Abstract

Objective: To assess the adequacy of predictive equations for estimation of energy expenditure (EE), compared with the EE using indirect calorimetry in a sample of Brazilian and Spanish women with excess body weight. Methods: It is a cross-sectional study with 92 obese adult women [26 Brazilian — G1 — and 66 Spanish — G2 — (aged 20-50)]. Weight and height were evaluated during fasting for the calculation of body mass index and predictive equations. EE was evaluated using the open-circuit indirect calorimetry with respiratory hood. Results: In G1 and G2, it was found that the estimates obtained by Harris-Benedict, Shofield, FAO/WHO/ONU and Henry & Rees did not differ from EE using indirect calorimetry, which presented higher values than the equations proposed by Owen, Mifflin-St Jeor and Oxford. For G1 and G2 the predictive equation closest to the value obtained by the indirect calorimetry was the FAO/WHO/ONU (7.9% and 0.46% underestimation, respectively), followed by Harris-Benedict (8.6% and 1.5% underestimation, respectively). Conclusion: The equations proposed by FAO/WHO/ONU, Harris-Benedict, Shofield and Henry & Rees were adequate to estimate the EE in a sample of Brazilian and Spanish women with excess body weight. The other equations underestimated the EE. (Nutr Hosp. 2014;29:513-518) DOI:10.3305/NH.2014.29.3.7170

Keywords