Publication

Validation of self-reported figural drawing scales against anthropometric measurements in adults

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The aim of the present study was to validate figural drawing scales depicting extremely lean to extremely obese subjects to obtain proxies for BMI and waist circumference in postal surveys.; Reported figural scales and anthropometric data from a large population-based postal survey were validated with measured anthropometric data from the same individuals by means of receiver-operating characteristic curves and a BMI prediction model.; Adult participants in a Scandinavian cohort study first recruited in 1990 and followed up twice since.; Individuals aged 38-66 years with complete data for BMI (n 1580) and waist circumference (n 1017).; Median BMI and waist circumference increased exponentially with increasing figural scales. Receiver-operating characteristic curve analyses showed a high predictive ability to identify individuals with BMI >25ǔ0 kg/m2 in both sexes. The optimal figural scales for identifying overweight or obese individuals with a correct detection rate were 4 and 5 in women, and 5 and 6 in men, respectively. The prediction model explained 74 % of the variance among women and 62 % among men. Predicted BMI differed only marginally from objectively measured BMI.; Figural drawing scales explained a large part of the anthropometric variance in this population and showed a high predictive ability for identifying overweight/obese subjects. These figural scales can be used with confidence as proxies of BMI and waist circumference in settings where objective measures are not feasible.