Abstract

Introduction: Stature is an important variable in several indices of nutritional status that are applicable to elderly persons. However, stature is difficult or impossible to measure in elderly because they are often unable to maintain the standing position. A alternative is the use of estimated height from measurements of knee height measure. Aims: This study aimed to evaluate the accuracy of the formula proposed by Chumlea et al. (1985) based on the knee of a Caucasian population to estimate the height and its application in calculation of body mass index in community-dwelling older people residents in Viçosa, Minas Gerais, Brazil. Methods: The sample included 621 elderly aged 60 years old and older, living in the community. Measures of weight, height and knee height (KH) were taken and Body Mass Index (BMI) was calculated with the measured weight and estimated. The Student’s t-test was used for comparison of measurements of height between the genders. For the comparison of estimated and measured values it was used paired t-test and also the methodology proposed by Bland and Altman to compare the difference between measurements. To evaluate the agreement between the classifications for BMI was used Cohen’s Kappa. Results: The average values obtained from KH were higher than those measured in the whole sample and women. There underestimation of BMI in females and also in the whole. Conclusions: The present results suggest that the equation Chumlea was not adequate to estimate the height of the sample in question, especially for women.

Keywords

Aging, Anthropometry, Height, Knee height.