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A Study on Some Demographic Factors Associated with Twin Births Among the Khasi of Shillong (Meghalaya)

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INTRODUCTION

The WHO (1966) have listed many topics on twins, which ranges from alcoholism to rheumatic diseases. Much research is now devoted to refining measures of zygocity determination and the variations in twinning rates in different parts of the world. Imaizumi (1982) found that the mean sex ratio of twin births in Japan during 1960 to 1967 and 1974 was 0.4995. The sex ratio of Japanese twin births is not so high compared with those of Europe and the USA in recent years. James (1985) presented a short report on the sex ratio of Oriental births. In general, and in conformity with the hypothesis Oriental births seems to have higher sex ratios than white births.

In India, most of the studies on multiple births are based on information collected from birth records of various hispitals. Guha (1982) made a study on twinning in two hospitals of Calcutta for the period of 1965 to 1977. Both dizygotic and monozygotic twinning is found to be more in comparatively higher socio-economic strata. Twinnning rate is highest among the Muslims. The rate is highest in autumn and lowest in summer. Dizygotic twinning rate increases with maternal age and birth order, whereas their effects are less clear in monozygotic twinning. Sengupta and Boruah's (1996) findings also corresponds with that of Guha (1982) while reporting on neonatal twinning in a hospital of Dibrugarh, Assam.

With regards to tribal populations of our country, one does not come across studies analysing twin data especially in the north eastern region. The study of Sarkar (1958) which reported rates of twinning in Meghalaya state is based on data obtained from one of the hospitals of Shillong town without considering the ethnic background of the multiple births. Barua's study (1983) reports twinning rate among the Hajong of West Garo Hills of Meghalaya. Thus, the present study attempts to deal with some demographic factors associated with twin births among the Khasi of Shillong.

MATERIAL AND METHODS

The present study is based on 14 twin pairs belonging to the Khasi community in the age group of 5 to 23 years from Mawlai area of Shillong town. The work was carried out in the months of January and February, 1996. Among the 14 twin pairs, 4 pairs are of boys, 6 pairs are of girls and 4 pairs are mixed i.e. one boy and one girl.

Ethnically, the Khasi belong to the Mongoloid race like most of the tribes of North-East India. They speak a dialect of the Monkhmer linguistic group which forms a part of the Austro-Asiatic language family. The Khasi have the matrilineal family structure.

RESULTS AND DISCUSSION

Altogether data on 14 twin pairs have been collected through extensive pedigrees. While collecting data, we have some demographic information related with twin births, such as birth order, mother's age at the time of twin birth and sex of the twin.

Mother's Age at The Time of Twin Birth: In order to find out the relationship between mother's age and twin birth, classification of mother's age at the time of twin birth has been made into three categories i.e. upto 20 years, 21-30 years and 31 and above years. Table 1 shows

Table 1: Twin birth by Mother's Age

Age of mother at the time of twins birth	*Number of twins*	*Percentage*
- 20	5	19.23
21 - 30	10	38.46
31 and above	11	42.31
Total	26*	100.00

*Two mothers could not be taken into consideration as they failed to recall their ages at the time of birth of the twins

that older mothers delivered more twins than the younger mothers. The mothers aged 31 and above have delivered 42.31% of all twin births, whereas the mothers aged 20 years and below delivered only 19.23% of all twin births. So, it can be inferred that the probability of twin birth increases as the age of the mother increases.

Table 2: Twins by birth order

Birth order	*Frequency*	*Percentage*
1	6	21.43
2	6	21.43
3	6	21.43
4 and more	10	35.71
Total	28	100.00

Twin by Birth Order: It is generally known that the probability of twin birth increases along with the increased number of birth order. Table 2 shows the frequency of twin birth by birth order. Most of the twin births (35.71%) have taken place at birth order four. So, the present data indicate that higher the birth order, greater is the probability of twin birth.

Sex Ratio: Out of 14 twin pairs or 28 children in the study, 4 pairs are male-male, 6 pairs female-female and 4 pairs are male-female, or in other words 12 are male and 16 are female children. Analysis of the sex ratio of the present sample gives a value of 0.4286 among the Khasi of the present study.

In a recent study of Sengupta and Boruah (1996), the sex ratio was found to be 0.4969 among 974 twin births recorded in birth registers of Assam Medical College, Dibrugarh. The present finding however, supports the findings of Sengupta and Boruah (1996).

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KEY WORDS Demographic Variables. Twins. The Khasi.

ABSTRACT The association of some demographic factors with twin births has been examined among the Khasi of Shillong. It reveals that as the age of mother increases the probability of twin birth increases. The number of twin births is found to be greater in higher birth order. Sex ratio of the twin is 0.4286.

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