria continue to follow the traditional pattern of early marriage, with a median age of about 15 years. The prevalence of teenage childbearing in Northern Nigeria is as high as 39% in the North East, 45% in the North West, and 22% in the North Central (NPC and ICF Macro, 2009). A large proportion of births

to young mothers occur within marriage and early marriage further contributes to early childbearing (Barker and Rich, 1992). Teenage pregnancy rate remains high, and five times as high in the Northern Nigeria as in the Southern part of the country. The contribution of adolescents to overall fertility in the North East and North West regions of the country is about three times as high as that of their counterparts in the South East and four times that of those in the South West (NPC, 2002a; NPC and ICF Macro, 2009).

Evidence drawn from the available literature indicates that childbearing among adolescents, whether within marital union or outside it, has far-reaching consequences (NPC, 2004; Zabin and Kiragu, 1998; Cochrane and Farid, 1989; Haaga, 1989; Adetoro and Agah, 1988). Adolescent reproductive behavior has become a social problem in many sub-Saharan African countries because it tends to lead to school dropouts, illegal abortions, child abandonment, increasing number of adolescent prostitutes, early breakages of marriages, and the growing rate of HIV/AIDS particularly among young women (Ajayi *et al.*, 1998). Teenage childbearing truncates the education of the teenage mother, and can lead to reproduction of poverty from one generation to the next (United Nations, 1989; Singh, 1998; Aina and Odebiyi, 1998). Moreover, teenage pregnancy and childbearing is a major health concern because of its association with higher morbidity and mortality for both the mother and child.

Given the high level of involvement of adolescents in marriage and childbearing, and that the contribution of their fertility to the overall fertility rate in Nigeria has been enormous and increasing over the time, we are interested in knowing the factors that determine the supply and demand for children among adolescents. We are also concerned to know what family size adolescents want and why. This is based on the fact that the reproductive behavior and intentions of Nigerian adolescents deserve more attention than they have received previously. Ignoring adolescents in fertility research undermines efforts both to change their attitudes on population matters and to motivate them toward small family norms.

## MATERIALS AND METHODS

The present study was conducted in three states in North-Western Nigeria, namely Kaduna, Kano and Katsina. The data utilized for this research article were collected between August and October, 2008. The Northwestern zone bias of the study derives from the fact that adolescent childbearing is very high in the area. Over 50% of all teenagers in Jigawa, Kaduna, Kano, Katsina, and Zamfara states have begun child bearing. Of particular notes are Katsina, Kano and Kaduna states

where over 70% of teenagers are either pregnant or have babies at age 18 years (NPC, 2002a). Consequently, pregnancy-related conditions are the leading cause of death among women age 15-19 in the zone, with hypertension in pregnancy, obstructed labour and Vesico-Vagina Fistula (VVF) constituting the major health risks for the pregnant teenagers (NPC, 2002b). Thus the choice of the three states was based on the rate of prevalence of teenage pregnancy and childbearing; these states have the highest total percentage of teenagers who have begun child bearing in the North-West zone, more than half of the total projected population of the zone and about sixty percent of the total projected population of teenagers age 12-19 in the zone.

A multi-stage sampling method was used in this research. In each of these states, two urban and two predominantly rural Local Government Areas (LGAs) were selected, one each from North and South of the states using simple random sampling techniques, after all the LGAs in each of the selected states were listed according to their setting (urban or rural) as well as geographical zone (north or south). Thus, six urban towns and six rural villages were selected from the states for detailed study; three were drawn from the southern part and the other three from the northern part of the states. They included the following:

- Kaduna- (i) Giwa, (ii) Kafanchan, (iii) Zango Kataf, and (iv) Zaria City
- Kano- (i) Dala, (ii) Kunchi, (iii) Rimin Gada, and (iv) Tudun Wada
- Katsina- (i) Bindawa, (ii) Daura, (iii) Funtua, and (iv) Matazu

A number of main streets were randomly selected in each town and village, from which houses and households were systematically chosen to make up the sample for a particular area. In each household, one female and/or male adolescent were interviewed. In a household where there were more than one male and one female adolescent, a simple random sampling technique was used to select one male and one female. However, in the case of married or cohabiting adolescents, one male and his female partner were interviewed. In all, 1175 adolescents (606 males and 569 females) were interviewed successfully, using structured questionnaires that elicited information about the respondent's socio-economic background; respondent's parental background; sexual and reproductive status; family size preferences; knowledge of, attitude toward, and practice of contraceptives, as well as reproductive attitudes and motivations.

In the first part of the analysis, simple descriptive data are presented with respect to questions on the motivation for marriage, family relationships, and

decision-making, as well as family size preferences. The responses of males and females are examined to verify the extent to which they support the views discussed in this report. The second part of the analysis utilizes logistic regression model using maximum likelihood estimation to evaluate the influence of family and background variables and socio-economic variables on the ideal and desired family size. Several independent variables are included in the analysis, both for their theoretical relevance and their statistical significance. They include the respondent's gender, geo-political place of birth, religion, ethnic group, marital status, residence, education level, knowledge of contraception, approval of contraception, use of contraception, paternal and maternal education, paternal and maternal ages of first marriage, paternal and maternal number of living children, and paternal type of marital union. The aim of the analysis is to show how the circumstances of family size preferences differ by these variables.

**RESULTS AND DISCUSSION**

**Motivations for teenage marriage, childbearing and family size:** The study examined various motivations associated with teenage marriage, childbearing and family size in North-Western Nigeria. Firstly, the study sought to know the most influential person in the adolescents' reproductive decision making, particularly decision on who and when to marry. Table 1 presents the responses. The data indicate that about four out of ten males and more than half of female adolescents reported that their parents were the most influential person in such decisions; this represents a considerable parental influence in whom and when their children and wards marry. Next to parents are the individuals (48% of males and 38% of females), although the individual rarely makes the final decision in this culture.

Over 31% of all the respondents were ever married at the time of the study. The ever married adolescents were asked to state the motivations for marriage at teenage age. Their responses are presented in Table 2. It is evident from the data that parental/family decision and pressures was the single most popular reason that informed the decision of the respondents to marry at teenage age, and most of such marriages were indeed arranged by parents. Female adolescents were more likely than their male counterparts to be influenced by parental and family pressures to marry at teenage age due to religious injunction, and males are more likely than females to marry as a result of perception that they are of marriage age or to satisfy sexual pleasure within marriage. Equally striking was that more than 10% of females decided to marry at teenage age as a result of lack of means of livelihood. It means that deprivation arising from poverty or low socio-economic background also contributed to

Table 1: Percent distribution of responses to a question regarding who has greatest influence in deciding who and when to marry, by sex of respondents

Responses	Male responses		Female responses	
	%	No.	%	No.
Individual child	47.8	290	37.9	216
Parents	39.6	240	51.1	291
Kinsmen	1.2	7	2.0	11
Priest/ Imam	5.9	36	5.0	28
Other/up to God	4.0	24	2.9	17
No response	1.5	9	1.1	6
Total	100.0	606	100.0	569

early marriage among adolescent girls in northwestern Nigeria.

Analysis of the qualitative data revealed that there are some cultural practices with sexual connotations that young adolescent girls in northern Nigeria are encouraged to become involved in, and in which they are tutored from childhood. For example, the marriage of a girl is entirely the responsibility of her father if she has not attained the age of puberty. The father gives her away to a person of his choice without consulting her or her mother. Among the Hausa, the culture of *kunya*, meaning 'modesty', 'shame' or 'deference', encourages girls to remain shy and submissive. It is the primary virtue to which women should aspire. The Hausa proverb says *Matar na tuba bat a rasa miji* ("A submissive woman won't lack for a husband"), an important concept in a society where virtually the only respectable role open to a woman is that of wife and mother. The virtuous woman is deferential, submissive, and (ideally) she is secluded within the family compound away from the view of other men. The effect on sexuality is that adolescent female marriage is typically arranged; some being forced to marry older men without the option of refusal. This may explain the large proportion of the adolescents in this study who reported parental/family decision, pressures and arrangement as the main reason for their marriage at teenage age.

Furthermore, in the socio-religious setting of northern Nigeria, teenage marriage is encouraged; girls are particularly encouraged to be married and living in their husband's house at the time of the first menses. This partly explains the large proportion of adolescent males and females who reported that they were influenced by religion to marry at teenage age. Parental and family pressures for teenage marriage is also a function of strong adherence to the Islamic injunction which some parents are well disposed to so that the public might not perceive them as deviants.

As a prelude to the question regarding respondents' family size preferences, their idea of what number of children constitutes "large" or "small" family size was sought. Three in four females (74.6%) and almost two in three males (66.1%) were of the opinion that a family size of six children or more was large while those between one and five children were small. Based on the above

Table 2: Percent distribution of responses to a question regarding the motivations for marriage at teenage age by sex of respondents

Responses	Male responses	Female responses
Satisfy religious injunction	12.8	19.4
Parental/family decision, pressures and arrangement	28.5	34.1
Personal decision/wish, have come of age	22.7	11.4
Lack of means of livelihood	1.2	10.6
To satisfy sexual pleasure within marriage, avoid indecency	22.2	10.9
Others	7.4	6.0
No response	5.2	7.6
Total	100.0	100.0

Table 3: Percent distribution of responses to questions regarding the motivations for large family size, by sex of respondents

Responses	Male responses	Female responses
Children are source of wealth creation for parents/community	8.7	6.3
More helping hands and guaranteed support at old age	26.5	36.2
Cultural/religious considerations	31.8	11.6
You can't tell how many of them will die in infancy	5.5	6.1
Many children is source of fulfillment and joy for parents	10.6	19.5
Personal decision/wish	3.2	6.1
Want to have a large family like my parents	4.7	4.3
Others	5.4	7.3
No response	3.6	2.6
Total	100.0	100.0

categorization, about 38% of males and 40% of females said they desired to have a small family size in their life time, while 48.3% of males and 43.8% of females desired large family size. The rest of the respondents were undecided. The respondents who desired large family size were asked to mention some reasons regarding their choice. Table 3 presents the motivations for large family size.

The data indicate that male adolescents mentioned four main motivations for large family size: more helping hands and guaranteed support at old age, religion, source of fulfillment and joy for parents, and source of wealth creation for parents/community. While the four motivations also rank high among female adolescents, discrepancy exists between males and females on what constitutes the most important reason for desiring large family. Male adolescents regard religious considerations as the major motivation whereas their female counterparts see support at old age as the major influence, for desiring large family size. Similarly, the third most important reason among the males and second among the females is that children are a source of fulfillment and joy to parents. There is the tendency for male and female respondents to be influenced by reasons that most serve their interest, for men religion and for women family support. This portrays that family size goals tend to serve the interest of men and women differently. However, the fact that 8.7% of males and 6.3% of females mentioned that many children can help create wealth for parents and community suggest that economic factors may not be a strong motivating factor with respect to family size preferences among adolescents in North-Western Nigeria. The proportion of adolescents (4.7% for males and 4.3% for females) who desired to have a large family size because they want to emulate their parents, indicate that children who grew up in large

families tend to emulate their fathers by having large families themselves.

Similarly, the respondents who desired small family size were equally asked to mention some motivations regarding their choice. The data show that the motivation for small family size is borne mainly by the need to provide effective parental control and discipline for the children, the need for them to have their basic needs adequately provided for in the face of the current economic hardship in the country, and the need to free oneself from problems that come with many children. In addition, and particularly among females, health consideration was a main reason for desiring smaller family size. Most of those who mentioned religion as a factor in their small family size desires stated that it is a sin against God to have many children that one cannot cater for their needs adequately. Clearly, the current economic instability and the concomitant general hardship in the country, as well as the health need of the respondents, account for the most popular reasons why adolescents desire small family size in North-Western Nigeria.

The reported mean number of desired family size and ideal family size according to selected background and socio-economic variables of the respondents are shown in Table 4. It is evident from the table that the ideal family sizes for both male and female adolescents are higher than the number of children desired. However, the figures for females are generally lower than those for males. This has implications for actual fertility since men are more influential in family matters in the culture. As the age increases, the two indicators tend to decrease. Adolescents who were born and brought up in the three northern geo-political zones, namely North West, North East, and North Central tend to have fairly higher family size

Table 4: Desired family size and ideal family size according to selected background variables by sex

Variables	No. of children desired				Ideal no. of children			
	Male	(N)	Female	(N)	Male	(N)	Female	(N)
<b>All respondents</b>	5.6	606	5.4	569	5.7	606	5.5	569
<b>Current age</b>								
≤ 15 years	6.2	67	5.8	61	6.3	71	5.9	57
16-17 years	5.8	231	5.7	188	5.8	233	5.8	186
≥ 18 years	5.3	308	5.1	320	5.4	302	5.2	326
<b>Place of birth</b>								
North Central	5.1	45	5.0	53	5.3	45	5.0	53
North East	5.7	14	5.5	26	5.9	16	5.6	24
North West	5.8	490	5.6	441	5.8	492	5.7	439
South West	4.1	15	4.0	25	4.2	14	4.0	26
South East	4.0	22	4.0	11	4.1	22	4.0	11
South South	4.1	20	4.1	13	4.3	17	4.1	16
<b>Ethnicity</b>								
Hausa/Fulani	6.4	278	6.0	340	6.5	281	6.1	337
Yoruba	4.1	64	4.0	45	4.2	64	4.1	45
Igbo	4.0	31	3.9	13	4.1	31	4.0	13
Northern & Southern Minorities	5.3	233	4.6	171	5.3	230	4.7	174
<b>Religion</b>								
Christianity	4.1	110	4.1	95	4.2	107	4.3	98
Muslim	6.0	465	5.7	454	6.1	469	5.8	450
Pagan/Traditionalist	4.3	31	4.2	20	4.5	30	4.3	21
<b>Education</b>								
No formal schooling	7.9	21	7.1	142	8.1	23	7.2	140
Some primary	7.5	74	6.3	170	7.6	75	5.6	169
Some secondary	6.0	302	5.5	188	6.0	299	4.6	191
Some tertiary	4.1	209	3.9	69	4.2	209	4.0	69
<b>Attitude toward contraception</b>								
Approve	5.8	186	5.6	190	5.8	178	5.7	198
Not approve	6.0	385	5.8	343	6.1	393	5.9	335

preferences than those in the southern geo-political zones. Similarly, adolescents of Yoruba and Igbo ethnic groups seem to have identical family size preferences and ideal family sizes that are fairly lower than those of Hausa/Fulani ethnic group. Also, compared with the northern and southern minorities, adolescents from Hausa/Fulani ethnic group have a fairly higher family size preferences and ideal family sizes.

Adherents to Islamic faith and indigenous religions have higher family size preferences than do Christians, perhaps because the former are more likely to come from polygamous homes. Education has an inverse relationship with fertility preferences. That is, the higher the level of education the fewer the ideal family size and the number of children desired. For instance, adolescents with some tertiary education desire at least one child fewer than those with no formal schooling. Similarly, adolescents with favorable and supportive attitudes toward contraceptives desire fewer children and have lower ideal family size than those with non-supportive attitudes.

Table 5 displays mean desired family size and ideal family size according to selected parental background variables of the respondents. The data indicate that paternal and maternal education plays a crucial role in the adolescents' fertility preferences. For instance, adolescents whose parents have attained tertiary education, desired at least one fewer child, and their ideal

family size was about two fewer children than those whose parents had no formal schooling. This suggests that paternal and maternal education is negatively related to adolescents' fertility preferences. Respondents whose parents first married at teenage age desired more children and their ideal family size was more than those whose parents first married at age 20 and above. However, the influence of paternal age at first marriage on the children's fertility preference is fairly stronger than that of the maternal age at first marriage, suggesting the male dominant influence on the children's reproductive desires and decisions in North-Western Nigeria. Adolescents from monogamous homes desire fewer children and have fewer ideal family sizes than those from polygynous homes, suggesting that children who grew up in large and extended family setting tend to emulate their parents by desiring large families. Over all, the background variables confirm that the social environment in which a child grew up, the differences in socialization and life philosophy acquired at home influence his reproductive behavior.

The socio-economic variables considered in the bivariate analysis were used to re-examine the determinants of family size preferences among adolescents in North-Western Nigeria through the execution of a multivariate analytical technique based on logistic regression, utilizing the maximum-likelihood estimation procedure. The dependent variable is family

Table 5: Desired family size and ideal family size according to selected parental background variables

Respondents parental background	No. of children desired	(N)	Ideal familysize	(N)
<b>All respondents</b>	5.5	1175	5.6	1175
<b>Paternal education</b>				
No formal schooling	7.8	309	7.9	309
Some primary	7.1	126	7.3	126
Some secondary	5.8	187	6.0	187
Some tertiary	3.7	553	3.7	553
<b>Maternal education</b>				
No formal schooling	6.5	543	6.6	543
Some primary	6.1	189	6.3	189
Some secondary	4.8	148	5.0	148
Some tertiary	3.5	295	3.5	295
<b>Paternal age at first marriage</b>				
< 20 years	7.2	181	7.4	181
20-24 years	5.3	361	5.3	361
25-29 years	5.1	310	5.3	310
≥ 30 years	5.1	323	5.1	323
<b>Maternal age at first marriage</b>				
< 20 years	5.7	731	5.8	731
20-24 years	5.2	206	5.3	206
25-29 years	5.1	143	5.1	143
≥ 30 years	5.0	95	5.0	95
<b>Paternal type of union</b>				
Monogamy	5.3	685	5.4	685
Polygyny	5.8	490	5.8	490

size preference among all respondents re-coded as 1 for adolescents who desired large family size and 0 otherwise (that is those who desire small family size). Many background and socio-economic as well as parental variables were considered, and were entered as dummies, as usual, with one category omitted from the model for reference. Table 6 and 7 present the model and summarize the results.

Only five out of the ten variables in Table 7 show some significant relation with family size preferences among adolescents, namely sex of respondent, level of education, ever heard of contraceptives, approval of methods and ever use of contraceptives. Male adolescents have a significantly higher family size preference than female respondents. Females are 36% less likely to desire a large family size than males. This is the expected pattern in a male-dominant society and conforms to the pattern found in many Nigerian studies. Family size preference is immensely related with education; as the level of education increases the likelihood of preferring a high

family size declines. The family size preference for adolescents with no education is three times higher than those of their counterparts with some tertiary education.

Respondents who have not heard about methods of contraception are less likely to prefer higher family size than those who have knowledge of contraceptives. The result is somewhat counter intuitive, but the results for approval and use of methods are in the expected direction. Those who did not approve of contraceptive methods and those who have never used a method are more than three times less likely to prefer higher family size. The above results indicate that improvement in education and

approval and use of contraceptives are important factors which may facilitate family size decline in a high fertility population as North-Western Nigeria. Education engenders attitudinal change and creates a new worldview and opportunities for advancement which may adversely affect family size.

Table 8 shows that while paternal education is somewhat positively related with adolescents' preference for large family size, maternal education is negatively related with family size preferences, confirming the earlier results derive from bivariate analysis. Adolescents whose mothers have some primary education and above desire substantially smaller family size relative to those whose mothers have no formal schooling. Children from polygynous type of marital union are more likely to desire large family size than those in monogamous union. Similarly, children whose fathers have six children or more are nearly two times more likely to desire large family size than those whose fathers have five children or less.

Parental age at first marriage shows negative relationship with family size preference. For instance, adolescents whose fathers married at a more adult age of 20-29 years and 30 years or more are between 11-13% less likely to desire large family as those whose fathers married at age younger than 20 years. In the same vein, adolescents whose mothers married at age between 20 and 29 years are 65%, while those whose mothers married at age 30 years or more are about 5% less likely to desire large family size as those whose mothers married at teenage age.

The findings of this study revealed that desired family size and ideal family size for male adolescents are

Table 6: Logistic regression analysis for family size preferences among adolescents by selected individual variables

Variable/category	Coefficients	Exp(B)
<b>Sex:</b>		
Male	RC	1.000
Female	-1.010	0.364***
<b>Religion:</b>		
Christianity	RC	1.000
Islam	-0.080	0.923
Traditional	0.421	1.523
<b>Ethnic group:</b>		
Hausa/Fulani	RC	1.000
Yoruba	-0.054	0.947
Igbo	1.154	3.171
Northern Minorities	0.498	1.645
Southern Minorities	0.372	1.450
<b>Residence:</b>		
Urban	RC	1.000
Rural	-0.565	0.568
<b>Highest level of school attended:</b>		
No formal education	1.126	3.084*
Some primary	0.843	2.324
Some secondary	0.530	1.698
Some tertiary	RC	1.000
<b>Geo-political zone of birth:</b>		
Northern zone	0.071	1.074
Southern Zone	RC	1.000
<b>Marital status:</b>		
Single/Never Married	RC	1.000
Ever married	0.321	1.379
<b>Ever heard methods of contraception:</b>		
Yes	RC	1.000
No	-3.323	0.036*
<b>Approval of methods of contraception:</b>		
Approve	RC	1.000
Disapprove	1.280	3.596***
<b>Ever used methods of contraception:</b>		
Yes	RC	1.000
No	1.038	2.823**
Constant	0.328	
-2 log likelihood	559.464	
Model chi-square	645.285	
(N)	(1175)	

\*: p<0.05; \*\*: p<0.01; \*\*\*: p<0.001; RC = Reference category

generally higher than those for females. The possible explanations for this finding are that men in all cultures in Nigeria derive more social and economic benefits from large family size than women do, and children generally belong to the man and his kindred rather than to the woman. In fact, as Isiugo-Abanihe (2003) rightly observed, Nigerian men place a high premium on children because of the tangible and emotional benefits derived from them; children bring a high sense of satisfaction or success to a man, even if he is materially poor; they provide help around the home and on the farm, and in the absence of social welfare and security programs, children constitute an important source of parental old-age support, which includes giving their parents a fitting burial. In fact, there is the belief in the study area that a man with a larger family is richer than one with a few. Given the agrarian nature of the Hausa economy, this makes a lot of sense. Children, especially sons, are agents of continuity for the family name, a characteristic that encourages both

Table 7: Logistic regression analysis for family size preference among adolescents by selected parental variables

Variable/category	Coefficients	Exp(B)
<b>Father's level of education:</b>		
No formal schooling	RC	1.000
Some primary	1.057	2.879*
Some secondary	1.239	3.451*
Some tertiary	1.675	5.336*
<b>Mother's level of education:</b>		
No formal schooling	RC	1.000
Some primary	-2.038	0.130***
Some secondary	-3.459	0.031***
Some tertiary	-5.453	0.004***
<b>Father's type of Union:</b>		
Monogamy	RC	1.000
Polygyny	0.163	1.177
<b>Father's number of children:</b>		
5 or less	RC	1.000
6 or more	0.574	1.775
<b>Mother's number of children:</b>		
5 or less	RC	1.000
6 or more -	1.242	0.289*
<b>Father's age at first marriage:</b>		
Less than 20 years	RC	1.000
20-29 years	-2.174	0.114**
30 years or more	-2.067	0.127*
<b>Mother's age at first marriage:</b>		
Less than 20 years	RC	1.000
20-29 years	-0.431	0.650
30 years or more	-3.049	0.047*
Constant	0.328	
-2 log likelihood	559.464	
Model chi-square	645.285	
(N)	(1175)	

\*: p<0.05; \*\*: p<0.01; \*\*\*: p<0.001; RC = Reference category

polygyny and prolific childbearing, to ensure that sons survive to perpetuate the lineage. In spite of his wealth, fame, or accomplishments, a man without a child is, of all men, the most pitied, since the branch of his family tree ends with his death. Thus, females' fertility attitudes are mostly dictated by masculine and patrilineal traditions and men's reproductive motivations to a large extent affect the reproductive behavior of their wives. Given these complex web of pervasive gender-based reproductive traditions, values and attitudes in Nigerian society, adolescents may have been socialized into it from childhood as clearly reflected in their very strong desire and preference for a large family, especially among the males.

Again, preference for large family size of six children or more was generally observed among male and female adolescents, and this was driven by strong psycho-social and economic motivations, particularly to be like their parents who had large families, the feeling that many children is a source of fulfillment and joy for parents, the desire for more helping hands and guaranteed support at old age, and the feeling that children are source of wealth creation for parents/community. On the other hand, motivation to limit family size was largely driven by health consideration and the prevailing adverse economic situation in the country rather than strong negative

disposition toward large family size per se. This raises the possibility that the fertility preference could be reviewed in favor of large families even among those who now appear to have preferred small families, if economic hardships abate, because as Page (1988) argued, crisis-led fertility changes, triggered by frustrated aspiration would not be as "far-reaching as those generated by fundamental socio-economic development."

As noted in the study, motivations for teenage marriage and childbearing as well as large/small family size reflect various level of influence, such as parental pressure, and socio-economic status, social norms, as well as individual needs and desires. Young people in northwestern Nigeria portray themselves to be under social pressures to engage in early marriage and childbearing. They also perceive that many people approve of teenage marriage and non use of contraceptives. Such pressures, favorable attitudes and perceived approval of teenage marriage and non use of contraceptives could constitute profound reproductive motivation among adolescents.

### CONCLUSION

The findings of this study highlighted the immediate need for a concerted effort towards solving the several problems confronting the adolescents in northern Nigeria. At present, Nigerian Population Policy devotes little attention to the specific problems and needs of adolescents especially if they are unmarried. It is also evident that the society has a lot to gain from helping adolescents to make informed and responsible reproductive choices. An important policy and program strategy implicit from the response patterns that emerged in this study is the reduction in male and female adolescents' preference for a large family size and the enhancement of attitudes that discourage teenage marriage and childbearing but encourages family planning. Consequent to the above, there is need for carefully designed programs that involve all elements of society, including community institutions, and that can explicitly question the prevailing reproductive norm in northern Nigeria, raise awareness about their negative consequences, and properly educate young people. The policy and program, whose specific objectives include increasing awareness among young people (particularly males) on the micro and macro advantages of lower fertility, benefits of family planning, and clarifications on misconceptions about specific contraceptive methods, may suffice.

Obviously, if concern is directed at many of the primary sources of sex- and fertility-related risks to adolescents in and out of union, broader areas of interventions must be defined. As Zabin and Kiragu (1998) had observed, many such areas involve not only

adolescents and service providers, but also persons perceived as guardians of the very traditions from which many of the most serious risks to adolescents derive. However, enlisting these people in the process of reproductive change is among the most challenging of tasks in northern Nigerian context because of the difficulty in achieving rational approach to adolescent reproductive behavior. However, though the challenges are many, it is imperative that the issues of teenage marriage and childbearing be challenged head on if the goals of child rights are to be achieved.

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