

Waist Stature Ratio: A Measure of Adiposity and Fat Patterning in Asian Indian

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Abstract

The relationship between obesity and nutritional status is complex. While obesity is often associated with overnutrition and excess calorie intake, it's important to recognize that individuals with obesity may still experience nutrient deficiencies, such as micronutrients. Obesity is most prominent but ignored public health issues of today and threatens to inundate the health care resources through increasing clinical consequences and additionally as a financial burden. Additionally, obesity itself can affect nutrient metabolism and utilization in the body. Therefore, while obesity and nutritional status are related, they represent different aspects of health. Addressing both requires comprehensive strategies that promote healthy dietary patterns, physical activity, and overall well-being. Hence, the identity of individuals with health dangers using easy, surrogate measures to estimate excess adiposity becoming very important. In this regard, the purpose of this study is to evaluate the incidence of obesity, considering commonly used obesity measures, and also to discern the best obesity predictor among the adult Bengalee females of West Bengal, India. Participants included 210 healthy adult menarcheal Bengalee Caste women (mean age 43.06 ± 3.4 years). Following standard procedure, anthropometric measures were taken for height, weight, hip circumference, and waist circumference. Waist-to-hip and waist-to-stature ratios were then computed. A fat monitor was used to calculate percent body fat (PBF). Out of all the adiposity measures, Waist Circumference ($r = 0.78, P < 0.001$), Hip Circumference ($r = 0.74, P < 0.001$), and Waist Hip Ratio ($r = 0.72, P < 0.001$), the results revealed that Waist Stature Ratio had the largest positive connection ($r = 0.88, P < 0.001$) with Percent Body fat. Therefore, the current study envisaged that among Asian Indian middle-aged women, WSR perhaps be the most appropriate marker/estimator for PBF.

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