



Variation in Measures of Circumference and Skinfold by Age and Gender Among the Elderly Bengalee Hindus of Kolkata, India

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KEYWORDS Ageing. Body Composition. Fat Distribution. Skinfold. Nutrition. Bengalee Hindus. India

ABSTRACT Although the population of older people is increasing in India (109 millions in 1991 to 112 millions in 2001), the biological problems of ageing have not been viewed as a critical issue. The non-invasive technique of anthropometry is useful to provide information on health, body composition and nutritional condition in epidemiological and clinical studies of ageing. The present investigation studied age and sex variation simultaneously on circumference and skinfold measures among 282 (82 men and 200 women) elderly (≥ 55 years) Bengalee Hindus resident in Calcutta (South Calcutta) and its suburb, West Bengal, India. The result revealed that elderly women had significantly greater mean values for circumference measures than elderly men. Correlation studies revealed that age had significant inverse relation with all circumference and skinfold measures. However, inverse age trend was much stronger for skinfolds in both sexes than circumference measures. Regression analyses had shown that percent of variance explained by age was much greater for skinfolds than circumferences in both the sexes; however, effect was much stronger among elderly men than elderly women. It is noteworthy to mention that percent of variance (negative impact) explained by age was only 2-10% (vs. 16-18% for elderly men) for skinfolds at subscapular, suprailiac, midaxillary and abdomen in elderly women. This indicates the retaining of upper body fatness for elderly women even with increasing age. Various factors including levels of physical activity and sex hormones could have been accounted as the probable causes for this sex difference. Longitudinal studies investigating the interaction between circumference and skinfold measure with hormones are needed to fully understand the sex difference observed in the dynamics of the ageing process.

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