Abstract

Introduction: Although dietitians play an important role in the anthropometric assessment, reports on measurements made by these health professionals rarely include estimates of measurement error. Aim: To estimate of intraobserver precision for three common anthropometric measurements made by dietitians. Methods: Twenty six measurers performed measurements (upper mid-arm circumference, tricipital and bicipital skinfold) in two times a sample of ten volunteers. Four precision estimates were calculated: the technical error of measurement (TEM), the relative technical error of measurement (rTEM), the coefficient of reliability (R) and the coefficient of variation (CV). Results: For skinfold thickness, rTEM was smaller than 2.2; for circumference, rTEM was smaller than 0.6. The precision to measure skinfolds was lower than the precision to circumference. Anyway, for all measurements R showed a high degree of precision (R > 95). Conclusion: Our results suggest that anthropometric parameters evaluated are sufficiently precise. However, periodical training is necessary to control and minimize the anthropometric measurement error.

Keywords

Precision, Skinfold thickness, Circumference, Intraobserver variability, Technical error of measurement.