



A Study of Body Mass Index & Waist-to-Hip Ratio of Male & Female Athletes

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Abstract

Aim: The aim of the study was to observe body mass index and waist-to-hip ratio of male & female athletes. **Materials and Methods:** The present study was conducted on 10 female athletes of different events of athletics (Group 1), 14 male wrestlers of different weight categories (Group 2) and 19 male football players (Group 3) and their age ranged from 12-28 years. **Results:** It was found that there was a statistical significant difference of age ($F = 32.68, p < .001$), height ($F = 6.96, p = .003$), weight ($F = 15.89, p < .001$), hip circumference ($F = 6.54, p = .003$), waist Circumference ($F = 6.61, p = .003$), and BMI ($F = 13.618, p < .001$). **Conclusion:** It was concluded that the mean waist circumference, WHR and BMI of female athletes (group1), male wrestlers (group2) and male football players (group 3) were normal as per WHO Expert Consultation on Obesity and NHLBI Obesity Education Initiative. Further, it was found that wrestlers (group 2) having higher mean body weight, hip circumference, waist circumference and BMI than athletes and football players (group 1 and group 3).

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Introduction

The 1997 WHO Expert Consultation on Obesity recognized the importance of abdominal fat mass (referred to as abdominal, central or visceral obesity), which can vary considerably within a narrow range of total body fat and body mass index (BMI). It also highlighted the need for other indicators to complement the measurement of BMI, to identify individuals at increased risk of obesity-related morbidity due to accumulation of abdominal fat (WHO, 2000a). Waist-hip ratio (i.e. the waist circumference divided by the hip circumference) was suggested as an additional measure of body fat distribution. The ratio can be measured more precisely than skin folds, and it provides an index