

## ABSTRACT

Gender Equity in Nutrition and Sex Differences in Growth among Rajbansis of North Bengal

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**Background:** Human growth is sex biased and combined effort of biology, environment and culture. Nutrition is one of the major factor which controls human growth. Therefore, gender inequity in nutrition may leads to differential growth of two sexes.

**Objectives:** The aim of this study is to explore the possibilities of such gender inequity in nutrition as a factor of differential growth, keeping in mind the natural biological difference between sexes.

**Methods:** The study was carried out by two stages; first one includes collection of demographic data which have identified sex bias health care systems using household survey, interviews and observation among 976 persons of 200 families including 525 male and 451 female. The second stage was cross sectional in nature and restricted to measure anthropological parameters like Stature, Weight and Mid Upper Arm Circumference of 112 boys and 112 girls of 6 to 12 years age. Nutritional Status is defined as weight-for-age, height for- age, weight-for-height and BMI comparing WHO as well as Indian Standard. Percentile below -2SD are considered as under-nutrition in all cases, though in case of BMI, below 5<sup>th</sup> percentile is also considered as under-nutrition as well as underweight and measured after WHO (1995) classification and BCIMS classification for Asian as well.

**Results:** Most of the children are below -2SD irrespective of sex regarding height-for-Age (boys 53.57%, girls 68.75% stunting), weight-for-age (boys 65.17% girls 58.93% underweight) and weight-for-height (boys 29.46%, girls 21.43% wasting) as per NCHS/WHO normalized reference value. The difference between genders is not significant at 0.05% level. Even the BMI below 5<sup>th</sup> percentile distribution and WHO as well as BCIMS clarification does not identify significant differences between them.

**Observation:** The role of gender inequity in nutrition may have little effect on differential growth pattern of the population. Girls appear to be better buffered than boys against the ill effect of malnutrition.

Key Words: Gender equity, Growth, Health Care, Sex Differences, Rajbansis