

ORIGINAL RESEARCH ARTICLE

Girl Child Education: Rising to the Challenge

Grace Nmadu¹, Solomon Avidime², Olugbenga Oguntunde¹, Vehcit Dashe³ Binta Abdulkarim⁴, Mairo Mandara²

¹Department of Community Medicine, Ahmadu Bello University, Zaria; ²Department of Obstetrics and Gynaecology, Ahmadu Bello University Teaching Hospital, Zaria; ³Department of Physical and Health Education, Ahmadu Bello University, Zaria; ⁴Department of Mathematics and Science Education, Ahmadu Bello University, Zaria.

*For Correspondence: Grace Nmadu. E-mail: jumainmadu@yahoo.com.

Abstract

Northern Nigeria's high gender inequity in education places the majority of young girls at a severe disadvantage. This cross-sectional study examined enrolment, dropout, and primary school completion rates in three communities in Kaduna State. Less than half of young people (6 – 25 years) living in northern Nigeria are currently enrolled in school and the majority of students are males (60%). This study's findings indicate there are nearly twice as many boys graduating from primary school as compared to girls, and the dropout rate for boys is close to half (3%) of the dropout rate for girls (5.4%). Sustained inputs are needed to boost female enrolment in junior secondary schools, create girl-friendly school environments, and to better enable communities to understand the value of girls' education (*Afr. J. Reprod. Health* 2010; 14[3]: 107-112).

Résumé

Éducation de la jeune fille : Se monter à la hauteur des circonstances. Le haut niveau de l'injustice fondée sur les sexes au nord du Nigéria dans le domaine de l'éducation défavorise beaucoup les jeunes filles. Cette étude transversale a examiné l'inscription, les taux d'abandon et d'achèvement d'études primaires dans trois communautés dans l'état de Kaduna. Moins d'une moitié de jeunes gens (6-25 ans) qui habitent au nord du Nigéria sont actuellement inscrits à l'école et la majorité des étudiants sont des mâles (60%). Les résultats de cette étude montre qu'il y a à peu près deux fois le nombre de garçons qui obtiennent leurs certificats d'études primaires par rapport aux filles et le taux d'abandon chez les garçons est presque la moitié (3%) du taux d'abandon chez les garçons (5,4%). Pour encourager l'inscription dans les collèges (Junior), pour créer des milieux éducatifs qui sont favorables aux filles et pour mieux permettre aux communautés de comprendre la valeur de l'éducation des filles, il faut avoir des apports durables (*Afr. J. Reprod. Health* 2010; 14[3]: 107-112).

Key words: Girl child education, school enrolment, retention, gender parity, maternal mortality, northern Nigeria.

Introduction

Education is an important foundation to improve the status of women and has also been recognised as a fundamental strategy for development. No sustainable development is possible if women remain uneducated, discriminated against and disenfranchised. Improving and widening access to education, especially basic education, is not only an objective in itself but also accelerates social and economic advancement¹. The evidence is out: nations that invest in girls' education enhance economic productivity and growth. In fact, the World Bank has stated that there is no investment more effective for achieving development goals than educating girls².

The second Millennium Development Goal challenges the international community's commitment to

ensure universal primary school completion and to eliminate gender disparities in primary and secondary education by 2015. This goal is grounded in the recognition that access to basic education is a human right, and a vital part of individuals' capacity to lead lives that they value³. In addition, education is a powerful instrument that enables women to access a variety of opportunities, while rendering them less vulnerable to HIV/AIDS, abuse, and exploitation².

Maternal mortality is one of the strongest predictors of the health of a nation and reflects the disparities between wealthy and poor nations more than any other measure of health⁴. As an indicator of inequality, maternal mortality is considered by many to be a measure of a woman's places in society, representing the accessibility of social sup-

port, economic opportunities, and health care. In addition, the two measures of gender inequality relating to education, (female literacy rate and combined education enrolment ratio) are predictors of maternal mortality⁴.

Improving basic education, especially female education, has a powerful influence on both mortality and fertility. Indeed, the close relationship between education and demographic changes has clearly emerged in a number of recent empirical studies. A wide range of theoretical analyses from different disciplines confirms that education improves health and reduces fertility⁵. For example, women with formal education are much more likely to use reliable family planning methods, delay marriage and childbearing, and have fewer (and healthier) babies than women with no formal education. The effect is particularly pronounced for secondary school. Women with a secondary school education tend to have better knowledge about health care practices, are less likely to become pregnant at a very young age, tend to have fewer, better-spaced pregnancies, and are more likely to seek antenatal care, postnatal care, and skilled attendance at delivery. The effect is profound: for each additional year of schooling provided to young women, fertility declines by 10%. In fact, it has been estimated that one additional year of school for 1,000 women would avert two maternal deaths².

A 2001 study of Nepal and Venezuela shows that a woman with six years of even poor quality schooling can maintain basic literacy skills into adulthood. This exposure to school, paired with basic literacy skills may predict specific aspects of her adult behaviour. Levine et al. argue that she learns an "academic register" which can be considered "the official language of all bureaucracies" including schools. Knowing how to speak this language may lead to greater confidence and increased usage of healthcare services⁶.

Improving the quality and coverage of education, especially for girls, is key to Nigeria's economic development. Since the 1985 Nairobi Declaration and the 1990 World Declaration on Education for all, numerous strategies, policies and programs to improve levels of female education were conceived and implemented by successive governments. Some earnest efforts have been made to improve the efficiency and quality of the educational system, and to increase the relevance of education for Nigerian students¹.

Unfortunately, gender gaps in education still exist. The national literacy rate for females is only 48%, compared to 73% for males, with certain states having even lower rates of female literacy, enrolment, and achievement⁷. Girls' access to basic education, especially in the northern states, has remained low. As few as 20% of women in the north-west and northeast of the country are literate and

have attended school. In the Northern part of the country, the number of children out of school is particularly high and the proportion of girls to boys in school ranges from 1:2 to 1:3⁸.

The purpose of this article is to assess the current status of girl-child education in three communities in the Zazzau Emirate of Kaduna State in northwestern Nigeria and to measure the gender disparities at the primary level in these communities.

Methods

Study Setting

In 2007 and 2008, two cross-sectional, descriptive surveys were carried out in two rural and one peri-urban community near the city of Zaria. Zaria is a large town located in the northern part of Kaduna State in the Guinea Savannah forest belt in Nigeria. It has an estimated population of 546,000 inhabitants, of which more than 50% are Hausa-Fulani. The people of Zaria are predominantly Muslim and they are mostly farmers and traders.

Tsibiri is a small rural village with an estimated population of 1490 inhabitants, essentially a homogenous community of Hausa-Fulani Muslims farmers and traders. Shika Dam is also rural, with an estimated population of 2660 inhabitants. Its people are also primarily Hausa-Fulani Muslims engaged in farming and fishing. Dakace is the only peri-urban community of the three, and it has several industries which attract people of diverse ethnicities and religions which mix with the indigenous Hausa-Fulani community. It has an estimated population of 3471 inhabitants. Each of the three communities had one primary school owned by the local government. Of the three communities, only Dakace has its own secondary school. Therefore, the children in Tsibiri and Shika Dam who attend secondary school have to go to secondary schools in neighbouring communities.

Data collection and instruments

The objective of the 2007 survey was to measure the proportion of school-going children in the study communities and to analyze enrolment and dropout rates, by gender and age. Ethical clearance was obtained from the Ethical and Scientific Committee of Ahmadu Bello University Teaching Hospital and permission was obtained from the local government Educational Board of the three communities. Informed consent was obtained from study participants before carrying out the study.

Questionnaires were administered to both household heads and school administrators. The household head questionnaire was adapted and developed from the Nigerian Demographic and Health Survey (NDHS) 2003⁹. The questionnaires

Table 1. Distribution of study population (6-25 years) in 2007/2008 (n=3847).

Age in years	Male n (%)	Female n (%)
6-11	762 (50.5)	747 (49.5)
12-17	520 (52.1)	478 (47.9)
18-25	546 (40.7)	794 (59.3)
Religion		
Islam	1590 (87.4)	1747 (87)
Christianity	228 (12.5)	259 (12.9)
Ethnicity		
Hausa	1576 (87.7)	1737 (87.2)
Others	221 (12.3)	255 (12.8)

Table 2. Population aged 6-25 years in school and out of school in 2007/2008 by age and sex (n=3847).

Age	In school			Out of school		
	Male n (%)	Female n (%)	Total n (%)	Male n (%)	Female n (%)	Total n (%)
6-11	387 (25.6)	340 (22.5)	727(48.1)	375 (24.9)	407 (26.9)	782 (51.8)
12-17	285 (28.6)	205 (20.5)	490 (49.1)	235 (23.5)	273 (27.4)	508 (50.9)
18-25	189 (14.1)	90 (6.7)	279 (20.8)	357(26.6)	704 (52.5)	1061(79.1)
Total	861 (22.4)	635 (16.5)	1496 (38.9)	967 (25.1)	1384 (36.0)	2351(61.1)

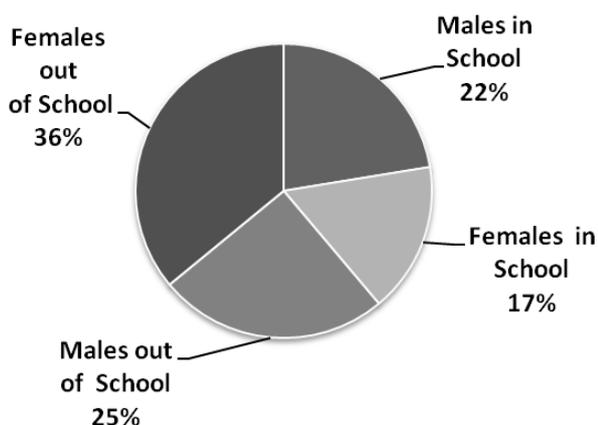


Figure 1. Proportion of population aged 6-25 years in school and out of school (n=3847).

bivariate analysis was done for age and sex. The Gross Enrolment Ratio (GER) was calculated, which is a statistical measure calculated dividing the number of eligible school age children by the number of students who are actually enrolled in school¹⁰. The Gender parity index (GPI) was also calculated. Gender Parity Index is a socio-economic index used to show the relative access to education for males to females¹¹. It is calculated by dividing the gross enrolment ratio for females by the gross enrolment ratio for males. A GPI of 1 signifies parity between male and female children, but if males participate at a higher rate than females, the GPI would drop below 1. The closer the GPI is to 0, the greater the gender disparity is in favour of males¹¹.

Results

The three communities had a population of 3847 between the ages of 6-25 years; of which 47.5% were males and 52.5% females. Muslims and Hausas constituted the majority (87%) of the ethnic groups. Thirty nine percent were in age group 6-11 years, 20% in age group 12-17 years, and 35% in age group 18-25 years. More than half (59%) of the population aged 18-25 years were girls (Table 1).

Only 39% of the population aged 6-25 years were in school, the males made up 22% and females 16% of those in school (Table 2). The majority of the young population were out of school (61%), the males made up 25% and females 36% of those out of school (Figure 1).

were translated into Hausa and pre-tested on a sample of respondents in a neighboring community with similar characteristics as the study communities. It was administered to all household heads in the three communities and contained information on demographic characteristics of school-aged population and their current educational status. The school administrators' questionnaires were administered to the headmasters of each of the communities' primary school, requesting information on enrolment, dropout rates, and completion of primary schooling.

The data collected was processed using SPSS Version 17. Statistical measures such as frequencies and percentages were used in the analysis and

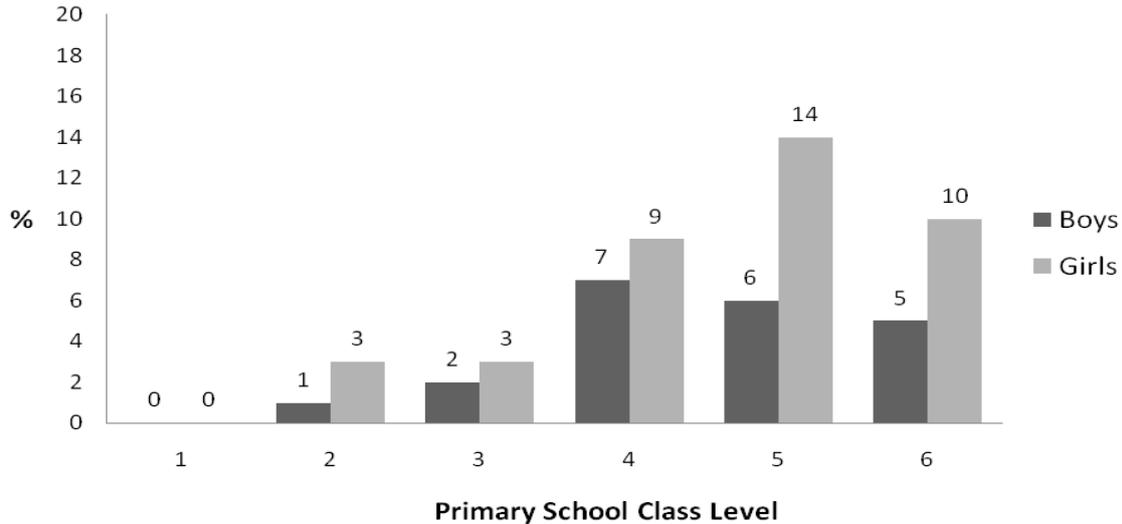


Figure 2. Primary school dropout rates, by gender (n=62).

Table 3. Children enrolled in primary school by class and sex, 2008 (N=1543).

Class level	Male n (%)	Female n (%)
1	197 (60)	134 (40)
2	171 (56)	136 (44)
3	148 (53)	131 (47)
4	155 (60)	103 (40)
5	109 (61)	71 (39)
6	112 (60)	76 (40)
Total	892(58)	651(42)

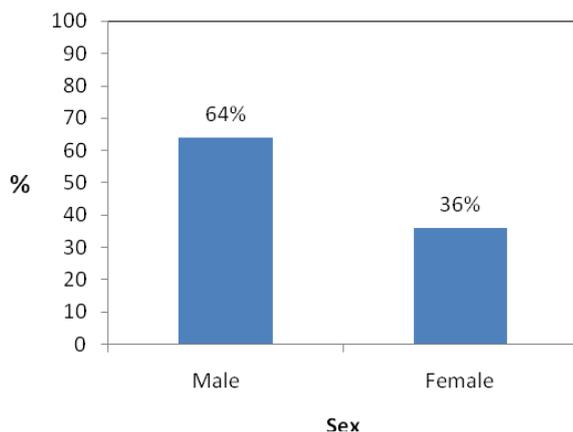


Figure 3. Primary school completion rate by sex in three communities (2008) (n=168).

Even though half of the population of 6-11 year olds were females, primary school records reveal that nearly 60% of the children enrolled in primary schools were males. In each class level the percentage of males enrolled exceeded that of females,

but the disparities were the most extreme as the age of marriage approached for girls, with a ratio of approximately 60% boys to 40% girls in Classes 4, 5 and 6 (Table 3). Interestingly, there was also a 60-40 ratio favouring boys in Class 1, but the gap decreased in Class 2 and Class 3.

The primary school Gross Enrolment Ratio (GER) was 117% for males and 87% for females, with a Gender Parity index of 0.74. The general dropout rate was 4%, with a female dropout rate of 5% compared to a male dropout rate of 3%. The highest dropout rates (14%) were for girls who were enrolled in Class 5 at the beginning of the year (Figure 2).

Impacted by high dropout rates among girls, primary school completion rates showed an even greater inequity. Figure 3 shows that the number of boys who graduated from primary schools in the three villages (64%) were almost twice as many as the number of girls who graduated in the year 2008 (36%).

Discussion

The global estimate of 'out of school' children has been estimated to be 115 million. Over 53% of these children are girls and over 80% of these girls live in sub-Saharan Africa¹². In the western and central African region, nearly half of children are out of school¹³. The percentage of out of school children found in this study was even higher than regional estimates, with 60% out of school. Out of school females far exceeded out of school males, mainly due to girls dropping out between Class 4 and Class 6 of primary school.

Household survey data for 80 countries indicated that for every 100 boys of primary school age

who are not in school, there are 117 girls who are out of school. The exclusion of primary school aged girls has been found to be particularly marked in three regions: the Middle East & North Africa (134 girls to 100 boys), South Asia (129:100), and West and Central Africa (118:100). In contrast, Latin America and the Caribbean have even more boys out of school than girls. However, even for regions with greater gender parity, girls in specific countries within those regions may suffer exclusion. For example, there are 120 boys enrolled for every 100 girls in Peru, Bolivia and Guatemala. Other countries exhibit even greater disparities, such as Yemen (184:100), Iraq (176:100), India and Benin (136:100), Nepal (135:100), Egypt (131:100), Pakistan (129:100), and Togo (126:100)¹².

In addition to the gender gap, Nigeria's educational system experiences a number of other problems such as teacher shortages and economic and health barriers that contribute to under-enrolment and low quality of education¹⁴. Place of residence (urban or rural) also influences educational participation. The NDHS also reported that 68% of primary age school children live in rural areas, and rural children account for 80% of those who are out of school⁹. The marginalization of rural children extends far beyond Nigeria: a household survey conducted in 80 countries also reported that rural children account for 82% of the world's school-aged children who are not enrolled. In the Nigerian sample, this study also revealed that almost one in three children lived in Hausa households and more than one-half of Hausa children (54%) were out of school. The regression analysis found out that children from Hausa households were 9.8% points less likely to attend school than children living in households in which other languages predominate¹³.

The present study has revealed that school enrolment in the three study communities is poor for both boys and girls. It has also shown that there is significant gender disparity in school enrolment, school drop-outs, and school completion is in favour of males. The picture is indeed dreary because it is much worse than the picture at the national level.

The majority of our study population were Hausa Muslim children (87%). Two of the three villages were rural, and the third was considered peri-urban, representing a mix of farming and other occupations. Sixty-one percent of the 6-25 year olds in the three communities were out of school. Primary school records were comparable with responses from household heads, with a higher percentage of males (58%) enrolled in primary school compared to females (42%). The gap in enrolment was highest in the fifth and sixth classes of primary school. This difference could be explained by the fact that girls are approaching the age of marriage.

Primary school dropout rates showed a similar trend: they were markedly higher in girls during the

fifth (14%) and sixth (10%) year of primary school compared to dropout rates of boys in the fifth (6%) and in the sixth (5%) years. These findings are similar to the NDHS data which showed the highest drop-out rates were among girls in the sixth class⁹. The most likely explanation for the high dropout rate among girls in the fifth and sixth class levels is that their parents were pulling them out of school in order to get them married at this time. The lack of secondary schools within many rural communities may also be a deterrent for parents to allowing their daughters to continue studying in secondary school.

Rates of primary school completion showed dramatic differences between boys and girls with 64% completing primary school in 2008 compared to 36% of girls (36%). These values were much lower than the national primary completion rate for males (83%) and females (67%), but not much different from previous findings reported for Northern Nigeria (2004)⁷.

The primary school GER was lower for girls in the three communities (87%) as compared to the boys (117%), with a wide gender gap of 30%. The primary school GER for boys was over 100% due to the inclusion of over-aged and under-aged male students. The primary GER for girls (87%) was not much different from the national figure of 89%, but the gender gap was almost double the national figure of 16%. This implies that large proportions of girls are being excluded from opportunities provided to boys. This wide gap was further reflected in the GPI of 0.74 found in the study area, even lower than the GPI for Nigeria of 0.85. Gender parity is signalled by a GPI of 1.00, so these figures indicate that Nigeria, and particularly northern Nigeria, have far to go to achieve gender parity. It is not surprising that Nigeria is currently among the 28 countries at risk for not achieving gender parity in primary education before the year 2015, or even 2025¹³.

This research has helped inform a long-term investment in girls' education in the Zaria area. The PRHP girl child education program is being carried out in 9 villages in Kaduna State, aiming to generate community support for girl-child education, to encourage girls to complete secondary school education and improve the health of women and children over the longer term.

Conclusion

Girl child education is a priority because of its tremendous impact on all aspects of human development. Improved coordination between the Ministry of Education, the Ministry of Women's Affairs and the Ministry of Health can reverse the current trend of substandard education and poor health outcomes for girls and women. In order to provide high quality education to Nigerian children, families must be

encouraged to send their children to school and teachers must be trained and supported to provide better quality education, especially in the rural North.

The high level of out of school girls seen in this study has grave implications that are detrimental to the society as a whole and which can affect girls' lives negatively in all ramifications. Uneducated girls easily slip into the margins of societies; ending up less healthy, less skilled, with fewer choices, and remain ill-prepared to participate in the political, social and economic development of their communities. As undereducated women, they will remain at higher risk of poverty, maternal mortality, child mortality, HIV/ AIDS, sexual exploitation, and other forms of violence.

Poor families tend invest their limited resources into things that they feel are useful to their family's economic well-being. With the current state of affairs, it is no wonder that many do not see the point of sending their sons or daughters into the system. This study concludes with a call to action – for national leaders, local government bodies, religious leaders and all concerned citizens – to mobilize our existing resources to provide Nigerian children with the education that they deserve and the education that the country needs them to have.

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References

1. Dauda RO. Female Education and Nigeria's Development Strategies: Lots of Talk, Little Action? *Ind Journal of Gender Studies* 2007;14(3) 461-479
2. Girls' Education. Available at www.worldbank.org/education/girls.
3. Lloyd CB and Hewet PC. Educational Inequalities in the Mist of Persistent Poverty: Diversity across Africa in Educational Outcomes. Available at www.popcouncil.org/pdfs/wp/pgy/014.pdf
4. McAlister C. and Baskett T.F Female Education and Maternal Mortality: A Worldwide Survey. *J. Obstet. Gynaecol. Can.* 2006;28(11):983–990
5. Mortality, Fertility and Gender Bias in India: A District level analysis. Available at <http://www.histecon.kings.cam.ac.uk/docs/mortal.PDF>.
6. LeVine, Robert A., Sarah E. LeVine, and Beatrice Schnell. 2001. "Improve the Women: Mass Schooling, Female Literacy, and Worldwide Social Change." *Harvard Educ. Rev.* 71(1): 1–50.
7. National Population Commission Nigeria. Nigeria DHS EdData Survey 2004: Education Data for Decision-Making
8. Nigeria UNICEF Country Office 2007. Girls Education. Available at www.unicef.org/.../WCARO-Nigeria-Factsheets-Girls Education.pdf
9. Nigeria Demographic and Health Survey 2003
10. Gross Enrolment Ratios Available at http://www.uis.unesco.org/i_pages/indspec/tecspe_g er.htm
11. Subrahmanian R. Gender equality in education: Definitions and Measurements. Background paper for UNESCO GMR 2003-043. Available at <http://portal.unesco.org/.../daa3a7d75587a9ae6c90e68d961a5229Gender+equity+in+Education.doc>
12. United Nations Educational, Scientific and Cultural Organisation (UNESCO) Institute for statistics. 2010 Education for All Global Monitoring Report.
13. United Nations Educational, Scientific and Cultural Organisation (UNESCO) Institute for statistics Montreal. Children Out of School: Measuring Exclusion from Primary Education 2005. Available at <http://www.uis.unesco.org>
14. United Nations Children's Fund (UNICEF) Nigeria Country Office. Information sheet. Girls' Education 2007.