

## Study of physiological indices in non-athletic men with different temperaments

Saeed Vahedi<sup>a\*</sup>, Milad Rahati<sup>a</sup>, Seyed Reza Attarzadeh Hoseini<sup>a</sup>, Mehrdad Fathei<sup>a</sup>

<sup>a</sup>Department of Sport Physiology, Faculty of Sport Sciences, Ferdowsi University of Mashhad, Mashhad, Iran.

### Abstract:

**Background and purpose:** In the field of health, WHO has endeavored to develop traditional medicine. Temperament plays a key role in traditional Persian medicine showing the individual differences. These individual differences have an important role in the direction of the individual's health. The purpose of this study was to investigate these differences in dominant temperament as the important factors in the body composition.

**Methods and Materials:** The present research had a comparative method with four groups (cold-wet, warm-wet, cold-dry, and warm-dry temperaments). In this research, the relationship between temperament and physiological factors in non-athlete young men was investigated. Subjects were evaluated by a body composition assay. After collecting and importing data in SPSS software version 21, raw data was analyzed.

**Results:** Intracellular water was significantly higher in cold-wet temperament than others. Extracellular water was also higher in cold-wet temperament, and only this difference was not significant between cold-wet and cold-dry temperaments. Relative muscle percentage in warm-wet temperament was significantly higher than other temperaments. Relative fat percentage was higher in cold-wet temperament. Body proteins were higher in warm-wet temperament in comparison to other temperaments however; there was no significant difference between the warm-wet and the warm-dry temperaments. The amount of minerals in warm-dry temperament was higher in comparison to other temperaments; this difference was significant only between warm-dry and cold-wet temperaments. The waist to pelagic index showed the highest amount in the cold-wet temperament and this difference was significant comparing three other temperaments. Visceral fat was also significantly higher in the cold-wet temperament. Basal metabolic rate was significantly higher in warm-wet temperament. The body mass index was the highest in cold-wet temperament which was statistically different with other temperaments. The total body water was also significantly higher in cold-wet temperament.

**Conclusion:** Individual differences in terms of temperament are related to physiological differences that are important in determining health policy.

**Keywords:** Temperament, Body Composition Indices, Individual Differences

Corresponding Author: Saeedvahedi09@gmail.com