120 EVALUATION OF THE BODY PROPORTIONS AMONG ALL-INDIA INTER-COLLEGIATE BASKETBALL PLAYERS

M Elayaraja,[1] A S Nageswaran,[2] J Viswanathan[3] *[1]Department of Physical Education and Sports Sciences, Annamalai University, Chidambaram, Tamil Nadu, India; [2]H. H. The Rajah's College, Pudukkottai, Tamil Nadu, India; [3]Department of Physical Education, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India*

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Body size, shape and proportionality have been discovered to impose constraints upon capacity for optimal performance in sports. The purpose of this study was to evaluate the body proportions of percent body fat, fat mass and fat-free mass, and muscle mass of basketball players participated in All India Inter-Collegiate basketball tournament organised at Banaras Hindu University, Varanasi, Uttar Pradesh, India from 27 January 2009 to 1 February 2010. Purposive sampling technique was used to select 55 basketball players (15 guard, 22 forward and 18 post players) who represented the state at National Basketball Championships. The instruments for data collection were weighing scale used to measure body weight, stadiometer to measure body weight, Harpenden skinfold caliper to measure skinfold thickness – biceps, triceps, supra-iliac and subscapular to calculate % body fat, fat mass and fat-free mass. All the measurements were taken by the ISAK level-2 accredited anthropometrists. The descriptive statistics of mean and SD and one-way analysis of variance were used to test inter-players positional differences in height, weight and body proportion estimations. The result reveals that basketball players has high fat free mass, muscle mass and a normal BMI, but low fat mass and % body fat which was at a risk zone even for wellness when compared with standard norms. This low % body fat and a high muscle mass calls for nutritional interventions, since the more muscle mass the higher the metabolic rate and a need for more calories to meet up their energy need.