

## **A Study on Body Composition and Hand Grip Strength of Junior Free Style Wrestlers**

**Parwinder Singh and Ashok Kumar**

### **Abstract**

**Aim:** The aim of this study was to examine the body composition and hand grip strength of different weight categories of junior free style male wrestlers. **Method:** one hundred fifty (N=150) male junior free style wrestlers were participated as subjects and they were further divided into five groups according to their weight categories, each group was comprised of thirty wrestlers. Body fat percentage was estimated by using Durnin and Womersley equation and the strength was measured from hand grip test. **Results:** A statistical significant positive correlation was found between the hand grip strength and age, height, weight, BMI, skinfold thickness and %BF. **Conclusion:** it is concluded that the free style wrestling is a weight classified sport; therefore the correlation of weight of the wrestlers with strength is important. The results of the present study also demonstrated the effect of age, height, BMI, and BF % on the hand grip strength of wrestlers.

**Parwinder Singh**, Ph.D Student, Department of Sports Science, Punjabi University Patiala (Punjab) India  
**Ashok Kumar**, Associate Professor, Department of Sports Science, Punjabi University Patiala (Punjab) India  
E-mail:akashokin@gmail.com

**Key Words:** Free Style, Wrestling, Skinfold, Anthropometry, Strength, Fat Percentage

**DOI:** 10.18376/jesp/2016/v12/i2/111260

### **Introduction**

A sport of wrestling has a strong tradition that precedes the first Olympic festival in 776 B. C., when Zeus wrestled Kronas for the possession of the earth (Gallagher, 1951). Since then the sport of wrestling continues to grow in popularity because of the discipline and mental toughness it requires to be successful in the sport. Unfortunately, the sport has also been associated with the stigma of “cutting weight” and the practices that accompany the process of competing at designated weight classes. Like the sports of judo, boxing, and competitive weight lifting, wrestling requires its athletes to compete at specific weights or weight classifications. Typically, these weight classifications differ by approximately 7-11 pounds depending on age and style of wrestling. It is common knowledge in present day of wrestling that wrestlers compete in weight classes below their “normal” weight. The purpose of this practice is to gain advantages in strength, speed, and leverage over their opponents (Steen & Brownell, 1990). The changes in regulation of wrestling have forced several modifications in the fitness requirements of successful wrestlers, which as a result caused an evolution in the training methods (Yoon 2002; Horswill 1992; Sharratt et. al., 1986). Wrestling has been described as an intermittent physical event which produces great strength and muscle power demands of both the upper and lower body (Hubner-Wozniak et. al. 2004; Kraemer et. al.