

Patterns of reproduction among the Fang of Nsork (Equatorial Guinea): pregnancies, abortions and child spacing

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(Rec. 3-VI-1993. Acep. 1-X-1993)

Abstract: Fang women are known to practice virtually no contraception but for them induced abortion is not an acceptable option. Their reproductive behaviour consequently is governed by the ability to conceive, spontaneous intrauterine mortality and child spacing (due to prolonged breast-feeding and sexual abstinence). In a sample of 587 women from one hospital and one clinic in Nsork, there was a positive correlation between maternal age and the number of pregnancies, resulting in a mean of 5.52 pregnancies per female and one child born every 2.5 years. The reported spontaneous abortion rate was 28.6%.

Key words: Fang population, pregnancies, abortions, child spacing, Equatorial Guinea.

The traditional culture of the Republic of Equatorial Guinea (West Africa) does not allow the practice of birth control or induced abortion, but child spacing behaviour is widely and efficiently used. This behaviour, in a society where women have continuous exposure to the risk of conception between menarche to menopause, allows the new-born to attain the age of weaning with greatest chance of survival (Sainz de la Maza & Gonzalez-Kirchner 1991, 1992). The protective effect of breast-feeding is an important determinant of child development, and the early consumption of any form of nutrient other than mother's milk results in an increased risk of death (Holland 1987, Zacharias 1987). Among the Fang, there is strong belief that a birth which takes place before breast-feeding of the previous infant has been completed would be at especial risk.

In this study three variables were analysed to characterize the reproductive strategy of the

Fang population: the ability to conceive, spontaneous intrauterine mortality and child spacing.

MATERIAL AND METHODS

The Republic of Equatorial Guinea, the only former Spanish colony in equatorial Africa, is located on the Western sea-board of the continent straddling the Equator. The country is small, with a total population of only 360 000 divided between the mainland and five dispersed islands. Population density is 10.7%, and the average GNP is \$180 per year (UNICEF 1989). The studied region (Nsork district), in the SE of the country, is very isolated and distant from the principal mainland settlement, Bata. Nsork district, with an area of 1 800 Km², has a total population of 5 467 grouped in 28 villages and one town,

Nsork. Western influence on lifestyle has been low. The studied women belong to the Fang group of tribes. The Fang are polygynous and a large family size is strongly favoured. Although the women in the sample spoke Spanish in addition to Fang, female literacy was low (37%), (Dirección General de Estadística 1990).

Data were collated in the only hospital built at Nsork, and were of two categories:

Group A: Data from deliveries at Nsork Hospital, from March 1988 to July 1990, (29 months). We recorded maternal age, number of previous pregnancies, number of fetal losses from the fourth month of pregnancy, and clinical details, such as malarial episodes. The total sample comprised 157 women between 15 and 40 years old, who had a total of 555 pregnancies.

Group B: Data from the antenatal clinic at a primary health post, staffed by local personnel, which was collected from May 1987 to December 1988 (20 months). Only age and month of pregnancy were recorded to assess the total number of pregnant women in the district (430 women aged 14 - 45 years).

Group A women represented 15.6% of all women in the district between 15 and 39 years of age; Group B, 36.5% aged 15 - 44 (Dirección General de Estadística 1990).

RESULTS AND DISCUSSION

Pregnancies: Given the high relative level of antenatal attendances in Group B, these women would be expected to give birth in the hospital at Nsork. However, only 20.2% of antenatal clinic visitors gave birth at the hospital; therefore most delivered at home with increased health risks to themselves and their progeny.

In societies where reproduction is to some extent controlled, a progressive increase is observed in the number of pregnancies from the age at which women normally marry until the desired number of offspring are born. At this time fecundity becomes nil, irrespective of maternal age. But in Group A, the number of reported pregnancies continued to rise in direct relation to the woman's age (correlation coefficient $r=0.91$). The reproductive span of the population was 15 to 40 years of age, with a

mean of 5.52 pregnancies. The reproductive span begins with the menarche, continues to menopause, and is greatly independent of marital status.

Fetal loss: The average number of reported abortions per female was 0.48 for each maternal age group; it is not significantly correlated with the age of the woman ($r=0.40$, $p>0.05$). The total incidence of fetal loss in the sample was 28.3%, 23.9% of which were reported by women with one abortion, and 4.4% by women with at least two abortions.

The lack of the correlation between number of abortions and maternal age raises the possibility of other causative factors. The sample were women who give birth at the hospital, who may represent a high risk group. At least a proportion of cases, malaria may have influenced antenatal losses (Cavalli-Sforza & Bodmer 1984; Bruce-Chawat 1985). However, it should be noted that every woman who is under antenatal and pregnancy care in the primary health posts and in the hospital of Nsork, must take malaria prophylactic treatment throughout pregnancy.

Child spacing: Group A shows an effective child spacing, achieved by a combination of sexual abstinence and prolonged breast-feeding. Sexual abstinence is practised after the seventh month of pregnancy until breast-feeding ceases, and breast-feeding is continued until the new-born is aged 16 to 21 months. The pattern of child spacing calculated from the regression between mean number of conceptions per woman and maternal age ($r=0.91$, $p<0.05$) is near one pregnancy every 30 months. A much higher birth rate has been reported in other natural-fertility populations, for example the Hutterites (Eaton & Mayer 1953; Lang & Gohlen 1985). For the Fang there are particular economic, social and health constraints. Their birth spacing may represent the minimum time needed to ensure survival of the offspring.

The observed pattern of reproduction provides a longer period of lactation than more closely spaced pregnancies would permit, thus increasing chances of infant survival (WHO 1983), which may be the origin of a traditional spacing method practised by everyone in the sample. Intercourse may take place at any time after lactation has been completed. Much research shows that breast-feeding suppresses

ovarian activity and menses (Jones 1988; Lunn et al 1984), showing a positive correlation between both variables (Rosetta 1989). Nevertheless, in the latest stage of lactation when suckling becomes less frequent and hard, there is new ovulation (Milligan, per. com., Zacharias 1987) allowing pregnancy.

The data here analysed can be considered as representing a population with fertility close to natural, since their reproduction is not subject to deliberate control (Henry 1961) and there is no suggestion of any attempted cessation of reproduction once the desired family size has been attained (Knoddel 1983). In this population the desired family size is basically the maximum possible (Sainz de la Maza & Gonzalez-Kirchner 1992). The birth spacing behaviour is not aimed at restricting family size (Wood 1989), but rather is a strategy to optimize the health and hence the survival prospects of the new-born.

ACKNOWLEDGEMENTS

We thank the Spanish Cooperation Institute for the Development (Agencia Española de Cooperación Internacional -Instituto de Cooperación para el Desarrollo) for financial assistance and the Ministry of Culture of Equatorial Guinea for the facilities given in the field work. Arturo Valls contributed much appreciated constructive criticism of earlier drafts. We are very grateful to Allan Bittles, Stuart Milligan, Ramiro Barrantes and Maria Saldivar for their help and suggestions and to the Erasmus Programme of the EEC for supporting us during the preparation of this paper.

RESUMEN

La mujer Fang (República de Guinea Ecuatorial, Africa) no utiliza métodos anticonceptivos ni tampoco practica el aborto, por lo que su patrón reproductor es el resultado de su capacidad para concebir, en combinación con las pérdidas fetales y la separación entre nacimientos (debida a la lactancia prolongada y la abstinencia sexual). En una muestra de 587 mujeres que visitaron un centro de salud y un hospital en Nsork se observa una correlación

positiva entre la edad de la madre y el número de hijos, con una media de 5.52 hijos por mujer y una media de un nacimiento cada 2.5 años. El porcentaje de abortos espontáneos fue de 28.6%.

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