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Faculty of Applied Sciences

Department of Sports Science and Coaching

Topic:

**ASSESSMENT OF THE NUTRITIONAL AND ANTHROPOMETRIC  
PROFILE OF ADOLESCENT BASKETBALL ATHLETES IN ZIMBABWE**

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## Abstract

*The purpose of the study was to determine and assess the nutritional and anthropometric profile of the adolescent basketball athletes in Zimbabwe. Their nutritional provision was compared to the American Guideline (2010) and the anthropometric measurements were statistically computed. However little is known about the nutritional and anthropometric profile of the athletes of this modality. Methods: Thirty subjects (15 boys and 12 girls) aged  $16.48 \pm 1.0$  years of age were screened from the two selected private boarding schools' basketball teams. Anthropometric variables were measured using the International Society of the Advanced Kinanthropometry procedures. Measurements included the skinfolds (triceps, Subscapular, biceps, suprailiac, Supraspinale, abdominal, thigh and the calf), girths (arm [relaxed], arm [flexed and tensed], waist minimum, Gluteal [hips] and the calf) and breadths (femur and humerus). Body mass index (BMI), waist-to-hip ratio (WHR), percentage body fat (%BF), fat mass (FM) and fat-free mass (FFM) were also calculated as body composition variables. Results: showed mean body mass ( $67.26 \pm 12.77$ ), stretched stature ( $169.77 \pm 6.69$ ), body fat percentage ( $21.02 \pm 3.84$ ), body mass index ( $23.30 \pm 3.75$ ), total body fat ( $14.43 \pm 5.07$ ), fat free mass ( $52.92 \pm 8.41$ ), waist hip ratio ( $0.74 \pm 0.08$ ),  $\Sigma 8$  skinfolds ( $95.35 \pm 35.91$ ),  $\Sigma 5$  girths ( $261.89 \pm 29.52$ ) and the  $\Sigma 2$  breadths ( $16.03 \pm 1.12$ ). At 5% level of significance the athletes showed no significant differences of these variables between the playing positions. The three day dining hall diaries were used to obtain the data about the athletes' nutrition (school) to determine adequacy of their macro nutrients intake. The nutritional results show daily caloric mean intake of carbohydrates (56.7%), proteins (13.8%) and fats (29.5%). Carbohydrates and proteins were below the athletes' recommendations while fats were within the athletic range.*

**Keywords:** Basketball players, anthropometry, body composition, nutrition.