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COMPARISON OF SPEED AND AGILITY BETWEEN BASKETBALL AND FOOTBALL PLAYERS

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Abstract

The purpose of the study was to compare the speed and agility between basketball and football players of Balkumari College, Chitwan, Nepal. We have selected thirty (30) male students who play either basketball or football from Balkumari College. These subjects were equally classified into two groups (Basketball = 15 & Football = 15). The selected subjects were tested on speed by 50 yard dash and agility by shuttle run which was selected as criterion variable. The collected data was analysed using independent t test to find out the significant difference between basketball and football players. The result of our study showed that basketball players have greater speed than football players (t = 5.82). However, no difference is elicited between basketball and football players (t = 0.82). It is found that speed and agility plays a vital role in both game, however basketball players showed greater speed than Football players may be because of intermittent nature and employ sprint during the game.

Keywords: Basketball, Football, Speed, Agility, Shuttle run, 50 yards dash.

Introduction

Physical education is the integral part of total education. The wealth of nation depends upon the health of the people good personality can be developed through participation in games and sports. Physical education is an educational process to improve the human performance and enhancement of human development, through the medium of physical activities. Physical education includes the acquisition and refinement of motor skills, the development and maintenance of fitness for time health and well-being, the attainment of knowledge about physical activities and exercise. Physical fitness is a matter of fundamental importance to the well-being of every individual. The people of ancient were aware of the importance of physical fitness. They did not have any systematic programme to develop physical fitness. Yet they kept themselves fit by participating in activities in their daily life. The modern society has created sophisticated life to individuals which placed them sedentary and physically unfit. Though these changes are part, coaches and trainers have planned conditioning programs for their teams by following regimens used by teams that have successful win-loss records. This type of reasoning is not sound because win loss records alone do not scientifically validate the conditioning programs used by the successful teams. In fact, the successful team might be victorious by virtue of its superior athletes and not its outstanding conditioning program. Without question, the planning of an effective athletic conditioning

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program can best be achieved by the application of proven physiological training principles. Optimizing training programs for athletes is important because failure to properly condition an athletic team results in a poor performance and often defeat. Basketball is a sport with great anaerobic demand. During the game, tasks such as pushing and blocking require high power and strength levels in the limbs and trunk regions (Gorostiaga et al. 2005; Izquierdo et al. 2002; Wallace and Cardinale 1997). Gorostiaga et al. (2005) reported that stronger players with higher body mass have an advantage in basketball because the requirements of the game, such as throwing the ball with power and speed, are met through jumping and physical contact with the opponent. The characteristics of football, including speed, jumping for kicks and blocks at high intensities over a short period of time result in fast and agile athletes who possess a high level of muscular strength and aerobic fitness (Gabbett et al. 2008). Adolescents are selected for this sport based on their skills, performance levels, physique and muscular strength (Benetti et al. 2005). In this two games require a periodic fast sprints and change of direction quickly and frequently. This study allows them to realize their potentials and also it benefits the beginners who can improve their fitness. Therefore, the purpose of the study was to compare the speed and agility between basketball and football players of Balkumari College.

Methodology

Fifteen (15) basketball and fifteen (15) football players were selected as subjects from Balkumari College, Chitwan, Nepal. There ages ranged from 19 to 25 years and had minimum four years of playing experience. The selected subjects were tested on speed by 50 yard dash and agility by shuttle run test which was selected as criterion variable. The collected data was analysed using independent t test to find out the significant difference between basketball and football players on speed and agility. SPSS statistic software package (SPSS Company, America, version 17.0) was used. The α value of 0.05 was set for statistical significance.

Results

Table 1 clearly show that mean value of speed for basketball and football players were 7.51 and 9.15 respectively. The obtained t ratio on speed is 5.82, which is greater than the required table value for df 28 is 2.05 significant at 0.05 level of significance. This shows that basketball players show greater sprinting character than Football players.

Table 1
DESCRIPTIVE AND T VALUE OF BASKETBALL AND FOOTBALL PLAYERS

Variables	Groups	Mean ± SD	t value
Speed	Basketball	7.51 ± 0.73	5.82*
	Football	9.15 ± 0.78	
Agility	Basketball	11.16 ± 0.55	0.82
	Football	11.35 ± 0.76	

*Significant at 0.05 level of significance

Table 1 clearly show that mean value of agility for basketball and football players were 11.16 and 11.35 respectively. The obtained t ratio on agility is 0.82, which is less than the required table value for df 28 is 2.05 is not significant at 0.05 level of significance.

Discussion

The present findings of the study showed that speed differs significantly between basketball and football players but agility remained unchanged between the groups. Shuttle run test was administered to measure agility of basketball and football players, which shows no significant difference. Although basketball are more agile than football players which is

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supported by Rani, Singh & Kalsi (2013) that agility is a crucial factor of an players in taking a fast, precise and accurate decision.

The present study assessed the speed of the basketball and football players using the sprint test, which measures maximum speed that can be applied to any movement and depends on the development of agility, dynamic force, muscle elasticity, movement frequency and coordination as well as the domains of the movements employed. In the current study, basketball players performed better in this test compared to football players. The reason for the difference in speed between basketball and football players may be because of intermittent characteristics and employs sprint speeds during attack and counterattack actions in the basketball game, whereas Football generally utilises reaction speed (Castagna et al. 2009; Gabbett and Georgieff 2007).

Conclusion

Compared players who played basketball and Football, which showed basketball players scored higher scores in speed but no difference in agility. The results of the study help coaches of Balkumari College to identify the talents and to understand the speed and agility affected by the practise of these sports.

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