

Socio-Demographic and Some Anamnestic Characteristics of Antenatal Patients in Nigeria and Germany

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Abstract

Objective: To examine the socio-demographic characteristics of the two populations, with a view to identifying areas where intervention could lead to better reproductive performance.

Study Design: Prospective study of consecutive deliveries .

Setting: A university teaching hospital in Nigeria and the perinatal data pool of the state of Hesse, Germany.

Results: There were more teenage mothers in Nigeria(2.7%) than in Germany(0.6%). Reproduction starts earlier in Nigeria (22.2, SD 3.9 years) than in Germany (26.7, SD 4.5 years). There is a remarkable decrease in the number of pregnant women as parity increases in the two populations. Germans are generally taller than the Nigerians, 3.1% of Nigerians and 0.4% of Germans being below the critical obstetric height. In Nigeria, 60.2% of women continued wage-earning jobs during pregnancy compared to 43.3% in Germany. In Nigeria, 0.4% of the women are single mothers compared to 6.9% in Germany. Only 0.1% of Nigerian pregnant women smoke during pregnancy compared to 15% of the Germans. Drug abuse is not reported among Nigerian pregnant women compared to the 5.8% prevalence in German women. First induced abortion is more common in Germans than in Nigerians but the Nigerian is more likely to have had multiple induced abortions.

Conclusion: The Germans appear to have a clear socio-biological advantage over the Nigerians with regard to reproduction.

Key Words: Antenatal, Socio-Demographic, Anamnestic, Outcome. [Trop J Obstet Gynaecol, 2002, 19: 93-96]

Introduction

Reproductive performance has been shown to be better in the developed countries of the world than in the developing ones ^{1,2}. This may not be due to the technological advantages enjoyed by the developed world alone, but may also be a reflection of the better socio-biological endowment of their women at the initiation of reproduction.

The purpose of this study was to describe the obstetric populations in the two countries (Nigeria and Germany) with regard to some socio-demographic and anamnestic factors that are often associated with either poor or good reproductive performance. This is with a view to seeing where intervention could be made for better reproductive outcome in both countries.

Subjects and Methods

This study was based on data collected using the questionnaire of the Hesse Perinatal Study Group. The period of study was from January 1st, 1990 to August 31st, 1990 for Nigeria (Ahmadu Bello University Teaching Hospital, Kaduna) and January 1st, 1990 to December 31st, 1990 for Germany (the State of Hesse).

During the periods of the study, there were 1055 and 56690 deliveries in Nigeria and Germany respectively. Information collected on each patient

included age, parity, height, employment status during pregnancy, marital status, social class, evidence of cigarette smoking and drug abuse, and past histories of stillbirths and abortions. Data analysis was performed at the Justus-Liebig University Department of Obstetrics & Gynecology, Giessen, Germany.

Results

The age group 18-34years form the bulk of the patients in both countries, 86.9% of them in Nigeria and 89.4% in Germany. Patients below 18 years of age make up 2.7% of the Nigerian patients as against the 0.6% of the German patients. The mean age of mothers giving birth to their first child in Nigeria was 22.2 (SD 3.9) years and in Germany 26.7 (SD 4.5) years, a significant difference ($p < 0.01$).

The incidence of nulliparity among antenatal patients in Nigeria was 18.5% compared to 41.1% in Germany. The incidence of grandmultiparity in Nigerian antenatal patients was 28.2%, compared to 2% in Germans. There is a remarkable decrease in the number of pregnant women as parity increases in the German population as seen in Table 1.

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Table 1
Patients' Parity

Parity	Nigerians N (%)	Germans N (%)
0	195 (18.5)	23315 (41.1)
1	174 (16.5)	18903 (33.3)
2	162 (15.4)	8504 (15.0)
3	120 (11.4)	3447 (6.1)
4	107 (10.1)	1380 (2.4)
≥ 5	297 (28.2)	1122 (2.0)
Total	1055 (100.0)	56690 (100.0)

The German population is generally taller than their Nigerian counterparts, with 98.1% of Germans being above the critical obstetric height of 150cm, as against 88.3% of the Nigerians. The height distribution of the two groups is shown in Table 2. There was a statistically significant difference in the two distributions ($p < 0.05$; *chi square test for trend*)

Table 2
Patients' Height

Height (cm)	Nigerians N (%)	Germans N (%)
< 150	32 (3.1)	250 (0.4)
150-159	426 (40.4)	7812 (13.8)
160-169	413 (39.1)	32038 (56.5)
≥ 170	51 (4.8)	15596 (27.5)
Not Known	133 (12.6)	-----
Total	1055	56690

More Nigerian women (60.2%) were employed at wage-paying jobs during pregnancy than Germans (43.3%), a statistically significant difference ($p < 0.001$; *chi square test*). There were 402 unemployed Nigerians (38.1%) compared to 29564 Germans (52.2%). Employment status was not indicated for 18 Nigerians and 2564 Germans.

There were more single mothers in Germany (6.9%) than in Nigeria (0.4%) [$p < 0.001$]. More than 99% of the Nigerian women were married compared to 92.2% of the Germans. Only 0.1% of Nigerian women smoke during pregnancy, compared to 15% of Germans. The only Nigerian that smoked, consumed more than ten cigarettes per day. Among the Germans that smoked, 5.1% consumed less than 5 sticks daily, another 5.2% smoked 6-10 sticks while 4.7% consumed more than ten cigarettes per day. Drug abuse (including alcohol) was not reported by any of the Nigerians, compared to 5.8% of the German women. In 0.9% of Germans, there

was a positive history of stillbirths, while this was found in 5.7% of Nigerians.

Nigerians are more likely to have had two or more stillbirths as shown in Table 3. About 26% of Nigerians had suffered one or more spontaneous abortions before the current pregnancy compared to about 15% in Germans. Among the Nigerian women, 73.4% had never suffered a spontaneous abortion compared to 84.7% of the German women. There is a sharper fall in the proportion of Germans compared to Nigerians as the number of previous spontaneous abortions rises. Single-episode induced abortions are also more common in Germans than in Nigerians, but the Nigerian is more likely to have had multiple induced abortions. Nearly 2% of the Nigerian women had terminated 2 or more pregnancies compared to 0.9% of the Germans ($p < 0.01$).

Table 3
History of Stillbirths

Number of Previous Stillbirths	Nigerians N (%)	Germans N (%)
0	986 (93.5)	56195 (99.1)
1	60 (5.7)	452 (0.8)
2	6 (0.6)	18 (0.03)
3	2 (0.2)	3 (0.005)
4	1 (0.1)	0 (0.0)
≥ 5	0 (0.0)	1 (0.002)
Total	1055	56690

Discussion

This study shows that the Germans have a significant overall socio-biological advantage over the Nigerians with regards to reproductive efficiency. The age group 18-34 years form the bulk of the antenatal patients in the two countries. This is not hard to understand because that is the period of high reproductive activity in man. However, a significantly higher number of women below 18 years of age is observed in Nigeria. The reason for this may be because of early marriages and pregnancy within a few months of marriage as demanded by the tradition and custom of the people of Northern Nigeria and Muslims in other parts of the world. This is corroborated by reports from Zaria, Nigeria and from Saudi Arabia^{3,4}. Madauci *et al*⁵ in their study in Northern Nigeria went further to state that, it is not uncommon among the uneducated to marry before they attain menarche. In Germany however, it is likely that the few teenagers seen in the study, may not have been married as was

the observation in Britain ⁶ or if they were, they were likely to have come from the poor socio-economic strata of the population with poor access to contraceptive services, similar to the report from the Alan Guttmacher Institute in New York ⁷.

Generally, the Germans start reproducing later in life than the Nigerian, not only because of later marriage but also, the protection offered them by the years of schooling and professional training they are required to enrol in. In Nigeria however, many of these teenagers come from the deprived segments of the community, where formal education is either not within reach because of poverty and ignorance, or where it is frowned at by the parents.

It is also not surprising to find that there are more nulliparous women in Germany than in Nigeria. This may be a sum up effect of late marriages due to schooling and, perhaps, societal expectations. However, there are more grandmultiparous women among the Nigerians than in Germany. This may be the product of the high illiteracy rate among the women population, especially, and the traditional desire for large families even among the educated ones. Another important factor with regard to grandmultiparity in Nigeria and in many African countries is the culturally accepted and religiously endorsed consecutive polygamy practised in the society, as against the successive polygamy of the Europeans. In this context, the many wives try to outdo one another in baby-making because in the event of the death of the man, his wealth will be shared among the children; so, the more children the woman has, the more the portion she is likely to get.

In Germany however, small family size is the norm and only a minority few will embark on having more than three children. This is also within the background that in Germany, the more the children you have, the better social benefits are available to you. The difference then between Nigerian women and German women is that the German already has a good income and can be independent of the man while the opposite is the case in Nigeria because even those that work cannot solve their daily problems with their meagre wages.

Height is assumed to be an index of general health and nutrition of an individual. It is evident from this study that the Germans are taller than the Nigerians. Various groups of workers ^{8,9} have explored the effects of height on reproductive performance. The height of the individual is significantly determined by his or her genetic endowment but in Nigeria another determinant factor is early marriage, even before menarche. The child-mothers are yet to achieve their full growth potential before embarking

on the voyage to motherhood. Harrison's Zaria biometry study of these child-mothers³ was very revealing.

More Nigerians continued in their wage-earning jobs during pregnancy than Germans. This is in addition to the work the women do at home where they nearly always shoulder the domestic workload alone, as predetermined by culture and tradition. This indeed is a significant burden for the Nigerian pregnant woman and puts her at a disadvantage. In Germany, women have a flexible work schedule, hence it is not uncommon for women to stay out of work for up to one year in order to deliver and look after their babies. The social security system in Germany provides enough for meaningful existence, even for those who, out of simple social deviation, refuse to do any work.

With regards to marital status and pregnancy, it is taboo in most African traditions to bear children out of wedlock, perhaps that is one of the factors that contribute to the high incidence of induced abortions in the Nigerian group ^{10,11,12}. Single motherhood is tolerated in Germany, because the marriage institution appears to be crumbling. It is now fashionable to live as partners and not as husband and wife in many European countries. The high rate of divorce may be another contributing factor to the increased number of single mothers in Germany. The old Christian grip on the people, appears to have finally snapped in most of Europe.

It is pitiable that many German women still smoke cigarettes and use recreational drugs during pregnancy despite their known deleterious effects on pregnancy and the general health of the individual ^{13,14,15}. That apparently few Nigerians are involved in cigarette smoking and drugs is not a reason for complacency on the part of Nigerian Obstetricians. It is true that the drug epidemic is catching on in Nigeria and Obstetricians have to anticipate the future and train towards the effective management of pregnant drug abusers.

Stillbirths do not appear to be common in the obstetric history of the two populations. Nevertheless, it is noteworthy that more Nigerians have had stillbirths than Germans. This is not unexpected because of the poor infrastructure of health care delivery in Nigeria when compared to Germany. Many workers have uniformly reported high perinatal mortality rates in Nigeria ^{16,17,18}. A history of second stillbirths is virtually unknown in Germany, probably because of the intensive care offered patients with a history of a stillbirth.

In the case of abortions, two pictures are demonstrable from this study. Firstly, the incidence

of spontaneous abortions is higher in Nigerian than in Germany. On the other hand, induced abortions present a different picture in the two countries. The incidence is low and almost similar in both countries; however, it is observed that more Germans seek first terminations of pregnancy than Nigerians. Generally the first induced abortion, is usually followed by adequate contraception in Germany, but it takes the Nigerian a longer time to

accept contraception, if at all. Hence the repeated abortions reported by the patients.

These data will hopefully be useful in planning maternity services in the two countries in the future and also act as a stimulus for further studies on the factors militating against efficient reproduction in the two societies.

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